A CROP WILD RELATIVE CONSERVATION STRATEGY FOR MEXICO

By

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ABSTRACT

There is an extensive diversity of crops and their wild relatives in Mexico, which are distributed throughout the country. Crop wild relatives (CWR) play a special role for present and future food security strategies: they represent a potential source of variation for the domesticated species, contributing to the genetic improvement of these crops. However, the effects of climate change, among other threats, are reducing significantly this biodiversity. The purpose of this study was to analyze the diversity of wild relatives of the most important crops in Mexico as a basis for the development and implementation of a national conservation strategy for these genetic resources. The methods involved the identification of priorities and creation of a national CWR inventory, *in situ* and *ex situ* gap analyses at taxon and ecogeographic levels, the evaluation of the impacts of climate change, threat assessment and predictive characterization. Applying these methods, 310 CWR taxa were identified as priorities and recommendations for immediate *in situ* and *ex situ* conservation actions were made to ensure their representativeness under current and future climatic conditions. All these components contribute to the systematic active long-term conservation of priority CWR diversity in the country and enhance their sustainable utilization thus helping mitigate the threats to Mexican agrobiodiversity and global food security.

For Elías and Edahí

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LIST OF ABBREVIATIONS AND ACRONYMS

AI_L: Aridity index of Lang

CBD: Convention on Biological Diversity

CGIAR: Consultative Group on International Agricultural Research

CIAT: Centro Internacional de Agricultura Tropical (International Center for Tropical Agriculture)

CIMMYT: Centro Internacional de Mejoramiento de Maíz y Trigo (International Maize and Wheat Improvement Centre)

CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMIP5: Coupled Model Intercomparison Project Phase 5

CNRG: Centro Nacional de Recursos Genéticos (National Genetic Resources Center)

CONABIO: Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (National Commission for the Knowledge and Use of Biodiversity)

CONAFOR: Comisión Nacional Forestal (National Forestry Commission)

CP: Colegio De Postgraduados (Postgraduate College in Agricultural Sciences)

CWR: Crop Wild Relative

ELC: Ecogeographic Land Characterization

FAOSTAT: Food and Agriculture Organization of the United Nations statistical database

FIGS: Focused Identification of Germplasm Strategy

GBIF: Global Biodiversity Information Facility

GCM: General Circulation Model

GIS: Geographic Information System

GP: Gene Pool

GRIN: Germplasm Resources Information Network

GSPC: Global Strategy for Plant Conservation

INECC: Instituto Nacional de Ecología y Cambio Climático (National Institute of Ecology and Climate Change)

INEGI: Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography)

INIFAP: Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (National Institute of Forestry, Agriculture and Livestock Research)

IPCC: Intergovernmental Panel on Climate Change

IUCN: International Union for Conservation of Nature

MSPC: Mexican Strategy for Plant Conservation

PA: Protected Area

RCP: Representative Concentration Pathway

REMIB: Red Mundial de Información sobre Biodiversidad (World Biodiversity Information Network)

SAGARPA: Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food)

SD: Standard Deviation

SDM: Species Distribution Models

SEMARNAT: Secretaría del Medio Ambiente y Recursos Naturales (Secretariat of Environment and Natural Resources)

SIAP: Servicio de Información Agroalimentaria y Pesquera (Agrifood and Fisheries Information Service)

TG: Taxon Group

UACH: Universidad Autónoma Chapingo (Chapingo Autonomus University)

UdeG: Universidad de Guadalajara (University of Guadalajara)

USDA, NPGS: U.S. National Plant Germplasm System

DECLARATION

The work presented in Chapter 2 has been accepted for publication in Crop Science. The content of the chapter is largely identical to the manuscript presented for publication. The Red List Assessments listed below were used in Chapter 5 and are published by the IUCN Red List of Threatened Species. The information in Chapters 3 and 4 is prepared for submission for publication.

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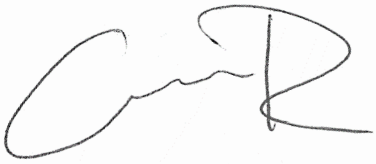
My contributions to the assessments were: Compiled data and Performed the draft assessment.

Dr. Nigel Maxted   Date: 28.02/18



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CHAPTER 1

INTRODUCTION

1.1 DIVERSITY AND AGROBIODIVERSITY

1.1.1 Biodiversity and ecosystem services

The biological diversity, or biodiversity, in the world is not distributed equally among all the countries. Much of this biodiversity is found in what was called *megadiversity countries* (Mittermeier, 1998). Mittermeier (1998) estimated that 50–80% of the whole diversity was not only concentrated in these countries, but also he was aware that the ecological change was threatening a wide proportion of this diversity. Currently, the recognized megadiverse countries are Australia, Brazil, Colombia, Democratic Republic of Congo, China, Ecuador, India, Indonesia, Madagascar, Malaysia, Mexico, Papua New Guinea, Peru, Philippines, South Africa, United States of America and Venezuela (Mittermeier *et al*., 1997). This megadiverse status is based on both the total number of species and the endemic species present in the country. About 70% of the global biodiversity is concentrated in these countries (Mittermeier *et al*., 1997). In the year of 2002, twelve of these countries created the *Group of Like-minded Megadiverse Countries* to coordinate, promote and develop the knowledge, conservation, and equitable benefit sharing of the biodiversity, among other activities related to the protection and sustainable utilization of the biodiversity (CBD, 2002).

Several *hotspots* have been identified in the world to host a great proportion of species and endemisms, but also facing great threats of degradation. These hotspots host 20% of the world's plant species (almost 50,000 endemic plant species) in only 0.5% of the world's surface (Myers, 1988; 1990). More recently, hotspots of vascular plants or *global centers of vascular plant diversity* have been identified (Mutke and Barthlott, 2005), through the analysis of the patterns of plant richness. The hotspots identified are the north western Amazonia, tropical eastern Andes, eastern Brazil, northern Borneo, Chocó-Costa Rica, East Himalaya, eastern Madagascar, Malaysia, southern Mexico, and New Guinea, South African

Cape region and western Sumatra (Mutke and Barthlott, 2005). Many of these regions are in accordance with the megadiverse countries and the previous hotspots identified by Myers (1988) and Myers (1990). The hotspots with higher diversity are mainly in the tropic and sub-tropic areas; some of these areas host 5,000 vascular plant species on 1,200 km^2 in Borneo and up to 60 gymnosperm species in 10,000 km^2 in South Eastern Asia (China) (Mutke and Barthlott, 2005).

The biodiversity is the main source of ecosystem goods, thus, the supply of ecosystem services relies greatly on it (Millennium Ecosystem Assessment, 2003). Ecosystem services are the benefits people obtain from ecosystems to maintain their well-being and development (Millennium Ecosystem Assessment, 2003). There are several classifications of the ecosystem services (Millennium Ecosystem Assessment, 2003; TEEB, 2010a; Haines-Yong and Potschin, 2013; Haines-Yong *et al*., 2016). The classification of services proposed by the Common International Classification of Ecosystem Services (CICES) includes: a) provisioning services, referring to all nutritional, material and energetic outputs from living systems, *e.g*. food, water and energy; b) regulation and maintenance services, which are the ways in which living organisms can moderate the environment, *e.g*. pest and disease control, pollination and seed dispersal; and c) cultural services, the significant non-material outputs of ecosystems that affect physical and mental states of people, *e.g*. spiritual, recreational, and aesthetic appreciation (Haines-Yong and Potschin, 2013; Haines-Yong *et al*., 2016). However, the demand for ecosystem services is growing rapidly while the ecosystems are altered due to human activities (Millennium Ecosystem Assessment, 2003; 2005; Costanza *et al*., 2014). Changes in the composition of biodiversity can alter the ecosystem functions to a point that they can be difficult, expensive or impossible to reverse (Hooper *et al*., 2005). Valuing the costs and benefits of ecosystem services can serve to elucidate the significance of their contributions to human well-being (DEFRA, 2007; Costanza *et al*., 2014), not only in economic terms, but also socio-cultural and ecological (Millennium Ecosystem Assessment, 2003; 2005; TEEB, 2010a, b; de Groot *et al*., 2012; Cooper *et al*., 2016; Small *et al*., 2017).

The biodiversity present in Mexico is attributed to the broad variety and evolution of the climatic, geological and edaphic conditions (Espinosa *et al*., 2008; Halffter *et al*., 2008). The continuous tectonic activity has contributed to the heterogeneity of the country's geography, developing the main mountain systems (Ortega *et al*., 2000). Areas of more than 5,000 masl can be observed, but also, there are vast regions at sea level, especially in the Peninsula of Yucatán and the Gulf of Mexico (INEGI *et al*., 1990). There is also a wide variation of soils in the country. The main soil types are Leptosol, Regosol, Phaeozems, Calcisol, Luvisol and Vertisol, covering the 81.7% of the country's surface (INIFAP–CONABIO, 1995). Figure 1.1 shows the variation of soils in Mexico. The complex range of types of soil has influenced the biodiversity of the country, as they are a determinant factor for the vegetation distribution (Miranda and Hernández, 1963; Rzedowski, 1978). Figure 1.2 shows one of the many classification systems to define the wide diversity of vegetation types and land use in Mexico. One of most accepted classification is that of Rzedowski (1978) who described 10 main vegetation communities: tropical rainforest, subdeciduous tropical forest, deciduous tropical forest, thorn forest, grassland, xeric scrubland, oak forest, coniferous forest, humid montane forest and aquatic and subaquatic vegetation. Challenger and Soberón (2008) described 7 groups: tropical rainforest, deciduous tropical forest, humid montane forest, mix broadleaf and coniferous forest, xeric scrubland, grasslands and wetlands. Villaseñor and Ortiz (2014) grouped the plant communities in five vegetation types: tropical humid forest, humid mountain forest, temperate forest, seasonally dry tropical forest and xeric scrubland.

The climate variation of Mexico has also a great effect in the biodiversity thanks to the influence of the Tropic of Cancer that divides the transition area between the arid and semiarid regions in the northern portion of the country, from the humid and semi-humid regions in the southern region (Rzedowski, 1978). There are heterogeneous precipitation and temperature regions (García and CONABIO, 1988; Vidal-Zepeda, 1990) that in combination with the elevation variety and other factors generate the variety of climates of Mexico, from warm and humid, dry, temperate and humid and cold, with a wide range of subdivisions within each of them (Rzedowski, 1978; García and CONABIO, 1998). The diversity of climates present in Mexico is shown in Figure 1.3.

Moreover, the country is located in what is called the *Transition Zone* (Darlington, 1957; Halffter, 1962; 1987). This zone has been the converging, interaction and combination point of the biotic population from the Nearctic and Neotropic biogeographic regions, from the north and south of the American continent respectively. The number of biogeographic regions of the Nearctic, Mexican Transition Zone (MTZ) and Neotropic is not absolutely defined. These biogeographic regions share physiographic and ecologic characteristics for two or more species (Espinosa *et al.*, 2008). The main biogeographic regions are California, Baja California, Sonora, Central Mexican Plateau; Tamaulipas, de Yucatán Peninsula, Sierra Madre Occidental, Sierra Madre Oriental, Trans-Mexican Volcanic Belt, Balsas Basin, Sierra Madre del Sur, Sierra Madre de Chiapas, Mexican Pacific Coast and Gulf of Mexico. (Morrone, 2001; 2005). The biogeographic regions are represented in Figure 1.4. Biotic populations sharing the same origin in a biogeographic region (cenocrons) can be identified within the MTZ, namely the Montane Mesoamerican cenocron, the Paleoamerican cenocron, the Nearctic cenocron and the Tropical Mesoamerican cenocron (Morrone, 2005; 2010). This interaction between the North and South American populations has not been continuous for the land populations, as the country was under the marine water during the Jurassic and Cretaceous periods, connecting the Gulf of Mexico and the Pacific Ocean (Kellum, 1944). It was after the Late Cretaceous period that the absolute emergence of the country began (Kellum, 1944) and led the continuous migration of organisms.

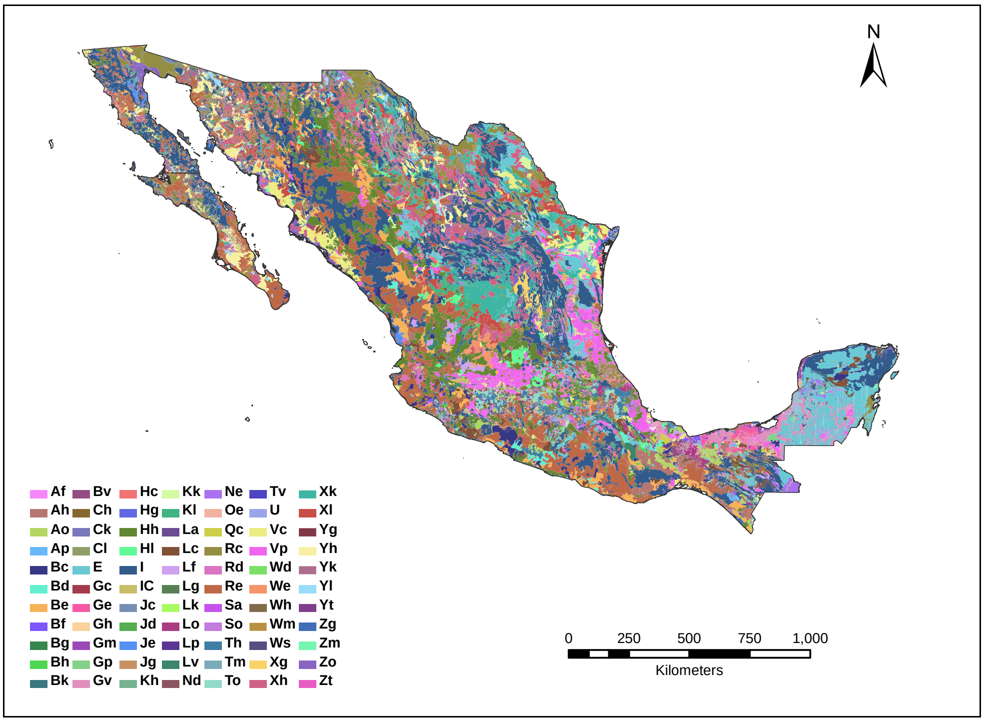

Figure 1.1. Soil types of Mexico. Scales 1:250000 and 1:1000000. Geographic coordinate system is WGS 1984 (Source: INIFAP–CONABIO, 1995).

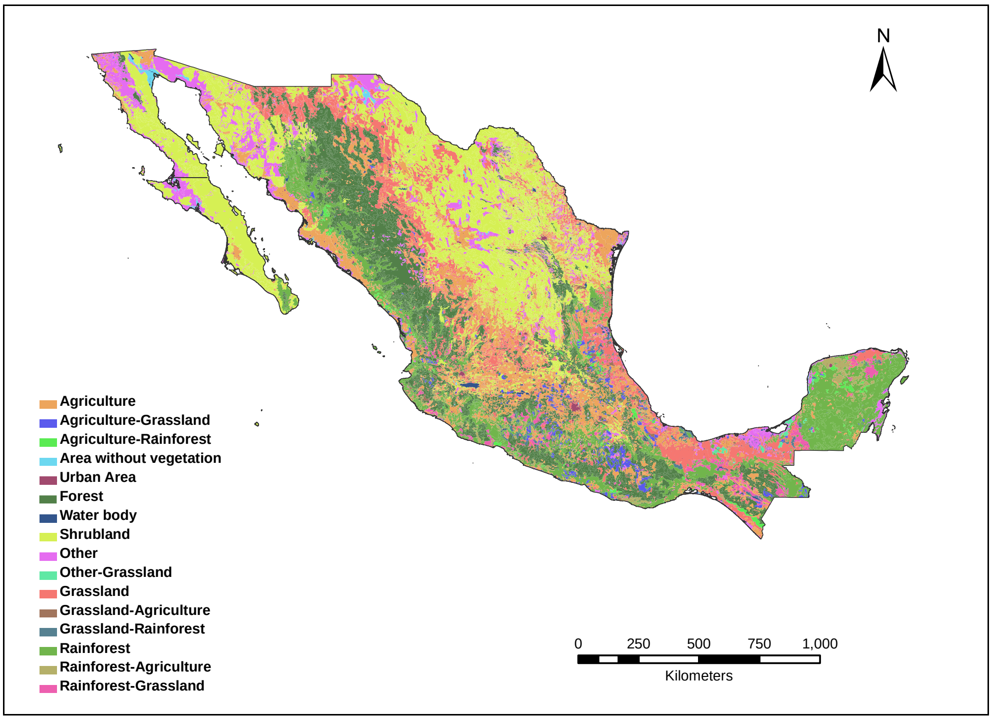

Figure 1.2. Land use and vegetation types of Mexico. Scale 1:1000000. Geographic coordinate system is WGS 1984 (Source: INEGI, 2005).

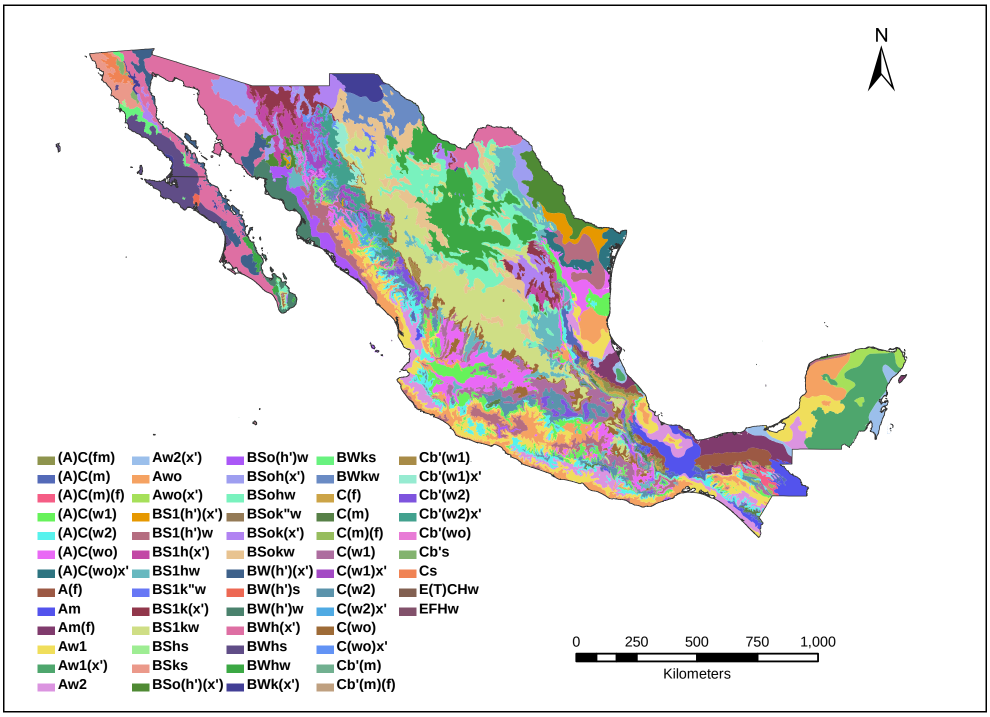

Figure 1.3. Climates of Mexico. The types are based on the classification of Koppen modified by García. Scale 1:1000000. Geographic coordinate system is WGS 1984 (Source: García and CONABIO, 1998).

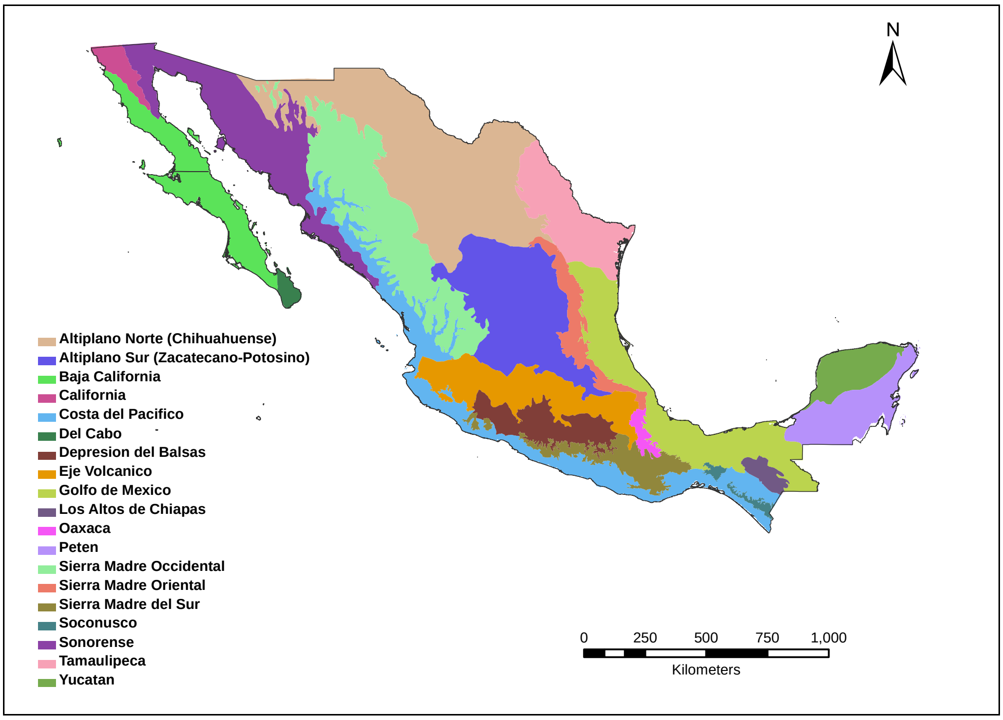

Figure 1.4. Biogeographic regions of Mexico. Scale 1:4000000 Geographic coordinate system is WGS 1984 (Source: CONABIO, 1997).

1.1.2 Plant diversity of Mexico

Mexico is among the megadiverse countries for its overall biological diversity. Positioned in the 5th position regarding only the vascular plant diversity, after Brazil, Colombia, China and Indonesia, Mexico possesses about 25,000 plant species (Mittermeier *et al*., 1997; Llorente-Bousquets and Ocegueda, 2008; CONABIO, 2009; Villaseñor and Ortiz, 2014; Villaseñor, 2016). In the most recent checklist of the vascular plants in Mexico, Villaseñor (2016) reported 297 families, 2,854 genera and 23,314 species, and 1,414 subspecific taxa. The families with the major number of species are Asteraceae (3,057), Fabaceae (1,903), Orchidaceae (1,213), Poaceae (1,047), Euphorbiaceae (714), Rubiaceae (707), and Cactaceae (677); these families represent about 40% of the overall vascular plants in the country (Source: Villaseñor, 2016). The genera with the major number of species are *Salvia* (328), *Euphorbia* (245), *Tillandsia* (237), *Quercus* (174), and *Mammillaria* (169), representing about

5% of the Mexican vascular flora (Source: Villaseñor, 2016) (Figure 1.5). Oaxaca, Chiapas, Veracruz, Jalisco and Guerrero are the top 5 Mexican states with the highest number of species (Villaseñor and Ortiz, 2014; Villaseñor, 2016). From this vast diversity present in Mexico, a high proportion (about 40–50%) are endemic to the country (Rzedowski, 1991a, b; Villaseñor, 2004; Sarukhán *et al*., 2009; Villaseñor and Ortiz, 2014; Villaseñor, 2016). An estimate of 11,000 species are endemic to Mexico (Villaseñor and Ortiz, 2014), and 3,167 species are endemic to only one Mexican state (Villaseñor, 2016). In Oaxaca, for example, 10,229 plant species can be found, representing about 44% of the total flora, 17% of which are endemic to the country and 3% are endemic to the state (Villaseñor, 2016).

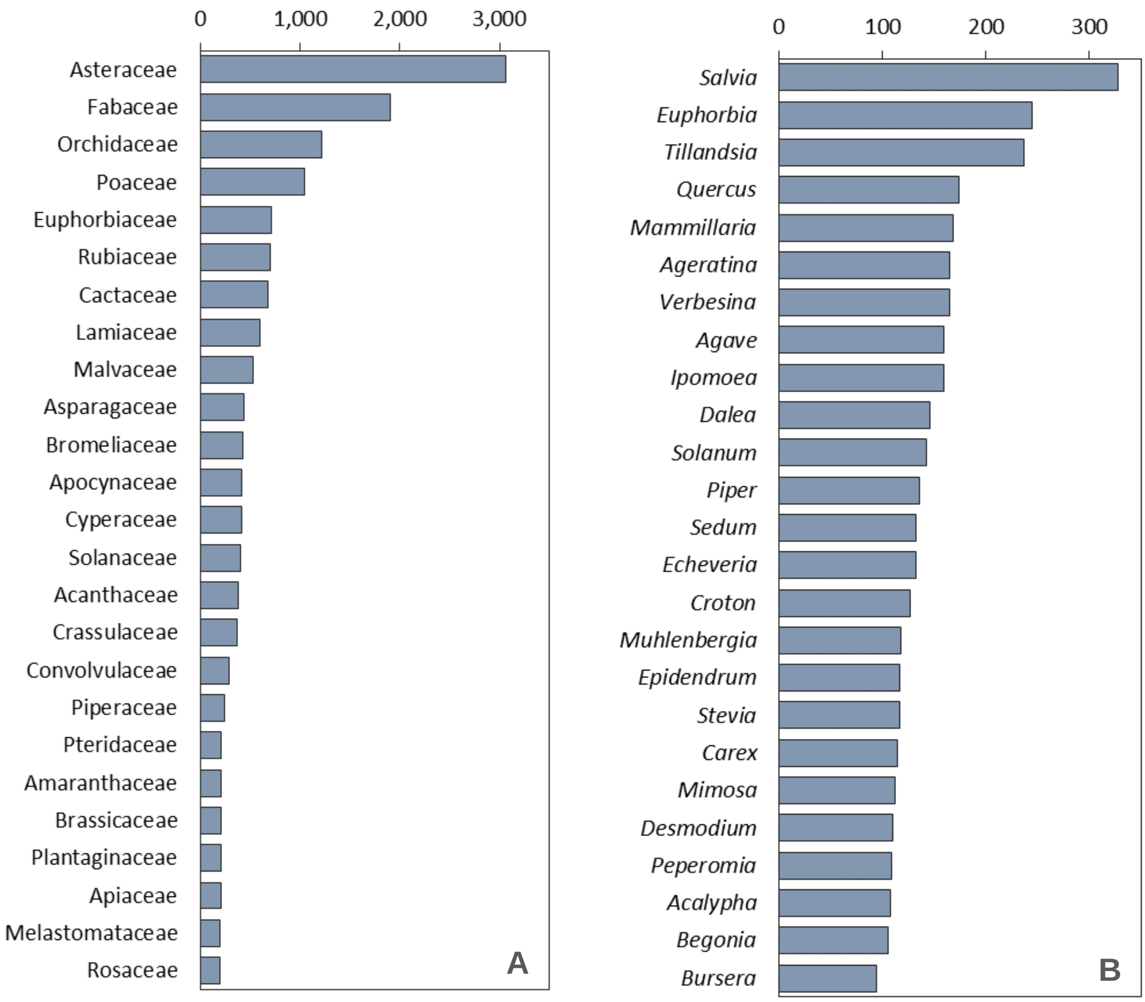

Figure 1.5. Top 25 families (A) and genera (B) with the highest number of species of vascular plants of Mexico (Source: Villaseñor, 2016).

1.1.3 Agrobiodiversity and its diversity in Mexico

A subset of the biodiversity that "includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agro-ecosystem: the variety and variability of animals, plants and micro-organisms, at the genetic, species and ecosystem levels, which are necessary to sustain key functions of the agro-ecosystem, its structure and processes" (CBD, 2017) is considered as agrobiodiversity, and it is the basis of food security (CBD, 2017). Four main dimensions of agrobiodiversity can be recognized, namely a) genetic resources for food and agriculture that constitute the main units of production in agriculture (plant, animal, microbial and fungal genetic resources), including cultivated, domesticated, managed wild species and wild relatives; b) agrobiodiversity that provide ecological services, including: soil nutrient cycling, erosion control, hydrological cycling, pest and disease regulation, pollination, habitat maintenance, climate regulation; c) abiotic factors that have a determining effect on agricultural biodiversity; and d) socio-economic and cultural factors, such as traditional and local knowledge of agricultural biodiversity and tourism associated with agricultural landscapes (CBD, 2017).

Plant diversity of Mexico during the establishment of many ethnical groups, more than 30,000 years ago, was the basis of the agriculture development and rising of the Mesoamerican cultures (Molina and Córdova, 2006). Mexico is also known as a Vavilov center of origin (Vavilov, 1992), domestication and diversification of many of the worldwide most important crops (Table 1.1). Maize, domesticated more than six thousand years ago (Piperno and Flannery, 2001), and *Phaseolus*, with 52 of the 63 known species found in Mexico (Delgado-Salinas *et al*., 1999), are well known examples.

Table 1.1. Plant genera and species with their center of origin, domestication or diversification in Mexico or Mesoamerica (Reproduced from: Acevedo Gasman *et al*., 2009).

Species	**Common name**	**Center of Origin (O), Domestication (Do), Diversification (Di)**	**References**
Agave spp.	Agave	O, Do, Di	2, 3, 6, 7, 10
Capsicum spp.	Pepper	O, Do, Di	2, 3, 7, 10
Zea mays subsp. *mays* L.	Maize, Sweet corn	O, Do, Di	2, 3, 7, 8, 9, 10
Amaranthus spp.	Amaranth	O, Do	1, 2, 3, 7
Cucurbita spp.	Squash, chilacayote	O, Do	2, 3, 4, 7, 10
Gossypium hirsutum L.	Cotton	O, Do	2, 3, 7, 8, 10
Phaseolus vulgaris L.	Common bean	O, Do	2, 3, 5, 6, 7, 8, 10
Sechium edule (Jacq.) Sw.	Chayote	O, Do	2, 3, 4, 7
Vanilla planifolia Andrews	Vanilla	O, Do	2, 3, 7
Anacardium occidentale L.	Cashew nut	Do	2, 3
Ananas comosus (L.) Merr.	Pineapple	Do	2, 3
Annona spp.	Cherimoya, castor apple	Do	2, 3
Arachis hypogaea L.	Peanut	Do	2, 3
Bixa orellana L.	Achiote, annatto	Do	2, 3, 7
Byrsonima crassifolia (L.) Kunth	Nance, golden spoon	Do	2, 3, 7
Carica papaya L.	Papaya, paw-paw	Do	2, 3, 7
Casimiroa edulis La Llave & Lex.	White sapote	Do	2, 3
Castilla elastica Sessé	Rubber tree	Do	2
Dysphania ambrosioides (L.) Mosyakin & Clemants	Epazote, wormseed	Do	2, 3, 7
Chenopodium berlandieri Moq. subsp. *nuttalliae* (Saff.) H.D. Wilson & Heiser	Huauzontle, pitseed goosefoot	Do	2, 3, 7
Cnidoscolus chayamansa McVaugh	Chaya, tree spinach	Do	2, 3, 7
Crataegus mexicana DC.	Tejocote, Mexican hawthorn	Do	2, 3, 7
Dahlia spp.	Dalia	Do	2, 3, 7
Dioscorea spp.	Barbasco, yam	Do	2, 3
Euphorbia pulcherrima Willd. ex Klotzsch	Nochebuena, poinsettia	Do	2, 3, 7
Gliricidia sepium (Jacq.) Kunth ex Walp.	Cacahuananche, quickstick	Do	2, 3
Helianthus annuus L.	Sunflower	Do	2, 3, 7

Table 1.1. (continued)

Species	Common name	Center of Origin (O), Domestication (Do), Diversification (Di)	References
Hylocereus undatus (Haw.) Britton & Rose	Pitahaya, dragon fruit	Do	2, 3, 7
Ipomoea batatas (L.) Lam.	Sweet potato	Do	2, 3, 7
Lophophora williamsii (Lem. ex Salm-Dyck) J.M. Coult.	Peyote	Do	2
Solanum lycopersicum var. *lycopersicum*	Tomato	Do	2, 3, 7
Manihot esculenta Crantz	Cassava, yuca	Do	2, 3
Nicotiana tabacum L.	Tobacco	Do	2
Opuntia spp.	Nopal	Do	2, 3, 7
Pachyrhizus erosus (L.) Urb.	Jícama, yam bean	Do	2, 3, 7
Persea americana Mill.	Avocado	Do	2, 3, 7
Physalis philadelphica Lam.	Husk tomato	Do	2, 3, 7
Pouteria sapota (Jacq.) H.E. Moore & Stearn	Mamey sapote	Do	2, 3, 7
Psidium guajava L.	Guava	Do	2, 3
Salvia hispanica L.	Chia	Do	2, 3, 7
Spondias mombin L.	Java plum	Do	2, 3
Tagetes erecta L.	Marigold	Do	2, 3, 7
Theobroma spp.	Cacao, pataxtle	Do	2, 3, 7
Acacia spp.		Di	6, 7
Bursera spp.		Di	6, 7
Euphorbia spp.		Di	6, 7
Ipomoea spp.		Di	6, 7
Mammillaria spp.		Di	6, 7
Mimosa spp.		Di	6, 7
Pinus spp.		Di	6, 7
Salvia spp.		Di	6, 7
Solanum spp.		Di	6, 7
Plus other 70 genera		Di	7

References: 1. Becerra (2000); 2. Challenger (1998); 3. Hernández-Xolocotzi (1998); 4. Lira-Saade *et al*. (1995); 5. Parra y Ortiz de Bertorelli (1988); 6. Rzedowski (1998); 7. Rzedowski (2005); 8. Vavilov (1951); 9. Wellhausen *et al*. (1987); 10. Zohary (1970). (Reproduced from: Acevedo *et al*., 2009).

Many other plant species were introduced and adapted to the Mexican agroecosystems, increasing the genetic diversity and crop production (Molina and Córdova, 2006). Figure 1.6 shows the crops with the highest economic values for the last 10 years (2007–2016) in Mexico, including both native and introduced crops (SIAP, 2017). The economic importance of maize in the country is by far the highest, followed by sugar cane, sorghum, avocado, chili pepper, tomato, alfalfa, wheat, common bean, potato, etc. (Figure 1.6.). Maize is also the basis of the food supply for the Mexican population. As it can be seen on Figure 1.7, maize is the main source of energy supply. Other sources of energy are sugar cane, wheat, soybean, common bean, rice, palm oil and barley. In the case of fat, it is supply mainly by soybean, maize, palm and rape-seed oils (Figure 1.8), while maize, wheat and common bean are the main sources of protein (Figure 1.9).

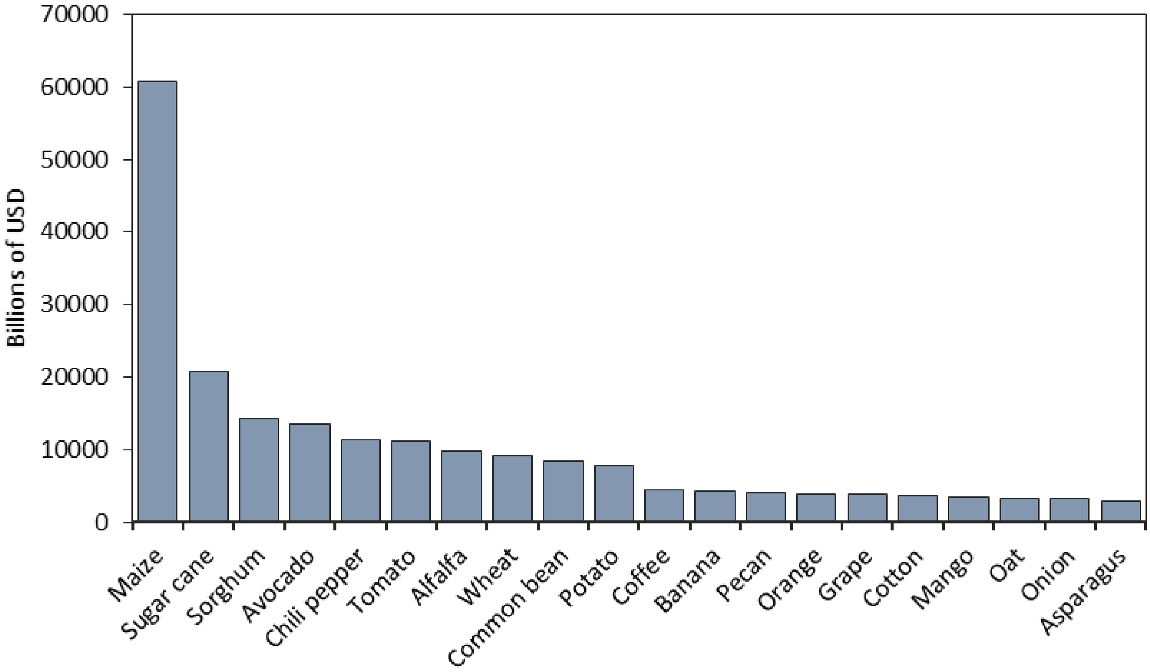

Figure 1.6. Crops with the highest accumulated economic values in Mexico from 2007 to 2016 (Source of data: SIAP, 2017).

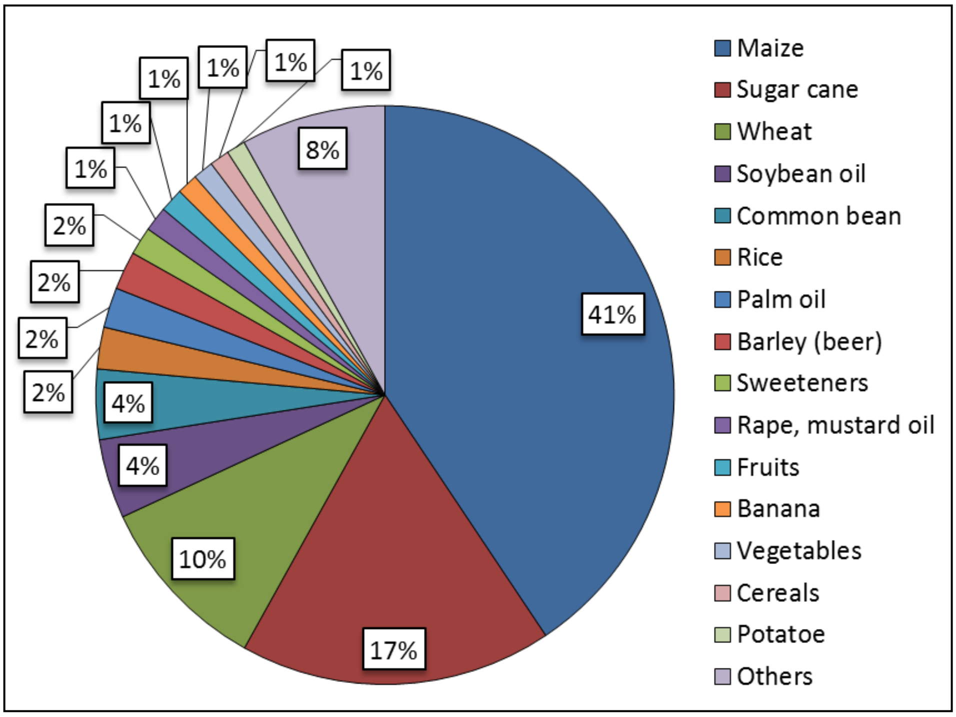

Figure 1.7. Energy supply from the main crops in Mexico based on a diet of 2460 Kcal per capita per day only from vegetal sources, 80% of the total energy (Source of data: FAO, 2014).

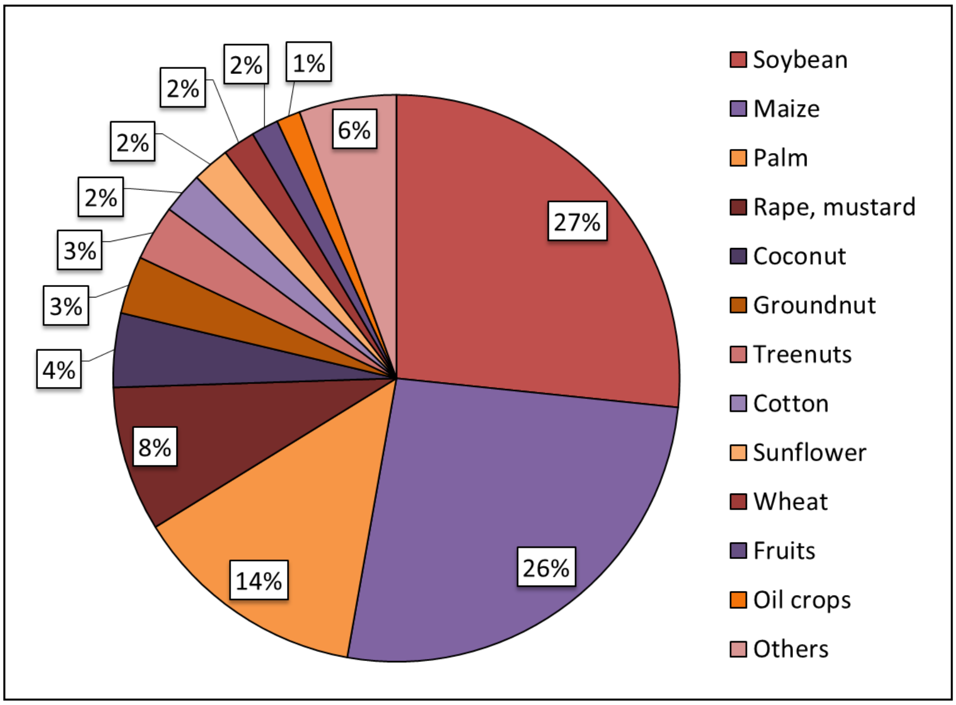

Figure 1.8. Fat supply from the main crops in Mexico based on a consumption of 89.85g per capita per day only from vegetal sources, 52% of the total fat (Source of data: FAO, 2014).

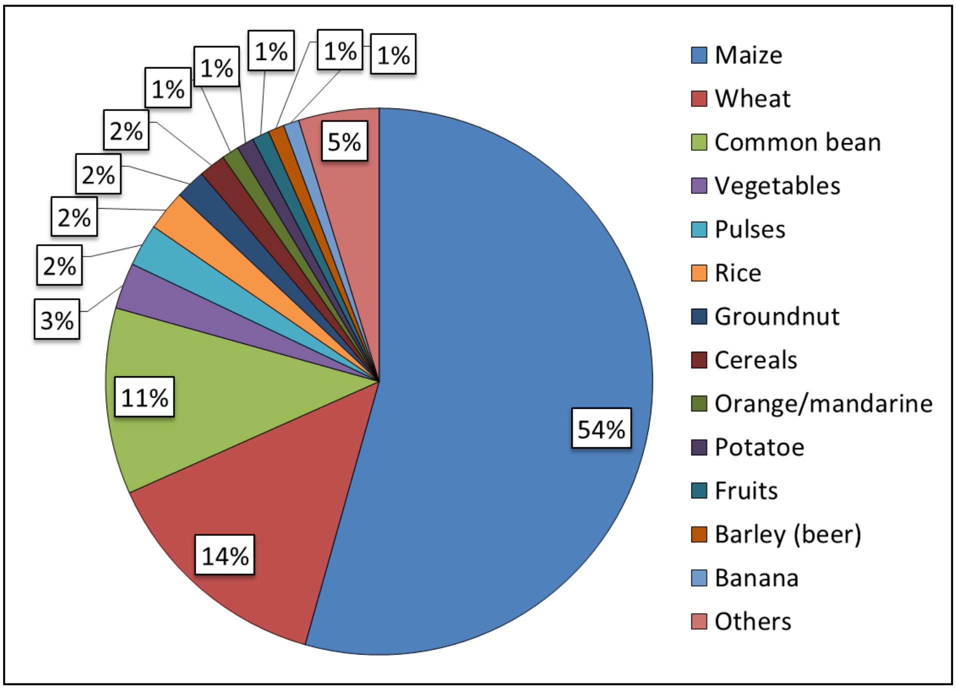

Figure 1.9. Protein supply from the main crops in Mexico based on a consumption of 87.23g per capita per day only from vegetal sources, 55% of the total protein (Source of data: FAO, 2014).

1.1.4 Threats to Agrobiodiversity

It is likely that human activities are the principal factor in climate change, having a direct influence on the atmosphere and ocean temperature changes and global water cycle (Bindoff *et al.*, 2013). A series of observations and indicators have been analyzed to measure the changes in the climate system (IPCC, 2014). Land and ocean temperature increased by 0.85°C since 1880 to 2012 (IPCC, 2014). Greenhouse gas concentrations have also been increasing by 40% for carbon dioxide (CO_2), 150% for methane (CH_4), and 20% for nitrous oxide (N_2O) from the pre-industrial period (IPCC, 2014). While the emissions of CO_2 from forestry and other land use have increased in 40% from 1970 to 2011, those from fossil fuel combustion, cement production and flaring, have increased in about 300% (IPCC, 2014). The future projections are neither optimistic. An estimated increase of 0.3°C to 1.7°C under low emissions scenario (RCP2.6) by the end of this century, and up to 4.8°C under high emissions scenario RCP8.5 (IPCC, 2014). In Mexico, the greenhouse emissions have increased by about 33% from 1990 to 2010 (INE, 2010) (Figure 1.10), and the projections indicate an increase of 1.35 fold toward 2050 (INECC, 2012) (Figure 1.11).

Some of the impacts of these changes in climate conditions include a) changes in precipitations and snow and ice melting, affecting the hydrological systems; b) changes in terrestrial and marine ecosystems affecting, among other, the geographical range and behaviour of wild life (Jarvis *el al.*, 2010; IPCC, 2014). The increasing land surface temperature, changing rainfall patterns, desertification, and increasing likelihood of occurrence of extreme events will have a direct impact on agriculture (Jarvis *el al.*, 2010; IPCC, 2014). These impacts may be reflected in changes of the growing environment and geographical occurrence and prevalence of pest and diseases, ultimately leading to declining crop productivity (Jarvis *el al.*, 2010).

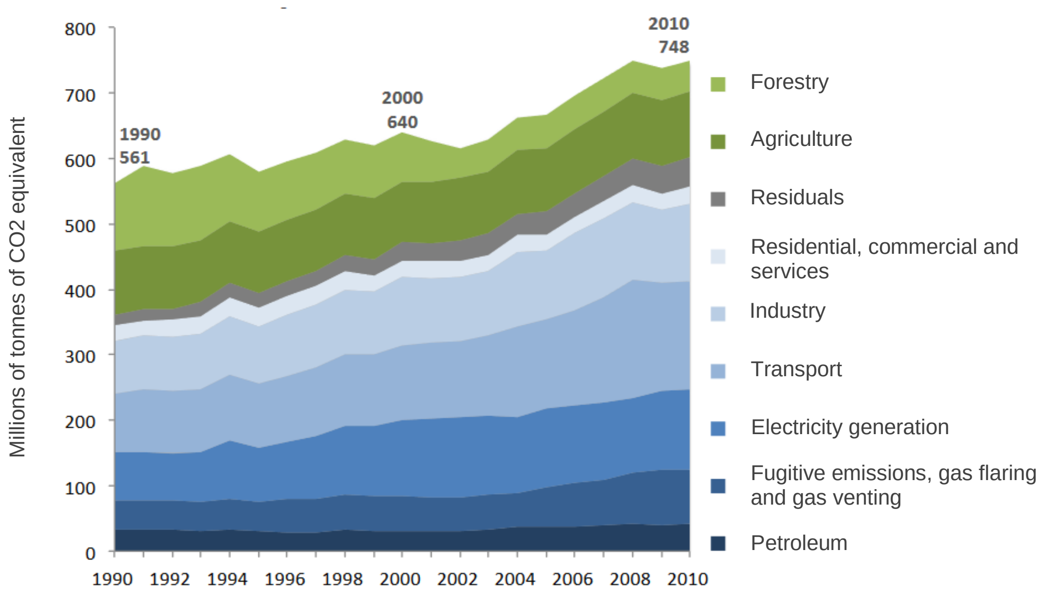

Figure 1.10. Greenhouse emissions (CO_2e) in Mexico by economic sector from 1990 to 2010 (Reproduced from: INE, 2010).

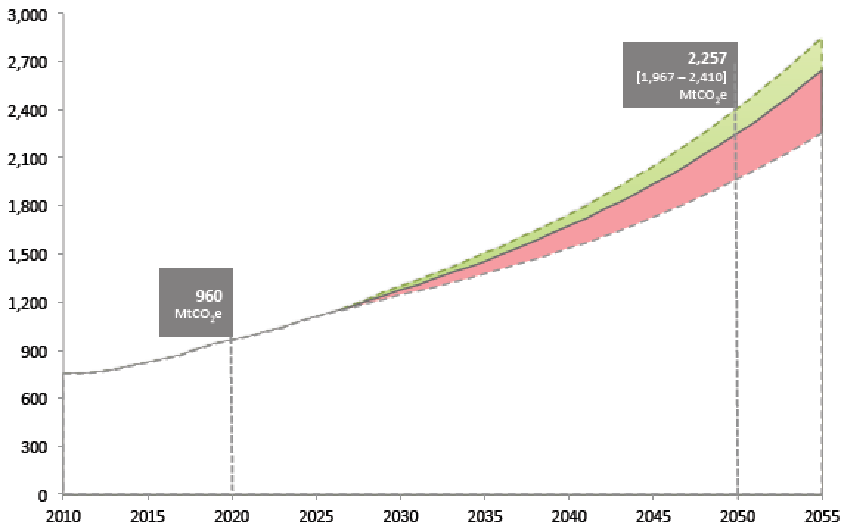

Figure 1.11. Projection of total greenhouse emissions in Mexico from 1990 to 2010. $MtCO_2e$: millions of tonnes of CO_2 equivalent (Reproduced from: INECC, 2012).

The location of Mexico in the Tropic of Cancer has helped the country to develop a vast range of ecosystems but it also may represent a risk to biodiversity. The country is frequently affected by a number of Tropical cyclones every year that come from both the Pacific Ocean and Atlantic Ocean, many of them develop in hurricanes, and the frequency of strongest storms is more likely to occur (Christensen *et al*., 2013). This risk places the country at a high vulnerability facing these natural events (Gay y Garcia *et al*., 2015). Some of these cyclones have affected the agriculture production and the ecosystems. For example, Pauline reached category 4 in 1997 leaving more than 122 thousand of cultivated hectares completely lost, along with more than 80,000 of forests and rain forests (SEGOB, 1997). In 2015, the hydrometeorological events damaged more than 42,500 cultivated hectares, with economic losses of more than Mex$ 17,000 million (García Arróliga *et al*., 2016). The frequency of tropical cyclones in the North Pacific is likely to remain the same over the period from 2081 to 2100; however, the frequency of category 4 and 5 cyclones is likely to increase by 50% on average and up to 200% in the North Atlantic (IPCC, 2014).

About 46%–64% of the soils present a certain level of degradation due to human activities. Chemical degradation as a result of industrial or agriculture activities is the main cause of fertility loss, acidification, salinity, contamination and alkalinization of 16.3% of the soils. Physical degradation, hydric degradation and eolic degradation are affecting 40.2% of the soils (SEMARNAT and Colegio de Postgraduados, 2002; CONAFOR, 2013; SEMARNAT, 2010).

Along with climate change effects, the loss of habitat due to land use change, overpopulation, pollution, and overexploitation of natural resources, soil degradation, among others, are factors contributing to genetic erosion and reduction of the biodiversity in Mexico (Challenger *et al*., 2009).

1.1.5 Agrobiodiversity Conservation

Due to this wealth of diversity, and the threats associated, the Mexican Strategy for Plant Conservation (MSPC) 2012-2030 (CONABIO, 2012), derived from the Convention on Biological Diversity (CBD, 1992), recognized the need for a better understanding of plant diversity of Mexico, which would assist us in defining effective systems for the preservation and sustainable utilization of these plant genetic resources. Some of the aims of the MSPC are a) documentation of the vulnerability and adaptation of crops and wild species that may be at major risk due to climate change (Aim 4), b) implementation of programs for integrated management of crops, landraces and wild relatives (Aim 12), and c) increasing the *in situ* and *ex situ* conservation of crops and wild relatives (Aims 12 and 16). According to Target 9 of the Global Strategy for Plant Conservation (GSPC) (CBD, 2010a), a program of the CBD, the preservation of 70% of crops, wild relative diversity and other plant species of socio-economic value should be reached by 2020, and by the same year, the state of the genetic diversity will be improved and conservation strategies for crop and livestock and their wild relatives should be developed in order to reduce the genetic erosion and conserve the genetic diversity, according to the Aichi Biodiversity Target 13 (CBD, 2010b).

There are two major conservation strategies of genetic resources: *in situ* and *ex situ*; the first implies conservation of the organisms of interest in their natural environments, or in the case of domesticated or cultivated species, the environment where their distinctive traits were developed; the second refers to the preservation of the germplasm outside of their natural environment (CBD, 1992). There are multiple techniques for each conservation strategy, but two of the most significant, with respect to crops, are field cultivation of local varieties by farmers (on farm conservation) and preservation of seed or clonal material in germplasm banks, respectively (Iriondo, 2001). In the case of CWR, the genetic reserves play an important role for *in situ* conservation (Maxted *et al.*, 1997a). In Mexico there are 182 Natural Protected Areas (PA), conserving 90.8 millions of hectares among Biosphere Reserves, National Parks, National Monuments, Protected Areas of Natural Resources, Protected Areas of Flora and Fauna and Sanctuaries (www.conanp.gob.mx), so there is a potential for CWR *in situ* conservation. The conservation of *Zea diploperennis* Iltis, Doebley & R. Guzman in the Biosphere Reserve Sierra de Manantlán, Jalisco, is a good example of active *in situ* conservation of CWR in Mexico.

Ex situ conservation, on the other hand, involves a series of processes including field collection of sample material and long term storage, preserving a representative portion of the genetic diversity (Iriondo, 2001). Collection and storage methods vary depending on the particular characteristics of the plant species: seed samples are the most common form of preservation, but tissue, organs and parts of the plants are often stored for some species, as well as whole living plants. This strategy is particularly convenient for conservation of large number of species or populations within relatively limited space (Pita Villamil and Martinez La-Borde, 2001). Nevertheless, *ex situ* conservation is a highly technical and economically demanding strategy, due to the requirement of an adequate storage space with continuous controlled environmental conditions, to minimize the risk of loss of genetic diversity during regeneration, storage and other processes (Maxted and Kell, 2008; 2009).

There are several national and international institutes, including germplasm banks, universities and botanical gardens that host a wide number of Mexican crops and their wild relatives, and most of them are incorporated into the World Biodiversity Information Network (REMIB). The REMIB is an information system of taxonomic, curatorial, ecological, geographical, utilization and biological databases that are available online (http://www.conabio.gob.mx/remib/doctos/remib_esp.html). The REMIB includes data from germplasm banks such as the National Plant Germplasm Bank (BANGEV) located at the Autonomous University of Chapingo that maintains *ex situ* and *in situ* collections (http://web.chapingo.mx/). The recently established National Genetic Resources Center (CNRG) of the National Forest, Crop and Livestock Research Institute (INFAP) was designed for the long-term conservation of national and globally important genetic resources to guarantee current and future food security, through the implementation of state-of-the-art technologies to preserve germplasm collections and make them available to develop sustainable production systems (http://www.inifap.gob.mx/SitePages/centros/cnrg.aspx).

In case of maize, the Global Project of Native Maize (CONABIO, 2011, http://www.biodiversidad.gob.mx/genes/proyectoMaices.html) has made available online more than 24,000 records of native maize, teosinte (619) and *Tripsacum* (782), based on historic and recent collections (2007–2011). This collection was made with input from BANGEV, CIMMYT, INFAP, IMAREFI (Institute of Plant Genetic Resources

Management), UAAAN (Antonio Narro Agrarian Autonomous University), among others. Additionally, there is a significant collection of native crops and wild relatives held by the U.S. National Plant Germplasm System, such as tobacco, potato, bean, cotton, peanut, pepper, avocado, cacao, papaya, cucumber, tomato, and sunflower (USDA–ARS–GRIN, 2017, http://www.ars-grin.gov/) and a significant collection of *Phaseolus* spp. in the International Center for Tropical Agriculture (CIAT, https://ciat.org.uk/).

1.2 FOOD SECURITY

According to the definition of FAO, food security is reached when "there is physical and economical access to nutritious and safe food and sufficient quantity to every person in order to maintain a healthy and active life" (FAO, 2001). At global level, food insecurity has been decreasing to a 10.8% of malnutrition prevalence in 2015 (FAO, 2016), still about one out of nine people who have insufficient food consumption to keep a healthy and active life, and there is a 16.6% of child undernourished prevalence in developing countries (FAO, FIDA and PMA, 2015).

In Mexico, the population that suffers hunger has reach less than 5% (FAO, FIDA and PMA, 2015). However, there is a marked prevalence of food insecurity in Mexico according to the Mexican National Institute of Public Health (Gutierrez *et al*., 2012). It is estimated that 70% of the Mexican population is under some level of food insecurity (Figure 1.12). The 66.8 and 80% of rural and urban families respectively are under some level of food insecurity, reducing the quality and quantity of food required to maintain every family member. Urban and rural population under low food insecurity are estimated to be of about 40% and 45% correspondingly, which reflects that family members have to limit the quality of the food they consume in order to have enough quantity for every family member. The percentages of the urban and rural population under moderate food insecurity are 16.5 and 22.4 respectively, meaning that the family has to restrict the quality as well as quantity of food. In the case of severe food insecurity, there is lack of food during the day (Gutierrez *et al*., 2012). In the case of child undernourishment, there is a 13.6% of child stunting (Gutierrez *et al*., 2012; UNICEF, 2014)

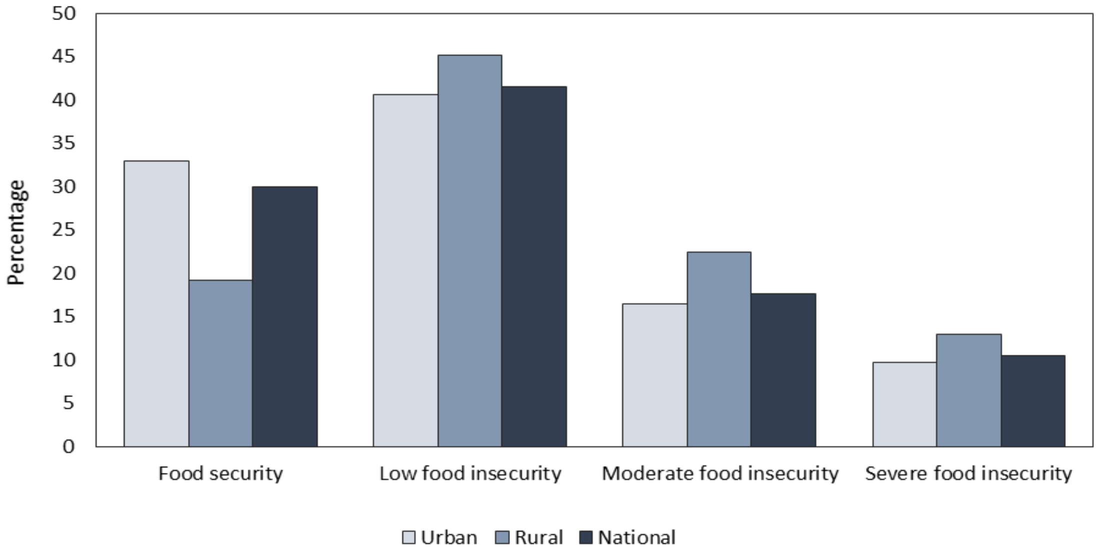

Figure 1.12. Prevalence of national food insecurity in urban and rural areas (Adapted from: Gutierrez *et al.*, 2012).

There is also an increasing tendency of human population over the coming years (Figure 1.13). The annual growing rate is estimated to be reduced by 2050 from 1.18 to 0.5 in the world and from 1.4 to 0.5 in Mexico; however, the human population by 2050 will reach 164 million in Mexico (UN, 2017). There will be in consequence a greater demand for land, services and products to satisfy the needs of this population. To satisfy the food demand of the increasing human population in 2050, the food production should be increased in 70% at global level and between 77–100% in developing countries (FAO, 2011; Alexandratos and Bruinsma, 2012). About 73% of the crop production by 2050 would come from yield increases, 21% from arable land expansions and 6% from increases in cropping intensity (Alexandratos and Bruinsma, 2012). However, the changes in crop yields, due to climate change, may impact negatively the production element of food security (Figure 1.14) (IPCC, 2014). Mexico is amongst the countries with the highest conflict risk between food security and biodiversity (Molotoks *et al*., 2017). According to Molotoks *et al*. (2017), here low food security and high biodiversity simultaneously occur, but are most at risk of biodiversity being exploited to meet food demands.

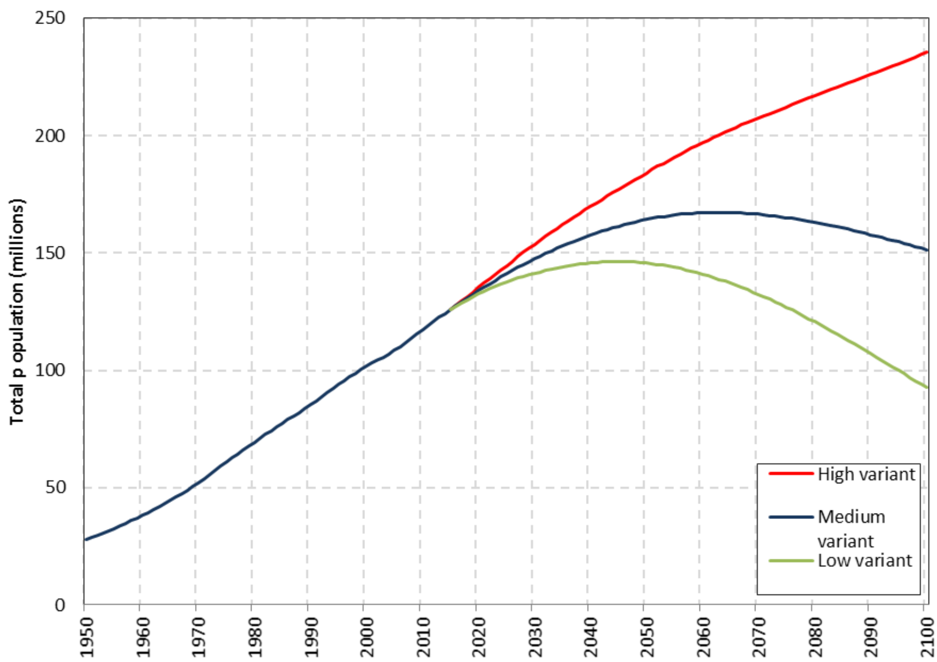

Figure 1.13. Historic and projected human population growth from 1950 to 2100 in Mexico (Source of data: UN, 2017).

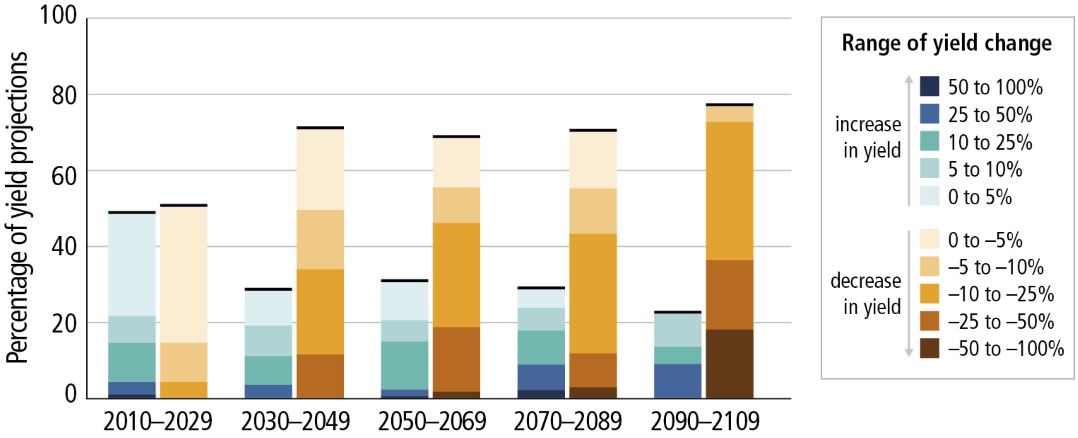

Figure 1.14. Projected changes in crop yields (mostly wheat, maize, rice and soy) due to climate change over the 21st century, relative to late 20th century levels (Reproduced from: IPCC, 2014).

1.3 CROP WILD RELATIVES

1.3.1 Definition

A crop wild relative (CWR) is, in a broad term, any species with a close genetic relationship to a crop, allowing natural or artificial crossing with it (Maxted *et al*., 2006). To define the relationship level, two concepts were developed. The "Gene Pool" concept was formulated, based on this relatedness, by Harlan and de Wet (1971), establishing the potential utilization of genetic diversity contained in each Gene Pool (Figure 1.15). They established three Gene Pools levels, according to the breeding success between the crops and their wild relatives. These include the Primary Gene Pool (GP 1), in which natural crosses are most likely to succeed between the crop and the wild relative; the Secondary Gene Pool (GP 2), in which natural breeding is more difficult, due to the increased genetic distance to the crop; and the Tertiary Gene Pool (GP 3), in which some form of technology is required for effective breeding. In order to prioritize within and across these Gene Pools, particularly for those taxa with limited genetic information available and assuming that taxonomic distance is correlated with genetic distance, it may be possible to apply the Taxon Group concept (Maxted *et al*., 2006). Taxa are partitioned into six groups: Taxon Group 1a (crop), Taxon Group 1b (same species), Taxon Group 2 (same series or section), Taxon Group 3 (same subgenus), Taxon Group 4 (same genus) and Taxon Group 5 (same tribe but different genus) (Figure 1.15). This concept is mainly useful when working with a large number of species as 100% of the crops and their wild relatives can be prioritized, differing to the 22% that can be prioritized using the Gene Pool concept. Taking into account these two concepts, Maxted *et al*. (2006) defined a crop wild relative as "*a wild plant taxon that has an indirect use derived from its relatively close genetic relationship to a crop; this relationship is defined in terms of the CWR belonging to Gene Pools 1 or 2, or Taxon Groups 1 to 4 of the crop"*, or in general terms, any species from the same genus as a crop (Maxted *et al*., 2006).

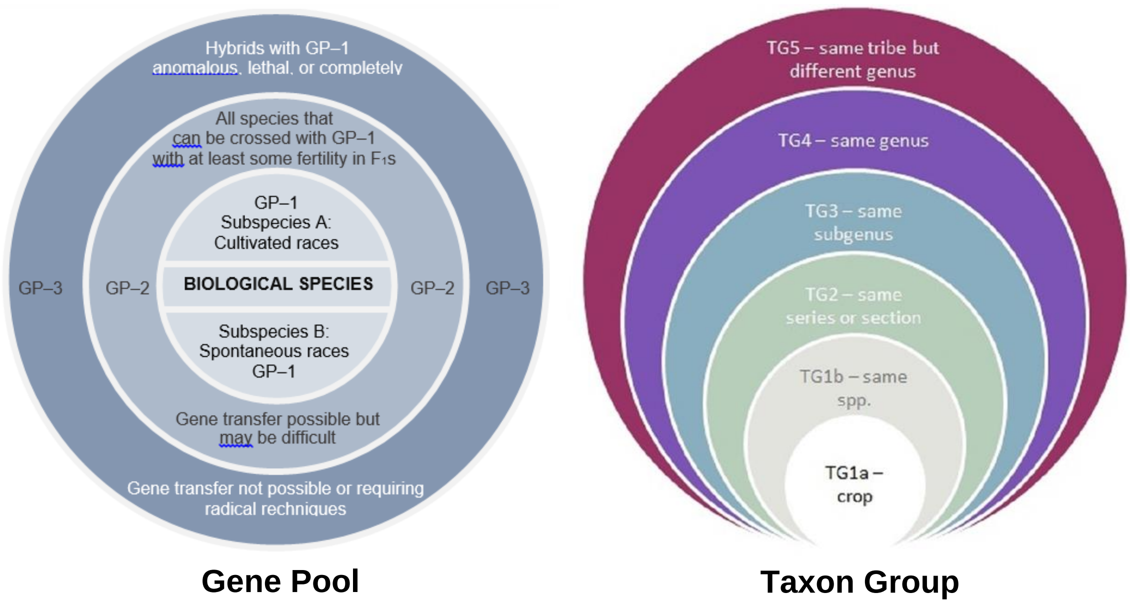

Figure 1.15. Gene Pool Concept according to Harlan and de Wet (1971), showing the Primary Gene Pool (GP1), Secondary Gene Pool (GP2) and Tertiary Gene Pool (GP3). Taxon Group Concept according to Maxted *et al*. (2006), where Taxon Group 1a (TG1a): crop, Taxon Group 1b (TG1b): same species, Taxon Group 2 (TG2): same section or series, Taxon Group 3 (TG3): same subgenus and Taxon Group 4 (TG4): same genus.

Prioritization of taxa for conservation purposes will be according to the group to which they belong; being those considered in GP1b/TG1b and TG2 of higher priority, meanwhile those included in GP2/TG3 and TG4 will be of lower priority (Maxted *et al*., 2006). These priority taxa may be of special interest when including CWR in breeding programs, as they have been used as sources of variation for crop improvement, for example for pest and disease resistance, increasing of yield and quality, fertility, tolerance to abiotic stresses, etc. (Maxted and Kell, 2009), due to they are expected to have more genetic variation than crops (Vollbrecht and Sigmon, 2005).

1.3.2 Value and utilization of CWR

CWR are a potential natural source for food and agriculture along with breeding lines, landraces, cultivar, traditional varieties etc. (Ford-Lloyd *et al.*, 2011). These genetic resources can be used as gene donors of crops, facing future needs of genetic improvement and food security. They have been particularity useful for resistance or tolerance to plant pests and diseases, increase productivity as well as for gaining adaptability to climate change factors (Ford-Lloyd *et al.*, 2011). A number of CWR (183) have been used in breeding programs of 29 major crops, mostly in wheat , 80% related to pest or disease resistance (Maxted and Kell, 2009). Some successful examples include *Aegilops* species, wild relatives of common wheat. *A. variabilis* Eig (synonym of *A. peregrina* (Hack.) Maire & Weiller var. *peregrine*) was crossed with *Triticum aestivum* cv. 'Rusalka' in order to gain resistance to powdery mildew (Spetsov *et al*., 1997). Another example are the varieties developed from crosses between *Oryza meridionalis* N. Q. Ng and *O. sativa* L. that were also evaluated for heat and drought tolerance (Sanchez *et al*., 2014). The success of a national food security strategy depends on one hand on this genetic diversity to be available in the short and long term. In Mexico, maize

(*Zea mays* L.) is the main commodity of agriculture. It represents about 22% of the total crop production in the country (data from SIAP, 2017). Maize productivity has increased slightly in the past 10 years, with yields of 3.16 Ton/ha, however it is below the global average by about 40% (SIAP, 2017; FAO, 2017). With the use of teosinte, certain properties may be used as it possesses twice the protein content of the maize races and lines (Flint-García *et al*., 2009). Progress has being made in transferring *Tripsacum* spp. genes into maize lines as a source of insect, drought and acid soil tolerance according to the bioassays and pilot tests of Eubanks (2002; 2006). Other studies have assessed the resistance of teosinte and *Tripsacum* spp. to the parasitic weed *Striga hermonthica* (Delile) Benth. and suggest that some level of resistance might be inherited to maize (Gurney *et al.*, 2003; Amusan *et al*., 2008; Rich and Ejeta, 2008). *Z. mays* L. subsp. *mexicana* (Schrad.) H. H. Iltis has been previously identified as potential gene donor for yield improvement in maize (Cohen and Galinat, 1984; Wang *et al.*, 2008), quality traits (Pasztor and Borsos, 1990; Wang *et al.*, 2008; 2014), disease and pest resistance (Ramirez, 1997; Pasztor and Borsos, 1990) and drought tolerance (Lu *et al.*, 2017).

There are several estimations on the economic value of CWR. Individually, a value of US$ 267–384 million per year was estimated for the use of sunflower wild relatives, US$ 250 million using one wild tomato species and US$ 100 million using three wild peanut species (Hunter and Heywood, 2011). At general level, Pimentel *et al*. (1997) estimated a gain of US$ 115 billion per year for the use of CWR. More recently, the value of wild relatives of potato, rice, wheat and cassava has been estimated in US$ 25–73 billion per year toward 2050 (PwC, 2013). The value of US$ 120 billion is estimated for the 26 priority crops of the Millennium Seed Bank, and this value is increased up to US$ 196 billion per year towards 2050 for the 26 priority crops, maize, soy and sugar cane (PwC, 2013).

1.3.3 Conservation of CWR

Regarding CWR conservation, natural reserves may provide the "location, management and monitoring of genetic diversity in natural wild populations within defined areas designated for active, long-term conservation" (Maxted *et al*., 1997a, b). Preserving the natural or semi-natural area of occurrence of a CWR will lead to the conservation of a broad number of associated taxa and their interactions, preserving a wider portion of the diversity within and across the gene pool; additionally, potential pest or disease resistance and the continuing adaptation to climate change are not interrupted. Despite these benefits of *in situ* conservation, change in land use, natural disasters or loss of farmer's interest or convenience, are potential threats that may affect the full achievement of the CWR conservation strategy (Maxted and Kell, 2008). Preservation of CWR genetic resources using complementary *in situ* and *ex situ* approaches will ensure CWR conservation and decrease the risk of losing valuable germplasm (Maxted and Kell, 2008).

Important contributions have been recently applied to determine the state of conservation of crops and CWR, and to identify potential sites for *in situ* and *ex situ* conservation in Mesoamerica, comprising Mexico and Central America (Bioversity International, 2014). However, this work focused on a small proportion of wild relatives of *Manihot* Mill., *Ipomoea* L., *Persea* Mill., *Phaseolus* L., *Cucurbita* L., *Zea* L., *Tripsacum* L. (native forage), *Amaranthus* L., *Capsicum* L. and *Carica* L. Even though this study identifies "hot spots" for CWR diversity in Mesoamerica for these crop gene pools, there is a lack of information from local germplasm banks, as the information presented was gathered principally from centers in the CGIAR system, such as the International Maize and Wheat Improvement Center (CIMMYT), International Center for Tropical Agriculture (CIAT) and the International Potato Center (CIP), and from the Global Biodiversity Information Facility (GBIF), so the actual conservation status of Mexican CWR may not be fully represented.

1.4 NATIONAL CWR CONSERVATION STRATEGIES

CWR conservation is relatively limited. A low percentage of *ex situ* collections (2−6%) are CWR, and most of them are not under proper management for *in situ* conservation in protected areas (Maxted and Kell, 2009). In order to define the basis for the conservation of CWR at different scales (*e.g.* global, regional, national or local), action plans must be defined in a coordinated and systematic effort according to established objectives. A national CWR conservation strategy can be defined as a series of coordinated, systematized and integrated actions for the *in situ* and *ex situ* conservation of CWR (Figure 1.16). The main objective is the active long term conservation and utilization of the genetic and taxonomic diversity of CWR (Magos Brehm *et al.*, 2017).

A national CWR conservation strategy evaluates the current preservation status of CWR as well as proposes future actions for the conservation of these genetic resources, with input from the different levels of conservation contributors and political authorities. All the information, analysis and results are gathered together in a document as support for agencies and governments to review the human and economic resources required to implement and maintain the conservation actions (Magos Brehm *et al.*, 2017). Typically, a national CWR conservation strategy will involve a) the creation of a national CWR checklist and an inventory of the priority CWR taxa that are present within a particular country, b) ecogeographic characterization of priority CWR taxa, c) a genetic diversity study of these taxa, d) the identification of threats for the priority CWR diversity, e) a gap analysis identifying key sites for *in situ* and *ex situ* conservation, f) the establishment of conservation objectives and actions and g) implementation, monitoring and promotion of CWR conservation actions and utilization (Magos Brehm *et al.*, 2017).

The creation of a national CWR inventory of the priority CWR taxa is the baseline of the national strategy, providing of the information on the relevant taxonomic diversity and other information associated to the conservation and current/potential utilization of CWR (Magos Brehm *et al.*, 2017). The main stages for the preparation of a national CWR inventory are: 1) delimitation of the geographical extent (national), 2) produce a list of national crop species (if not already available), 3) produce a list of national flora (if not already available), 4) match the crop genera with the list of national flora to produce a CWR checklist, 5) prioritize the CWR checklist and 6) produce the inventory. The prioritization of the CWR checklist can be done using different criteria: economic value of the related crop, potential as a gene donor (closely related to the crop), status of occurrence (native or introduced CWR), threat status, conservation status, legislation, geographical distribution, genetic diversity, social considerations, other relevant criteria (Magos Brehm *et al.*, 2010; Magos Brehm *et al.*, 2017).

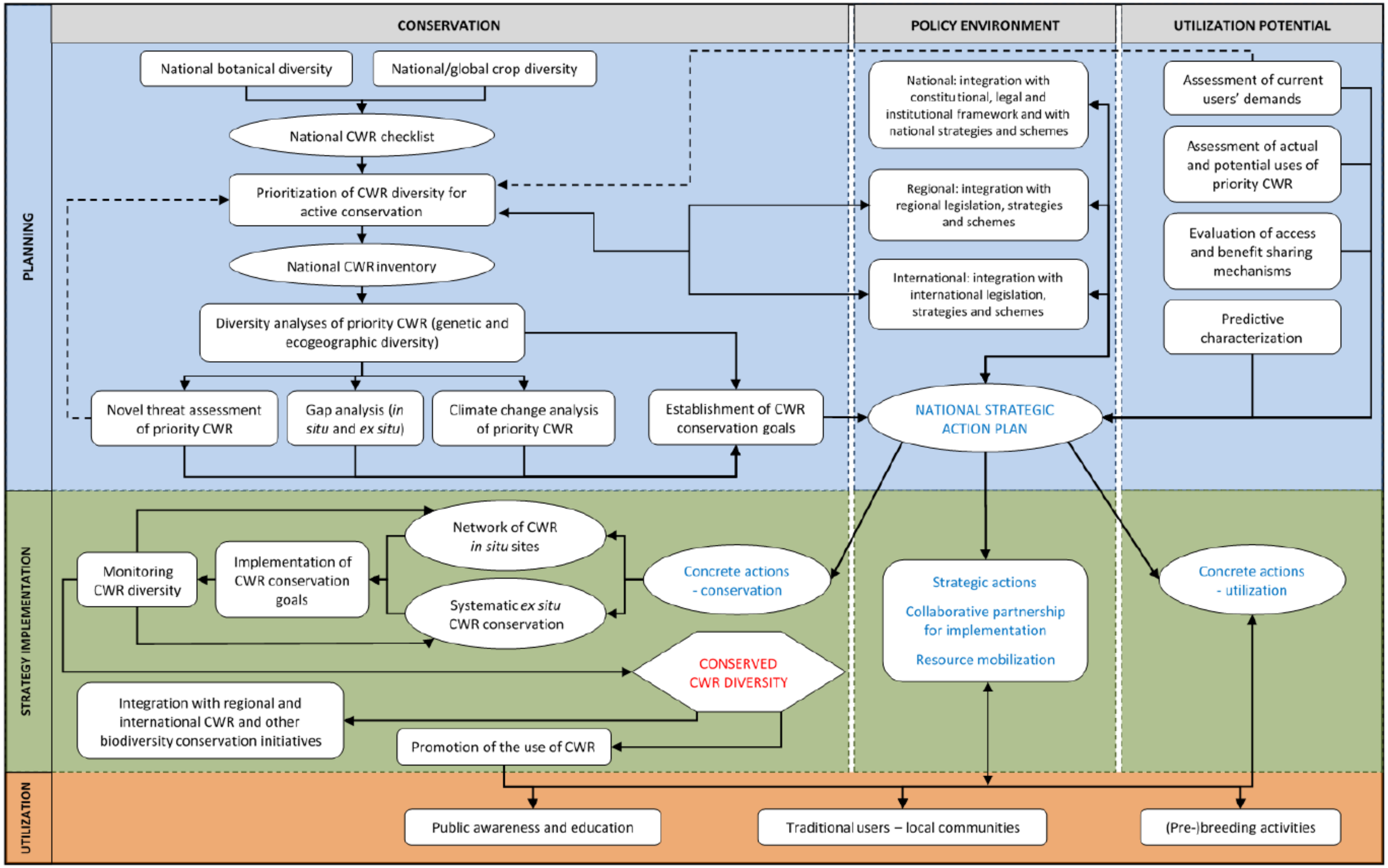

Figure 1.16. Model for the development of a National Strategic Action Plan for the conservation and sustainable use of CWR (Reproduced from: Magos Brehm *et al*., 2017).

The ecogeographic analysis is a “process of gathering and synthesizing ecological, geographical, taxonomic and genetic diversity information. The results are predictive and can be used to assist in the formulation of complementary *in situ* and *ex situ* and conservation priorities” (Maxted *et al.*, 1995; Castañeda-Álvarez *et al*., 2011). The main elements for the ecogeographic analysis are: a) identification of taxon expertise, b) selection of target taxon/taxonomy, c) delimitation of the target area, d) ecogeographic database, e) collation of ecogeographic data and f) data analysis, verification and synthesis (Magos Brehm *et al.*, 2017).

The gap analysis is a widespread technique for the identification of key sites for *in situ* conservation and germplasm collections required for *ex situ* conservation. It can be performed at different levels: individual CWR taxon, ecogeographic, trait or genetic diversity. The ecogeographic diversity information can be used as a proxy when genetic information is not available (Maxted *et al*., 1995; 2008a; Parra-Quijano *et al*., 2008, 2012a; Magos Brehm *et al.*, 2017).

It is necessary to establish the conservation objectives of the strategy, based on the conservation gaps, preliminary selection of *in situ* conservation sites for individual or multi-taxa, and additional threat information and complementarity analysis for a provisional site selection. Finally, the formulation and implementation of *in situ* and *ex situ* management plans for the active CWR conservation are settled. These may include monitoring of CWR in conservation sites and ensure the genetic representativeness of CWR in *ex situ* collections (Magos Brehm *et al.*, 2017).

The last stage of the national CWR conservation model is the practical utilization of these genetic resources. There are many techniques to facilitate the utilization of CWR for traditional utilization or breeding programs, including different actors (researchers, farmers, breeders, general public, etc.) (Magos Brehm *et al.*, 2017). The utilization of CWR in breeding programs, however, is often associated to characterization and evaluation information, which is not always available (FAO, 2010). Other molecular techniques are also useful tools to facilitate the identification of potential traits (QTL mapping, SNPs discovery, GWAS, Sequencing, among others), but then again technical and economic resources are often limiting. Predictive characterization is a cost-effective method to optimize the identification of populations that are likely to present adaptive traits (Mackay and Street, 2004, Thormann *et al.,* 2014; Street *et al*., 2016).

1.5 AIM THE RESEARCH AND OBJECTIVES

The aim of this research it to analyze the diversity of the most important and representative crops and their wild relatives in Mexico as a basis for the creation and implementation of a national strategy for the systematic conservation and sustainable utilization of these genetic resources.

To achieve this, the following objectives were defined:

a) To produce a national inventory of Mexican CWR genetic resources based on the overall biological and socio-economic information, and establish priorities for conservation.

b) To perform a gap analysis in order to find distribution patterns of diversity at intra and inter taxon levels and its ecological and geographical context, and identify potential sites for *in situ* and *ex situ* conservation.

c) To analyze the impact of climate change on priority Mexican CWR to establish conservation needs under future climate scenarios.

d) To undertake a threat assessment of priority Mexican CWR as an element for the definition of conservation priorities.

e) To conduct a predictive characterization analysis as a tool of selection of potential CWR germplasm for future genetic improvement of target crops, based on ecological and geographic information.

CHAPTER 2

A CROP WILD RELATIVE INVENTORY FOR MEXICO

The work presented in this chapter has been accepted for publication in Crop Science

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2.1 ABSTRACT

Crop Wild Relatives (CWR) are valuable sources of variation for the genetic improvement of crops. Mexico is an important center of diversity of crops and CWR. However, this diversity is threatened by the impacts of climate change, habitat degradation, increasing human population, among other factors. Given the large number of CWR, the creation of a CWR inventory is the starting point for the development of a national CWR conservation strategy. The process for the preparation of a national CWR inventory for Mexico consisted of: a) producing of a list of national crop species, b) match the crop genera with the list of national flora to produce a CWR checklist and c) prioritize the CWR checklist according to a series of selection criteria and using a ranking system. The selection criteria included the economic value of the related crop, potential for crop improvement, food intake, threat status, geographical distribution and crop use. Applying these criteria, 310 prioritized CWR taxa were selected, about 2% of the national CWR diversity, integrating the national CWR inventory. They are mostly related to food crops of national but also global importance, such as maize (*Zea mays* L.), common bean (*Phaseolus vulgaris* L.), chili pepper (*Capsicum annuum* L.), squash (*Cucurbita* spp.), potato (*Solanum tuberosum* L.), cassava (*Manihot esculenta* Crantz) and sweet potato (*Ipomoea batatas* (L.) Lam.). Approximately 31% of the taxa are endemic to Mexico. The inventory will help to develop *in situ* and *ex situ* conservation plans as part of a national CWR conservation strategy.

Keywords: Plant genetic resources, CWR conservation strategy, National CWR inventory

2.2 INTRODUCTION

Climate change will have direct impacts on agriculture (Jarvis *et al.*, 2008; 2010; Wheeler and von Braun, 2013; IPCC, 2014; Rosenzweig *et al.*, 2014), changing the growing environment and geographical occurrence and prevalence of pest and diseases, resulting in reduced crop productivity (Kang *et al.*, 2009; Jarvis *et al.*, 2010; Sankaranarayanan *et al.*, 2010; Luck *et al.*, 2011; Lobell and Gourdji, 2012; Ray *et al.*, 2015; Msowoya *et al.*, 2016; Asaminew *et al.*, 2017). In maize, for example, up to 25% yield loss has been predicted due to climate change by the end of this century in China (Yin *et al.*, 2015) and up to 50% in Iowa, United States of America (Xu *et al.*, 2016). Crop wild relatives (CWR) are a potential source of genetic diversity breadth for crop improvement. Through gene donation to crops, CWR help underpin food security (Maxted *et al.*, 2006; Ford-Lloyd *et al.*, 2011). CWR have been particularly useful for resistance or tolerance to plant pests and diseases, increase productivity as well as for gaining adaptability to climate change conditions (Maxted and Kell, 2009; Ford-Lloyd *et al.*, 2011), as they have significantly broader genetic variation than the crops themselves (Tanksley and McCouch, 1997; Vollbrecht and Sigmon, 2005).

CWR, in the broad sense, are any wild plant with a close genetic relationship to a crop, allowing natural or artificial crossing with it (Maxted *et al.*, 2006). To estimate the degree of relationship, two concepts were developed. The “Gene Pool” concept, proposed by Harlan and de Wet (1971), establishes potential utilization value as a gene donor based on actual breeding success between the crops and their wild relatives. For use where crossing ability is unknown, the “Taxon Group” concept was developed (Maxted *et al.*, 2006). The concept uses taxonomic distance as a proxy for genetic distance, assuming there is a direct relationship between the two factors which permits much wider application for nearly all crop genepools (Maxted *et al.*, 2006).

Mexico holds more than 25,000 plant species (Mittermeier *et al.*, 1997; CONABIO, 2008; Llorente-Bousquets and Ocegueda, 2008). From this diversity, about 40 to 50% are endemic to Mexico (Rzedowski, 1991a, b; Villaseñor, 2004; Sarukhán *et al.*, 2009) and Mexico is also known as a Vavilov center of crop origin, domestication and diversification for globally important crops (Vavilov, 1992). The significance of the Mexican CWR is appreciated at global level, Vincent *et al.* (2013) included in the global "Harlan and de Wet Inventory" 35 genera with global prioritized CWR from Mexico. Maize (*Zea* L.), domesticated more than six thousand years ago (Piperno and Flannery, 2001), and beans (*Phaseolus* L.) with 52 species found in Mexico, out of the 63 known species globally (Delgado-Salinas *et al.*, 1999), are well known examples. However, climate change and loss of habitat due to land use change, overpopulation, pollution, and overexploitation of natural resources, soil degradation, among others, are factors contributing to genetic erosion of biodiversity in Mexico (Challenger *et al.*, 2009). These threats are likely to adversely impact Mexican CWR, and some may even become extinct (Lira *et al.*, 2009; Ureta *et al.*, 2012). Due to the wealth of diversity, and the associated threats, the Mexican Strategy for Plant Conservation (MSPC) 2012–2030 (CONABIO, 2012), recognized the need for a better understanding of the plant diversity of Mexico, its preservation and sustainable utilization, particularly because of their prominence to the genetic diversity of CWR.

Globally there are a large number of CWR−50,000 to 60,000, of these about 10,740 could potentially contribute to future food security (Maxted and Kell, 2009). Yet their *ex situ* and particularly their *in situ* conservation is currently inadequate (Maxted and Kell, 2009). In Mexico, the *ex situ* conservation of CWR is also limited, with their genetic diversity currently underrepresented and undermanaged in the genebanks (Molina and Córdova, 2006; Bellon *et al.*, 2009; Bioversity International, 2014). Moreover, it is estimated that the conservation of wild plant genetic resources in their natural habitats is minimal and they are endangered (Molina and Córdova, 2006; Bellon *et al.*, 2009; Bioversity International, 2014). All CWR have the potential to contribute beneficial traits to their related crop. The sheer numbers of taxa involved means a phased approach to their conservation is often taken as a first step in effective conservation planning. Several checklists of plant diversity have been created for Mexico at different levels. For instance, the checklist of vascular plants of the Mexican flora (Villaseñor, 2004; 2016), the Magnoliophyta and Pinophyta divisions lists (Villaseñor and Ortiz, 2014; Gernandt and Pérez-de la Rosa, 2014), or the Lamiaceae family catalogue (Martínez-Gordillo *et al.*, 2013). The "Flora of the Tehuacán-Cuicatlán Valley" and "Flora of the Bajío and adjacent regions" are examples of checklists at regional level within Mexico (UNAM, 2017; INECOL, 2017). Nevertheless, a prioritized list of wild taxa related to cultivated plants has not been produced for Mexico. Identifying an initial subset of taxa to form the foundation of the first iteration of a national CWR conservation strategy is recommended. Then it can be enhanced as resources and information become available (Magos Brehm *et al*., 2017). A national CWR inventory of CWR taxa provides the information on the relevant taxonomic diversity and other information associated to the conservation and current/potential utilization of CWR (Magos Brehm *et al*., 2017). Typically, the preparation of a national CWR inventory involves a) producing a list of national plant taxa, b) matching this against a list of global crop genera to generate a list of national plant taxa found in the same genera as the national crops, which is a comprehensive CWR checklist and c) prioritizing this CWR checklist to produce a more manageable inventory of CWR taxa with associated data that can form the basis of the first phase of active national CWR conservation (Magos Brehm *et al*., 2017). This approach has been previously implemented for CWR conservation planning at national and global level (*e.g.* Idohou *et al.*, 2012; Fitzgerald *et al.*, 2013; Khoury *et al.* 2013; Taylor *et al.*, 2013; Vincent *et al.*, 2013; Fielder *et al.*, 2015; Kell *et al.*, 2015; Lala *et al.*, 2017). The criteria used to select the first phase may include: economic value of the related crop, potential as a gene donor (closely related to the crop), status of occurrence (native or introduced CWR), threat status, conservation status, legislation, geographical distribution, genetic diversity, social considerations, or other relevant criteria (Maxted *et al.*, 1997c; Magos Brehm *et al.*, 2010; Kell *et al.*, 2015; Magos Brehm *et al.*, 2017). In this paper, the development of a national CWR inventory for Mexico is presented as a starting point for the development of a national CWR conservation strategy.

2.3 MATERIALS AND METHODS

2.3.1 CWR checklist

The initial step towards the development of a national CWR inventory is the creation of a CWR checklist. For this purpose, two lists were required. First, the Taxonomic Catalogue of Species of Mexico (CONABIO, 2009) was used as the floristic checklist of vascular plant species. This list contains the names of the more than 25,000 plant taxa occurring in Mexico. This floristic checklist was then matched against a second list containing the genera of crops cultivated in Mexico, including native and non-native human food, forage and fodder, medicine and spice, industrial, and ornamental crops (Molina and Córdova, 2006; INEGI, 2007; CONABIO, 2008; SIAP, 2017) to produce the Mexican CWR checklist. All accepted taxonomic names were confirmed against GRIN Taxonomy (USDA–ARS–GRIN, 2017) and Tropicos nomenclature (Missouri Botanical Garden, 2017).

2.3.2 Selection criteria

A series of selection criteria and sub-criteria related to biological and socio-economical characteristics were then applied to the CWR checklist to identify those CWR taxa to be include in the first phase of conservation planning and implementation, the national CWR inventory. The criteria used were:

1. Economic value of the related crop. This criterion includes four sub-criteria: (a) production value (MXN), (b) production area (ha) over a period of 10 years (2007–2016), (c) the projected production value, and (d) projected production area over a period of 10 years (2017–2026). Projections were estimated to include potential increasing or decreasing economic values of crops in the near future and maximize the inclusion of emergent crops.
2. Energy, protein and fat content of related crop. These per capita values were included to estimate the importance of the crops for human consumption in Mexico, for a period of ten years (2002–2011) (FAO, 2017).
3. Potential for crop improvement. In this criterion, the Gene Pool (GP) and Taxon Group (TG) concepts were applied to define the level of relationship to the crop, in accordance to the respective definitions provided by Harlan and de Wet (1971) and Maxted *et al.* (2006). The latter proposed that a close crop–CWR relationship would be "defined in terms of the CWR belonging to the Gene Pools 1 or 2, or Taxon Groups 1 to 4 of the crop". CWR taxa belonging to GP3 were also included when their use in crop improvement had previously been confirmed, *e.g. Gossypium aridum* (Rose & Standl.) Skovst. (Romano *et al.*, 2009), *Helianthus californicus* DC. (Feng *et al.*, 2006; Christov, 2008; Kaya, 2014), *Phaseolus acutifolius* A. Gray (Singh, 2001; Munoz *et al.*, 2004; Porch *et al.*, 2013) or *Tripsacum* L. (Prischmann *et al.*, 2009).

4. Threat and protection status. The global and national risk of extinction of wild plants was compiled from a) the List of threatened species of the Mexican Norm NOM–059–SEMARNAT–2010 (DOF, 2015); b) the IUCN Red List of Threatened Species (IUCN, 2016); and c) the CITES, the international agreement aiming for the protection of wild plants and animals in the global market (CITES, 2015).

5. Taxon distribution, taxonomic distinction and occurrence status. Including (a) national endemism, (b) national geographic distribution (number of states in which the taxon occurs), taxonomic singularity (number of taxa within the genus), and occurrence status (invasive, introduced or native).

6. Crop uses. Many Mexican crops are multi-purpose so the number of the related crops of a CWR, and the number of uses of the related crop were used as additional indicators of the socio-economic importance of the crops.

The additional information was obtained from different national and international sources (Hanelt and IPK 2001; Molina and Córdova, 2006; INEGI, 2007; CONABIO, 2008; 2011; Vincent *et al.*, 2013; SIAP, 2017; USDA–ARS–GRIN, 2017).

2.3.3 Prioritization

The priority of the CWR taxa were calculated using the ranking system based on a point scoring method (Magos Brehm *et al.*, 2010) in which each category within a criterion/sub-criterion is assigned a specific number of points, depending on the scale and the significance or implication of the criterion (Table 2.1). For example, endemic taxa will get more points than the non-endemic taxa; also those taxa related to crops of higher economic value will have more points than those related to crops of lower economic value. On the other hand, taxa with a narrower distribution were given more points that those with a wider distribution. Once the corresponding points were assigned to all the categories for each criterion, the next step was to apply these criteria to each taxon in the CWR checklist and sum the corresponding points. The total number of points of all the criteria is the final score for the taxon and that was used to prioritize the taxa. Taxa with a score of 48 and higher were selected, which meant the top 300 prioritized CWR were to be included in the inventory. Applying this scoring method, all CWR taxa related to both native and non-native crops cultivated in Mexico were prioritized. CWR related to exclusively to ornamental species or to non-native crops were excluded from the CWR inventory.

Table 2.1. Selection criteria, categories and scores used for the prioritization of Mexican crop wild relatives.

Criterion	Subcriterion	Category/Score							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Economic Value of the related crop	Production Value (Thousands of MXN)†‡	100§	1,000	10,000	100,000	1,000,000	10,000,000	100,000,000	1,000,000,000
	Projected Production Value (Thousands of MXN)†¶	100	1,000	10,000	100,000	1,000,000	10,000,000	100,000,000	10,000,000,000
	Production Area (has)†‡	10	100	1,000	10,000	100,000	1,000,000	10,000,000	100,000,000
	Projected Production Area (has)†¶	10	100	1,000	10,000	100,000	1,000,000	10,000,000	1,000,000,000
Level of Relationship to the crop	Gene Pool Level#	GP3	NA	NA	GP2	NA	NA	NA	GP1
	Taxon Group Level††	TG4	NA	NA	TG3	NA	TG2	NA	TG1b
Food Supply	Energy Supply (Kcal/capita/day)‡‡	0.5	2	5	10	50	200	500	1,100
	Protein Supply (g/capita/day)‡‡	1	NA	NA	10	NA	NA	NA	30
	Fat Supply (g/capita/day)‡‡	1	NA	NA	10	NA	NA	NA	20
Threat Status	Threat Status NOM–059§§	E	NA	NA	Pr	NA	A	NA	P
	Threat Status CITES (Appendix)	III	NA	NA	II	NA	NA	NA	I
	Threat Status IUCN¶¶	EW	NA	DD	LC	NT	VU	EN	CR

Table 2.1. (continued)

Geographic Distribution	National Distribution (No. States)	32	24	20	16	12	8	4	1
	Singularity (No. Taxa/Genus)	320	160	80	40	20	10	5	1
	Occurrence Status	Invasive	NA	NA	Introduced	NA	NA	NA	Native
	Endemism Status##	NE	NA	NA	NA	NA	NA	NA	Endemic
	Endemism Status (State Area Km^2)	2,000,000	250,000	175,000	80,000	70,000	30,000	7,000	2,000
Use	Number of crops (related to)	1	2	NA	4	6	NA	8	10
	No. of uses†	1	NA	2	NA	4	NA	8	16

† Values of the related crop.
‡ Values from 2007–2016.
§ Numbers are the highest values of the range.
¶ Values for 2017–2026.
# GP1: Primary Gene Pool, GP2: Secondary Gene Pool, GP3: Tertiary Gene Pool.
†† TG1b: Taxon Group 1b, TG2: Taxon Group 2, TG3: Taxon Group 3, TG4: Taxon Group 4.
‡‡ Values from 2002–2011.
§§ E: Extinct in the wild, Pr: under Special Protection, A: Threatened, P: Endangered.
¶¶ EW: Extinct in the wild, DD: Data Deficient, LC: Least Concerned, NT: Near Threatened, VU: Vulnerable, EN: Endangered, CR: Critically Endangered.
NE: non-endemic.

2.4 RESULTS AND DISCUSSION

The inventory contains 310 high priority CWR taxa, comprising 27 families, 43 genera, 286 species and 24 sub-specific taxa (Supplementary Table 2.1). The families with the highest number of taxa are Lamiaceae (Labiatae) (34), Cactaceae (33), Solanaceae (30), Euphorbiaceae (26), Asteraceae (Compositae) (23), Fabaceae (Leguminosae) (22) and Poaceae (Gramineae) (20). The genera with the highest number of taxa are *Salvia* L. (34), *Manihot* Mill. (21), *Stenocereus* (A. Berger) Riccob (20), *Solanum* L. (20), *Agave* L. (19), *Amaranthus* L. (17), *Tripsacum* L. (15), *Phaseolus* L. (14), *Annona* L. (12), *Opuntia* L. (12) and *Cucurbita* L. (11) (Table 2.2). Below are the CWR that have been prioritized by each selection criteria.

Table 2.2. Families of Mexican crop wild relatives included in the inventory.

Family	Genus	Related Crop	CWR
Amaranthaceae	*Amaranthus*	Amaranth	17
Anacardiaceae	*Spondias*	Purple mombin	2
Annonaceae	*Annona*	Annona	12
Asparagaceae	*Agave*	Agave	19
Asteraceae	*Helianthus*	Sunflower	9
	Porophyllum	Poreleaf, pipicha	5
	Tagetes	Marigold	9
Bixaceae	*Bixa*	Annatto	1
Cactaceae	*Hylocereus*	Pitahaya	1
	Opuntia	Opuntia	12
	Stenocereus	Pitaya, cina	20
Caricaceae	*Carica*	Papaya	1
	Jacaratia	Papaya	2
	Jarilla	Papaya	2
Convolvulaceae	*Ipomoea*	Sweet-potato	6
Cucurbitaceae	*Cucurbita*	Pumpkin, squash, cushaw	11
	Sechium	Chayote	4
Ebenaceae	*Diospyros*	Black sapote	3
Euphorbiaceae	*Jatropha*	Physic nut	5
	Manihot	Cassava	21
Fabaceae	*Leucaena*	Lead tree	5
	Pachyrhizus	Yam-bean	2
	Phaseolus	Bean	14
	Pithecellobium	Blackbead	1

Table 2.2. (continued)

Family	Genus	Related Crop	CWR
Juglandaceae	*Carya*	Pecan	4
Lamiaceae	*Salvia*	Chia, sage	34
Lauraceae	*Persea*	Avocado	2
Malpighiaceae	*Byrsonima*	Nance	1
Malvaceae	*Gossypium*	Cotton	6
	Theobroma	Cacao	1
Myrtaceae	*Psidium*	Guava	5
Orchidaceae	*Vanilla*	Vanilla	2
Pinaceae	*Pinus*	Pinyon	5
Poaceae	*Tripsacum*	Maize	15
	Zea	Maize	5
Portulacaceae	*Portulaca*	Purslane	2
Rosaceae	*Crataegus*	Mexican hawthorn	3
Sapotaceae	*Manilkara*	Naseberry, gum tree	2
	Pouteria	Marmalade-plum, yellow sapote	8
Simmondsiaceae	*Simmondsia*	Goatnut	1
Solanaceae	*Capsicum*	Chili pepper	2
	Physalis	Husk tomato	8
	Solanum	Potato	20

2.4.1 Economic value of the related crop

The top ten crops represented in the inventory with the highest production value and production area in the country are shown in Table 2.3. Maize is the most economically valuable crop and it has the highest number of CWR (20), as does potato. Avocado and chili pepper are the second and third most economically important crops although they have the lowest number of CWR, with 2 each. Regarding production area, maize and beans are the most cultivated crops. The top ten crops are represented by 100 wild relatives, almost one third of the inventory, highlighting the importance of these genetic resources for urgent conservation.

Wild relatives of three of the top 10 most economically important crops in the world have their centre of diversity in Mexico and are included in the Mexican national inventory, namely maize, potato and cotton (FAO, 2017). CWR of these crops were identified as global priorities and are included in the “Harlan and de Wet Inventory” (Vincent *et al.*, 2013, http://www.cwrdiversity.org/), along with wild relatives of chili pepper, papaya, pumpkin, sunflower, sweet potato, cassava, avocado, beans and cacao. The Mexican national inventory contains 139 prioritized CWR taxa (45%) that are also included in the global inventory (Vincent *et al.*, 2013), so the conservation of these genetic resources in Mexico is essential not only for national but for global food security. As the global inventory has proven a valuable instrument when developing conservation strategies (Castañeda-Álvarez *et al.*, 2016), the national CWR inventory can be a fundamental resource in the development of a national conservation strategy for Mexico.

Table 2.3. Native crops with the highest accumulated and projected production value and production area from 2007 to 2016 (original values from SIAP, 2017) in Mexican pesos, average exchange rate for the period is 13.428.

Crop	**Accumulated Production Value (millions of USD)**	**Projected Production Value (millions of USD)**	**Accumulated Production Area (millions of ha)**	**Projected Production Area (millions of ha)**	**CWR**
Maize	60,811	120,444	83.1	165.5	20
Avocado	13,408	26,009	1.5	3.0	2
Chili pepper	11,291	21,566	1.5	2.9	2
Beans	8,399	16,932	17.1	34.4	14
Potato	7,831	15,894	0.6	1.3	20
Agave	4,128	7,606	1.7	3.5	19
Pecan	3,976	7,678	1.0	1.9	4
Cotton	3,613	7,500	1.3	2.7	6
Papaya	2,300	4,409	0.2	0.3	5
Husk tomato	1,849	3,647	0.5	0.9	8

2.4.2 Importance for human consumption

Forty taxa are related to maize, beans and cotton, the main sources of energy, protein and fat in the country (FAO, 2017) (Supplementary Table 2.1). The inventory also includes wild relatives of crops such as cacao, which is economically important due to its high production value (SIAP, 2017), but does not contribute substantially to per capita consumption in the country (FAO, 2017).

2.4.3 Potential of CWR for crop improvement

About 138 (45%) of the taxa were prioritized using the Gene Pool concept while the other 172 (55%) using the Taxon Group concept (Supplementary Table 2.1). Approximately 11% (34) of them belong to the GP1 or TG1B of 22 crops. There is a continuously increasing number of CWR with potential or confirmed utilization in genetic improvement of crops as breeding techniques are being developed (Ford-Lloyd *et al.*, 2011). At least 36 prioritized CWR (12%) have a recognized potential as gene donor or have been successfully used in the genetic improvement of 11 Mexican native crops, including potato, sunflower, beans, cassava, guava, sweet potato, pumpkin/squash, maize, cotton, chili pepper and lead tree (Table 2.4). Potato has the largest number of prioritized CWR that have been used in genetic improvement. They are mainly used to confer resistance to biotic stresses, principally disease resistance, but also contribute abiotic stress traits (*e.g.* drought and heat tolerance), agronomic traits (*e.g.* yield improvement) and quality traits (*e.g.* oil, starch and protein content) (Figure 2.1).

Table 2.4. Confirmed and potential use of Mexican prioritized crop wild relatives in the genetic improvement of native crops†.

Crop	CWR	Confirmed or potential use
Chili pepper	*Capsicum frutescens* L.	Cytoplasmic male sterility (Monteiro *et al.*, 2011), yield improvement (Rao *et al.*, 2003)
Pumpkin, squash, cushaw	*Cucurbita lundelliana* L. H. Bailey	Powdery mildew resistance (Paris, 2008)
	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. *martinezii* (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	Cucumber mosaic virus resistance (Metwally *et al.*, 1996), powdery mildew resistance (Formisano *et al.*, 2010), papaya ringspot virus resistance (de Oliveira *et al.*, 2003)
Cotton	*Gossypium aridum* (Rose & Standl.) Skovst.	Reniform nematode resistance (Romano *et al.*, 2009)
	Gossypium barbadense L.	Fibber quality traits (Zamir, 2001; Shi *et al.*, 2008)
Sunflower	*Helianthus annuus* L.	Soil salinity tolerance (Seiler and Malek, 2011), seed size, *Phomopsis* brown stem canker, *Sclerotinia* resistance, early maturing (Christov, 2008), broomrape resistance, *Verticillium* wilt resistance (Hajjar and Hodgkin, 2007), downy mildew resistance (Seiler and Malek, 2011; Hajjar and Hodgkin, 2007; Christov, 2008), rust resistance (Seiler and Malek, 2011; Hajjar and Hodgkin, 2007), cytoplasmic male sterility (Hajjar and Hodgkin, 2007; Christov, 2008), fertility restoration genes (Horn, 2002; Christov, 2008), seed oil content (Christov, 2008; Vear, 2011)
	Helianthus californicus DC.	Downy mildew resistance, fertility restoration Genes (Christov, 2008), *Sclerotinia* resistance (Feng *et al.*, 2006), broomrape resistance (Kaya, 2014)
	Helianthus ciliaris DC.	Broomrape resistance, Sclerotinia resistance (Christov *et al.*, 2009), downy mildew resistance (Christov, 2008; Christov *et al.*, 2009), fertility restoration genes, early maturing (Christov, 2008), powdery mildew resistance (Kaya, 2014), sunflower moth resistance (Vear, 2011)
	Helianthus hirsutus Raf.	Broomrape resistance, *Sclerotinia* resistance (Christov *et al.*, 2009), downy mildew resistance (Christov, 2008; Christov *et al.*, 2009), fertility restoration genes (Seiler, 2000; Christov, 2008; Seiler, 1991), acidic soil tolerance (Kantar *et al.*, 2015), Alternaria leaf spot resistance, stem weevil resistance (Vear, 2011), *Phomopsis* brown stem canker (Kaya, 2014; Vear, 2011), tobacco caterpillar resistance (Sujatha and Lakshminarayana, 2007), high oleic acid concentration (Seiler, 1984)

Table 2.4. (continued)

Crop	CWR	Confirmed or potential use
	Helianthus niveus (Benth.) Brandegee	Downy mildew resistance, *Sclerotinia* resistance (Tikhomirov and Chiryaev, 2005), *Phomopsis* brown stem canker (Kaya, 2014; Tikhomirov and Chiryaev, 2005), seed oil content (Thompson *et al.*, 1981)
Sweet potato	*Ipomoea leucantha* Jacq.	Heat tolerance, sandy soil tolerance (Khoury *et al.*, 2015), gene transfer (Austin, 1978)
	Ipomoea trifida (Kunth) G. Don	High starch content (Shiotani *et al.*, 1991), dry matter yield, protein content (Iwanaga, 1988), black rot resistance (Sakamoto, 1976; Shiotani *et al.*, 1991; Lebot, 2010; Khoury *et al.*, 2015), root knot nematode resistance, root lesion nematode resistance (Sakamoto, 1976; Shiotani *et al.*, 1991; Iwanaga, 1988), weevil resistance (Iwanaga, 1988; Shiotani *et al.*, 1991; Lebot, 2010; Khoury *et al.*, 2015), heat tolerance, waterlogging tolerance (Khoury *et al.*, 2015), yield improvement (Iwanaga, 1988; Khoury *et al.*, 2015), drought tolerance (Shiotani *et al.*, 1991; Lebot, 2010; Khoury *et al.*, 2015), scab resistance (Lebot, 2010; Khoury *et al.*, 2015)
	Ipomoea triloba L.	Drought tolerance (Yang *et al.*, 2009; Khoury *et al.*, 2015), soluble sugar (Yang *et al.*, 2009), heat tolerance (Khoury *et al.*, 2015)
Lead tree	*Leucaena diversifolia* (Schltdl.) Benth.	Cold tolerance, disease resistance, potential gene source (Westphal and Jansen, 1989)
Cassava	*Manihot angustiloba* (Torr.) Mull. Arg.	Drought tolerance (Jennings, 1995), gene transfer, crop quality for high starch content (Narina *et al.*, 2011)
	Manihot chlorosticta Standl. & Goldman	Soil salinity tolerance, poor soil tolerance (Narina *et al.*, 2011), source of waxy-starch (Ceballos *et al.*, 2006)
	Manihot crassisepala Pax & K. Hoffm.	Source of waxy-starch (Ceballos *et al.*, 2006)
	Manihot pringlei S. Watson	Low cyanide content (Nassar *et al.*, 2008)
	Manihot rubricaulis I. M. Johnst.	Cold tolerance (Jennings, 1995), drought resistance (Rogers and Appan, 1973)
Tepary bean, Scarlet runner bean, Year bean, Common bean, Lima bean	*Phaseolus acutifolius* A. Gray	Common bacterial blight resistance (Scott and Michaels, 1992; Mejía-Jiménez, 1994; Singh, 2001; Singh and Munoz, 1999), *Fusarium* wilt resistance, seed protein content (Porch *et al.*, 2013), gene transfer (Munoz *et al.*, 2004; Mejía-Jiménez *et al.*, 1994), drought tolerance (Singh, 2001; Markhart, 1985; Porch *et al.*, 2009; Mejía-Jiménez, 1994; Munoz *et al.*, 2004), heat tolerance (Mejía-Jiménez, 1994; Nabhan, 1979; Munoz *et al.*, 2004; Porch *et al.*, 2013), soil salinity tolerance (Munoz *et al.*, 2004), ashy stem blight resistance, bean gold mosaic

Table 2.4. (continued)

Crop	CWR	Confirmed or potential use
		virus resistance, bean rust resistance (Singh, 2001), bruchid resistance, leafhopper resistance (Mejía-Jiménez, 1994; Singh, 2001)
	Phaseolus angustissimus A. Gray	Frost tolerance (Balasubramanian *et al.*, 2004)
	Phaseolus coccineus L.	Aluminium tolerance (de Ron *et al.*, 2015; Porch *et al.*, 2013; Butare *et al.*, 2011), bean stem maggot resistance (de Ron *et al.*, 2015), bean yellow mosaic virus resistance (Singh, 2001; de Ron *et al.*, 2015), angular leaf spot resistance (Mahuku, 2003; Singh, 2001), anthracnose resistance (Singh, 2001; Mahuku, 2002), common bacterial blight resistance (Porch *et al.*, 2013; Beaver *et al.*, 2008; Miklas *et al.*, 1999; Zapata *et al.*, 2004; Singh, 2001; Freytag, 1982), *Fusarium* root rot resistance (Singh, 2001; Wilkinson, 1983), white mold resistance (Schwartz and Singh, 2013; Singh, 2001; Schwartz *et al.*, 2006), cold tolerance, bean gold mosaic virus resistance (Singh, 2001), Ascochyta blight resistance (Singh, 2001; Schmit and Baudoin, 1992), yield improvement (Wilkinson, 1983; Singh, 2001)
	Phaseolus dumosus Macfad.	Angular leaf spot resistance (Mahuku *et al.*, 2003), anthracnose resistance (Porch *et al.*, 2013), *Ascochyta* blight resistance (Porch *et al.*, 2013; de Ron *et al.*, 2015), white mold resistance (Schwartz and Singh, 2013)
	Phaseolus maculatus Scheele subsp. *ritensis* (M. E. Jones) Freytag	Disease resistance (Maesen and Somaatmadja, 1989)
Guava	*Psidium friedrichsthalianum (O. Berg) Nied.*	Potential for disease resistance in guava (Carneiro *et al.*, 2012)
Potato	*Solanum bulbocastanum* Dunal	Late blight resistance (Jansky, 2000; Hodgkin and Hajjar, 2008; Srivastava *et al.*, 2016), root knot nematode resistance (Suszkiw, 2009; Srivastava *et al.*, 2016), drought tolerance, heat tolerance, aphid resistance, cyst nematode resistance, early blight resistance (Srivastava *et al.*, 2016), blackleg and soft rot resistance (Jansky, 2000; Srivastava *et al.*, 2016)

Table 2.4. (continued)

Crop	CWR	Confirmed or potential use
	Solanum demissum Lindl.	Late blight resistance (Jansky, 2000; Jansky *et al.*, 2013; Bradshaw *et al.*, 2006; Srivastava *et al.*, 2016; Hajjar and Hodgkin, 2007), potato leaf roll virus resistance (Jansky, 2000; Srivastava *et al.*, 2016), blackleg and soft rot resistance (Srivastava *et al.*, 2016; Jansky, 2000), frost tolerance, Colorado potato beetle resistance, cyst nematode resistance, potato virus Y resistance, wart resistance (Srivastava *et al.*, 2016)
	Solanum hjertingii Hawkes	Blackleg and soft rot resistance (Srivastava *et al.*, 2016; Jansky, 2000), root knot nematode resistance, spindle tuber viroid resistance (Srivastava *et al.*, 2016)
	Solanum hougasii Correll	Late blight resistance (Inglis *et al.*, 2007), root knot nematode resistance (Spooner and Bamberg, 1994), potato virus Y resistance (Jansky, 2000)
	Solanum iopetalum (Bitter) Hawkes	Late blight resistance (Jansky, 2000)
	Solanum pinnatisectum Dunal	Drought tolerance, heat tolerance, blackleg and soft rot resistance, Colorado potato beetle resistance, late blight resistance, chip making from cold (Srivastava *et al.*, 2016)
	Solanum polyadenium Greenm.	Colorado potato beetle resistance, late blight resistance (Srivastava *et al.*, 2016)
	Solanum stenophyllidium Bitter	Frost tolerance (Srivastava *et al.*, 2016)
	Solanum stoloniferum Schltdl.	Late blight resistance (Hajjar and Hodgkin, 2007; Bradshaw *et al.*, 2006; Srivastava *et al.*, 2016), potato virus Y resistance (Ross, 1979; Srivastava *et al.*, 2016; Jansky *et al.*, 2013), drought tolerance, heat tolerance, aphid resistance, potato leaf roll virus resistance (Srivastava *et al.*, 2016)
	Solanum verrucosum Schltdl.	Late blight resistance (Srivastava *et al.*, 2016; Liu and Halterman, 2009)
Maize	*Tripsacum dactyloides* (L.) L. var. *dactyloides*	Corn rootworm tolerance (Prischmann *et al.*, 2009)
	Zea diploperennis Iltis, Doebley & R. Guzman	Tiller number (Sondahl *et al.*, 1984), maize chlorotic dwarf virus resistance, maize chlorotic mottle virus resistance, maize streak virus resistance (Nault *et al.*, 1982), *Striga* resistance (Amusan *et al.*, 2008), disease resistance (Wei *et al.*, 2003)

† Adapted from the Inventory of Crop Wild Relatives of the United States (Khoury *et al.*, 2013), "The Harlan and de Wet Crop Wild Relative Inventory" (Vincent *et al.*, 2013) and U.S. National Genetic Resources Program (USDA–ARS–GRIN, 2017).

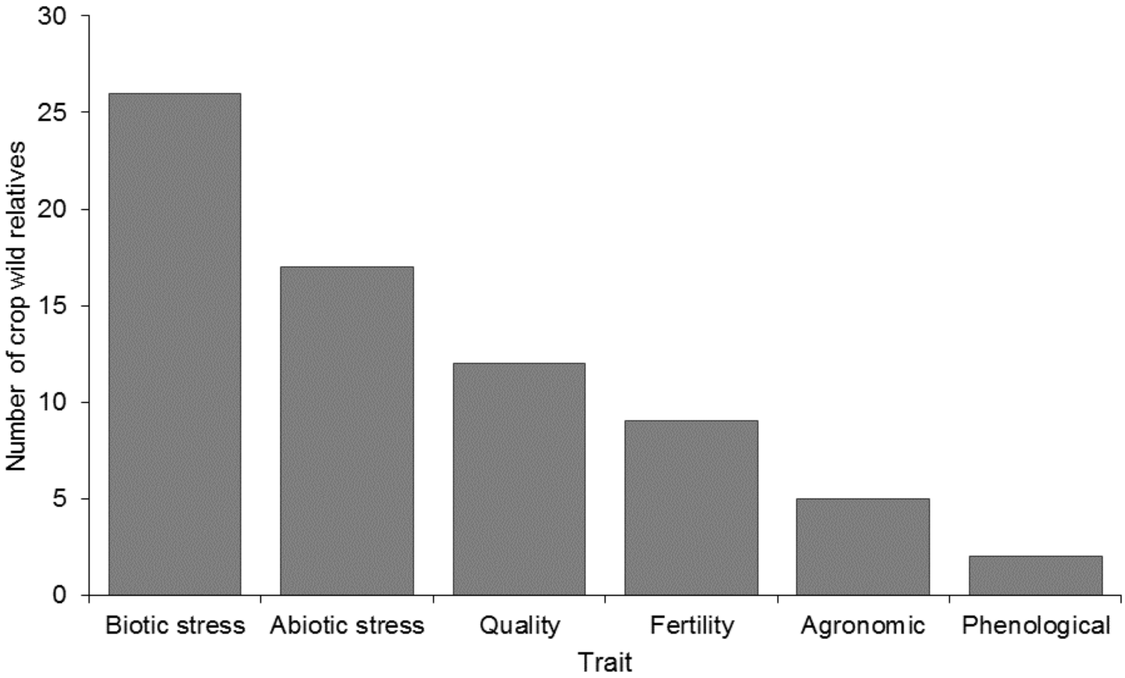

Figure 2.1. Use of the prioritized crop wild relatives in the genetic improvement of Mexican native crops.

2.4.4 Threat and protection status of CWR

About 15% of the prioritized CWR taxa (45) have been assessed to determine their global and national risk of extinction under the IUCN or NOM–059–SEMARNAT–2010 classifications, respectively, 18 (6%) of which are threatened. Additionally, nine taxa (3%) are listed under the CITES classification and so worthy of conservation priority (Supplementary Table 2.1). On the IUCN red list categories, four CWR taxa have been assessed as Endangered, three as Vulnerable and one as Near Threatened, whereas four taxa have been assessed as Endangered, three as Threatened and six are Under Special Protection according to the NOM–059–SEMARNAT–2010 (Table 2.5). Among the genera with threatened CWR are *Agave* L. (2), *Diospyros* (1), *Persea* Mill. (1), *Pinus* L. (3), *Pouteria* Aubl. (2), *Stenocereus* (A. Berger) Riccob (4), *Tripsacum* L. (2), *Vanilla* Mill. (1), and *Zea* L (2). All prioritized CWR taxa belonging to the family Pinaceae and Cactaceae have been categorized under at least one of the threat status sources (NOM–059–SEMARNAT–2010, IUCN or CITES). From the 33 taxa of the family Cactaceae included, the family with the highest number of prioritized CWR, 25 taxa (76%) have been assessed using the IUCN categories and criteria, three of which are threatened. However, most Mexican CWR taxa lack assessments. Some prioritized CWR have a relatively restricted distribution within one state of the country, such as *Gossypium schwendimanii* Fryxell & S. D. Koch, *Manihot oaxacana* D. J. Rogers & Appan, *Sechium chinantlense* Lira & F. Chiang, *Solanum guerreroense* Correll, *Tripsacum zopilotense* Hern.-Xol. & Randolph or *Zea diploperennis* H. H. Iltis *et al*. Further assessments are required, and are currently being undertaken as part of a CWR conservation strategy for Mexico (Chapter 5) and Mesoamerica (http://www.psmesoamerica.org/en/), to improve the threat status assessment of prioritized Mexican CWR.

Table 2.5. Threatened categories of prioritized crop wild relatives.

CWR Taxa	NOM–059 Category	IUCN Category	Reference
Agave congesta Gentry	Pr		DOF, 2015
Agave kewensis Jacobi	P		DOF, 2015
Diospyros conzattii Standl.	P		DOF, 2015
Persea schiedeana Nees		VU	World Conservation Monitoring Centre, 1998a
Pinus maximartinezii Rzed.	P	EN	DOF, 2015; Farjon, 2013
Pinus monophylla Torr. & Frém.	Pr		DOF, 2015
Pinus quadrifolia Parl. ex Sudw.	Pr		DOF, 2015
Pouteria belizensis (Standl.) Cronquist		VU	World Conservation Monitoring Centre, 1998b
Pouteria rhynchocarpa T.D. Penn.		EN	World Conservation Monitoring Centre, 1998c
Stenocereus alamosensis (J.M. Coult.) A.C. Gibson & K.E. Horak		VU	Burquez Montijo *et al.*, 2013
Stenocereus beneckei (Ehrenb.) A. Berger & Buxb.		NT	Arreola and Terrazas, 2013
Stenocereus chrysocarpus Sánchez-Mej.		EN	Terrazas *et al.*, 2013a
Stenocereus eruca (Brandegee) A.C. Gibson & K.E. Horak	A		DOF, 2015

Table 2.5. (continued)

CWR Taxa	NOM–059 Category	IUCN Category	Reference
Stenocereus martinezii (J.G. Ortega) Buxb.	Pr	EN	DOF, 2015; Terrazas *et al.*, 2013b
Tripsacum maizar Hern.-Xol. & Randolph	A		DOF, 2015
Tripsacum zopilotense Hern.-Xol. & Randolph	Pr		DOF, 2015
Vanilla planifolia Andrews	Pr		DOF, 2015
Zea diploperennis Iltis, Doebley & R. Guzmán	A		DOF, 2015
Zea perennis (Hitchc.) Reeves & Mangelsd.	P		DOF, 2015

2.4.5 Distribution of CWR

As Mexico has a relatively large number of endemic species, it is not surprising that there are a considerable number of endemic CWR, about one third of the total taxa. Although several wild relatives are distributed not only in Mexico, but beyond the southern frontier to Central American countries, in the Mesoamerican region, and past the northern frontier with the United States of America. Thus, ≈31% of the CWR taxa are endemic to Mexico (97), 11% to Mesoamerica (35) and 12% to Mexico and the United States of America (36) (Figure 2.2). About 44% (43) of the taxa endemic to Mexico belong to the families Solanaceae, Euphorbiaceae and Cactaceae. The genera with the highest number of taxa endemic to Mexico are *Manihot* Mill. (15), *Solanum* L. (15), *Stenocereus* (A. Berger) Riccob (10), *Salvia* L. (8), *Agave* L. (7), *Cucurbita* L. (5) and *Zea* L. (4). Poaceae is the family with the highest number of CWR endemic to Mesoamerica (9), primarily *Tripsacum* L. (8), followed by Solanaceae (4), *Solanum* L. (4), *Manihot* Mill. (3), and *Salvia* L. (3) the genera with the highest number of CWR. On the other hand, the genera with more species endemic to Mexico and the United States of America are *Helianthus* L. (6), *Phaseolus* L. (4) and *Amaranthus* L.

(4). Thus, it is important to recognize the need to establish multi-national actions for the conservation of these taxa as proposed by Khoury *et al.* (2013) in the USA and like in the USA the Fabaceae and Poaceae were identified as the two families with the highest number of prioritized CWR taxa.

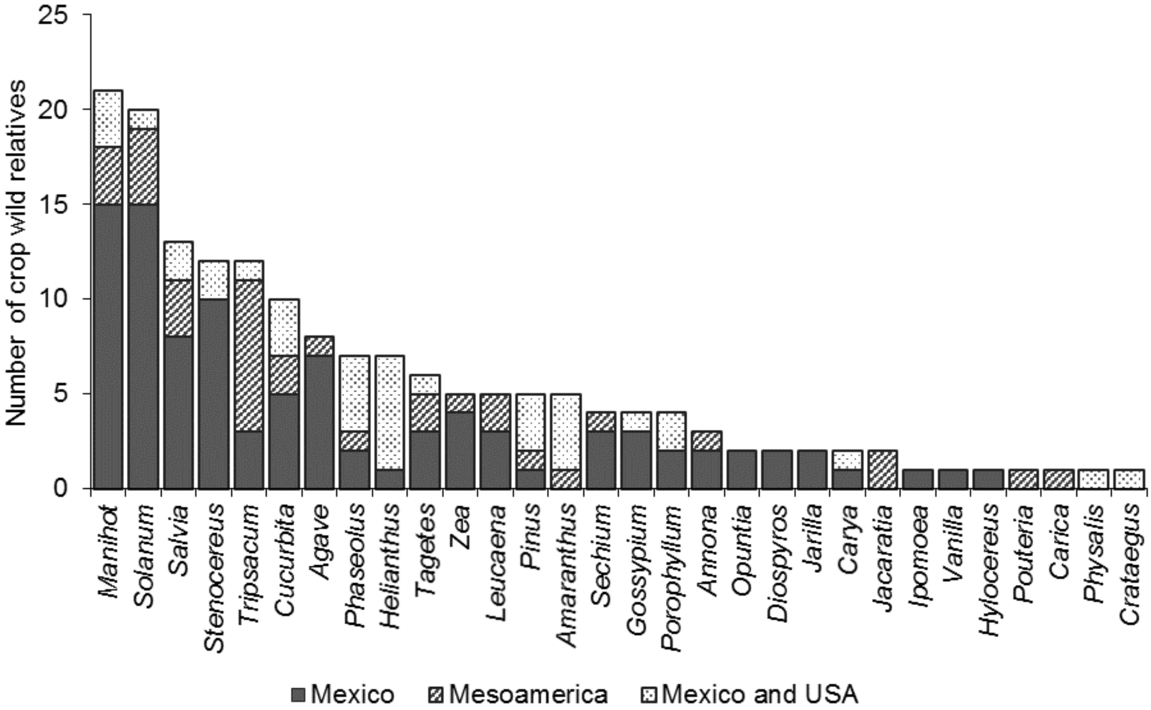

Figure 2.2. Number of prioritized crop wild relatives endemic to Mexico, Mesoamerica or the region of Mexico and the United States of America.

2.4.6 Uses of the related crop

The inventory contains wild taxa related to sunflower, cacao and maize, crops which utilization is diversified (Supplementary Table 2.1). Most prioritized CWR are related to human food crops (Figure 2.3), these include CWR related to: fruit crops, including custard apple (*Annona* L.), papaya (*Carica* L., *Jacaratia* A.DC., *Jarilla* Rusby), Mexican hawthorn (*Crataegus* L.), squash, cushaw and pumpkin (*Cucurbita* L.), prickly pear (*Opuntia* L.), avocado (*Persea* Mill.), yellow sapote (*Pouteria* Aubl.), guava (*Psidium* L.) and pitaya

(*Stenocereus* (A. Berger) Riccob); industrial crops, agave (*Agave* L.), cotton (*Gossypium* L.), sunflower (*Helianthus* L.), physic nut (*Jatropha* L.), marigold (*Tagetes* L.), cacao (*Theobroma* L.), and vanilla (*Vanilla* Mill.); tuber crops, sweet potato (*Ipomoea* L.), cassava (*Manihot* Mill.) and potato (*Solanum* L.); vegetable crops, nopal (*Opuntia* L.) (also a forage crop), yam-bean (*Pachyrhizus* Rich. ex DC.), husk tomato (*Physalis* L.) and chayote (*Sechium* P. Browne); cereal and pseudo-cereal crops, amaranth (*Amaranthus* L.) and maize (*Tripsacum* L., *Zea* L.) (also a forage crop); medicine and spice crops, annatto (*Bixa* L.), chili pepper (*Capsicum* L.) and chia (*Salvia* L.); legume crops, lead tree (*Leucaena* Benth) and beans (*Phaseolus* L.); nut crops, pecan (*Carya* Nutt.) and pinyon pine (*Pinus* L.) (Supplementary Table 2.1). Pinyon wild relatives are the only forest species included in the inventory.

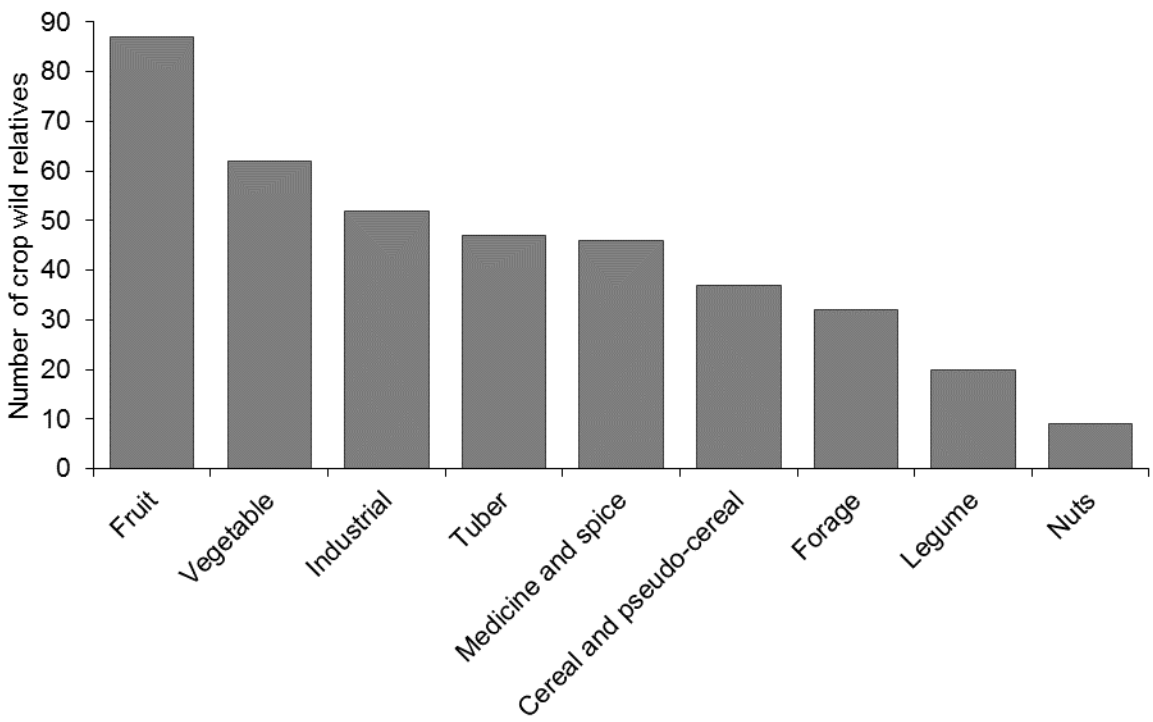

Figure 2.3. Number of prioritized crop wild relative taxa per crop use.

2.5 CONCLUSIONS

The Mexican national prioritized CWR inventory is based on a comprehensive and tested methodology, using criteria associated with economic importance of the related crop, the relatively close relationship to the crop, the threatened status, and nutritional, geographic and socio-economic factors. Due to the high diversity of CWR in Mexico, a phased approach to CWR conservation is recommended and those included in the Mexican national prioritized CWR inventory provide an initial set of taxa that require immediate *in situ* and *ex situ* conservation action. The CWR taxa identified include a significant number that also have regionally and globally importance. The inventory can be used as a tool by natural resources stakeholders and researchers working for the systematic conservation of prioritized CWR. It is also a source for the identification of genetic resources that can potentially be used in breeding of native crops. The preservation of these prioritized CWR will help to face the genetic erosion due to the impacts of climate change and other factors threatening the national diversity and food security.

CHAPTER 3

DIVERSITY AND CONSERVATION PRIORITIES OF CROP WILD RELATIVES IN MEXICO

3.1 ABSTRACT

Crop wild relatives (CWR) are valuable resources for crop breeding due to their close genetic relationship to the cultivated plants and wide genetic variation, allowing the introgression of traits to the crops, such as resistance to plant pests and diseases, or adaptability to climate change. Mexico is a centre of agrobiodiversity, including CWR, but climate change, and other factors, are contributing to the loss of important Mexican CWR genetic diversity. The *in situ* and *ex situ* conservation status of Mexican priority CWR were assessed through a gap analysis as part of a national CWR conservation strategy for Mexico, to ensure the long-term preservation and improve the availability of these genetic resources. A set of 310 priority CWR taxa, previously identified as part of the national CWR inventory for Mexico, were analyzed. Species distribution modelling and ecogeographic diversity analysis were used to detect gaps in *in situ* and *ex situ* conservation at taxon and ecogeographic levels. Priority target sites were identified throughout the country for complementary *in situ* and *ex situ* conservation of these taxa. The results obtained allow making recommendations for immediate conservation actions thus helping mitigate the threats to Mexican agrobiodiversity and enhancing national and global food security.

Keywords: Crop wild relatives, CWR genetic conservation, gap analysis, *in situ* conservation, *ex situ* conservation

3.2 INTRODUCTION

Crop wild relatives (CWR) are well known as a potential source of adaptive traits for crop breeding due to their wide genetic variation (Maxted *et al.*, 1997c; Tanksley and McCouch, 1997; Vollbrecht and Sigmon, 2005; Maxted *et al.*, 2006; Ford-Lloyd *et al.*, 2011). They can be defined as wild plants with a close genetic relationship to a crop, based on their "Gene Pool" (Harlan and de Wet, 1971) and "Taxon Group" concepts (Maxted *et al.*, 2006), and can cross naturally or artificially with their related crop, conferring a range of beneficial traits including resistance to plant pests and diseases, increasing productivity, improving quality traits or gaining adaptability to climate change (Maxted and Kell, 2009; Ford-Lloyd *et al.*, 2011).

Mexico is recognized as a Vavilov centre of origin, domestication and diversification of crops of global importance (Vavilov, 1926). Many Mexican CWR were identified as globally priorities in the "Harlan and de Wet Inventory" (Vincent *et al.* 2013, www.cwrdiversity.org). Specifically, 139 priority CWR taxa are included in both the Mexican national inventory (Contreras-Toledo *et al.*, in press) and the global inventory (Vincent *et al.*, 2013), including the wild relatives of maize, potato and cotton, among others. However, climate change, and other factors (loss of habitat due to land use change, overpopulation, soil degradation, pollution, and overexploitation of natural resources, etc.), are contributing to the genetic erosion of this important Mexican natural resource (Lira *et al.*, 2009; Ureta *et al.*, 2012). Moreover, the conservation of CWR is relatively limited globally. Only an estimate of 7.6% of *ex situ* accessions in the EURISCO network (European Search Catalogue for Plant Genetic Resources) are wild populations (Magos Brehm *et al.*, 2017) and Castañeda-Álvarez *et al.* (2016) found 70% of 1,076 CWR taxa related to 81 crops of global importance require improved *ex situ* conservation. In Mexico, several national and international institutes host a wide range of Mexican crops and their wild relatives accessions, *e.g.* the National Plant Germplasm Bank (BANGEV) (www.chapingo.mx), the Botanic Garden and Biology Stations of the Institute of Biology of the National Autonomous University of Mexico (UNAM) (www.ib.unam.mx), the National Genetic Resources Center (CNRG) of the National Institute of Forestry, Agriculture and Livestock Research (INIFAP) (www.inifap.gob.mx), and the International Maize and Wheat Improvement Center (CIMMYT) (www.cimmyt.org). Specifically for maize, the Global Project of Native Maize (CONABIO, 2011, www.biodiversidad.gob.mx/genes/proyectoMaices.html) has made available 619 records of teosinte and 782 of *Tripsacum* (maize wild relatives), based on historic and recent collections (2007-2011). This collation was made with input from BANGEV, CIMMYT, INIFAP, Institute of Plant Genetic Resources Management (IMAREFI), Antonio Narro Agrarian Autonomous University (UAAAN), among others (CONABIO, 2011).

In situ conservation of CWR in protected areas (PA) is also generally deficient with only a handful of protected areas (PA) actively conserving CWR (Maxted and Kell, 2009) and none meet the *in situ* conservation standard established by Iriondo *et al.* (2012). However, in Mexico there are 182 PA, conserving 90.8 million hectares of natural habitats in Biosphere Reserves, National Parks, Areas of Protection of Flora and Fauna, Natural Monuments, Sanctuaries, etc. (www.gob.mx/conanp), so there is high potential for extending *in situ* conservation of CWR. Conservation of CWR genetic resources using complementary *in situ* and *ex situ* approaches will decrease the risk of losing valuable germplasm (Maxted and Kell, 2008) and in countries as Mexico with such CWR wealth (*e.g.* wild relatives of cassava (*Manihot* Mill.), sweet potato (*Ipomoea* L.), avocado (*Persea* Mill.), beans (*Phaseolus* L.), squash (*Cucurbita* L.), amaranth (*Amaranthus* L.), pepper (*Capsicum* L.), papaya (*Carica* L.), and maize (*Zea* L. and *Tripsacum* L.)), their conservation should be a national and global priority (Bioversity International, 2014). The conservation of *Zea diploperennis* in the Sierra de Manantlán Biosphere Reserve, Jalisco, is a good global example of active *in situ* conservation of CWR within in Mexico (UNESCO, 2011).

To help plan systematic *in situ* and *ex situ* long-term conservation of priority CWR, a national CWR conservation strategy for Mexico is being developed (Contreras-Toledo *et al*., in press) that will integrate with the Mexican Strategy for Plant Conservation 2012–2030 (CONABIO, 2012). The national CWR conservation strategy will highlight necessary conservation action identified through a gap analysis of *in situ* and *ex situ* conservation of priority CWR using the methodology proposed by Magos Brehm *et al*. (2017). Gap analysis is a well-established technique to aid genetic CWR conservation (Maxted *et al*., 2008a; Ramirez-Villegas, 2010; Vincent *et al*., 2013; Castañeda-Álvarez *et al*., 2015; Khoury *et al*., 2015; Fielder *et al*., 2015; Phillips *et al*., 2016; Garcia *et al*., 2017; Magos Brehm *et al*., 2017). Here we present the results of an *in situ* and *ex situ* conservation gap analysis of Mexican priority CWR, as a key step to developing a national CWR conservation strategy for Mexico.

3.3 MATERIALS AND METHODS

3.3.1 Priority CWR taxa

A set of 310 priority CWR taxa, comprising 27 families, 43 genera, 286 species and 24 sub-specific taxa, related to 40 crop gene pools, containing fruits, vegetables, cereals and pseudo-cereals, legumes, tubers, nuts, forages, industrial and medicinal and spice crops, were previously identified as part of the national CWR inventory for Mexico (Contreras-Toledo *et al.*, in press) using a series of biological and socio-economic criteria and a ranking system based on a point scoring method (Magos Brehm *et al.*, 2010). A summary of the priority

CWR taxa is presented in Table 3.1 and a detailed list is included in the Supplementary Table 2.1. Occurrence records of all the taxa in the national CWR inventory were obtained from national and international herbaria and genebanks (Supplementary Table 3.1). For those accessions without latitude and longitude data, but with location information, the coordinates were obtained using the Historic Archive of Geostatistical Localities of the National Institute of Geography and Statistics of Mexico (INEGI, 2017), the terrestrial vial infrastructure database of the Secretariat of Communications and Transportation (SCT, 2017) and GoogleEarth©. These tools were used to ensure the maximum possible geographic precision of the records and therefore of the performance of the species distribution models and gap analyses.

Table 3.1. Number of priority Mexican CWR taxa and genera per family used in the *in situ* and *ex situ* gap analysis of this study.

Family	Genus/era	CWR taxa	Family	Genus/era	CWR taxa
Amaranthaceae	1	17	Lamiaceae	1	34
Anacardiaceae	1	2	Lauraceae	1	2
Annonaceae	1	12	Malpighiaceae	1	1
Asparagaceae	1	19	Malvaceae	2	7
Asteraceae	3	23	Myrtaceae	1	5
Bixaceae	1	1	Orchidaceae	1	2
Cactaceae	3	33	Pinaceae	1	5
Caricaceae	3	5	Poaceae	2	20
Convolvulaceae	1	6	Portulacaceae	1	2
Cucurbitaceae	2	15	Rosaceae	1	3
Ebenaceae	1	3	Sapotaceae	2	10
Euphorbiaceae	2	26	Simmondsiaceae	1	1
Fabaceae	4	22	Solanaceae	3	30
Juglandaceae	1	4			

3.3.2 Species distribution modelling

For the creation of the species distribution models (SDM) the ecogeographic variables were selected for each taxon from an initial set of 88 variables for Mexico, grouped into three components: bioclimatic, edaphic and geophysical (Supplemental Table 3.2). The variables with a resolution of 30 arc-seconds (approx. 1 x 1 Km at the Equator) were collected from the WorldClim database (Hijmans *et al.*, 2005, www.worldclim.org), the Harmonized World Soil database (HWSD) (FAO/IIASA/ISRIC/ISSCAS/JRC, 2012) and the Shuttle Radar Topography Mission (SRTM) database (Jarvis *et al.*, 2008, www.srtm.csi.cgiar.org) and are included in the CAPFITOGEN 2.0 tools (Parra-Quijano *et al.*, 2016, www.capfitogen.net/en). The most important variables that define the adaptive scenarios for each taxon were identified using the Random Forest method (RF) integrated in the "SelecVar" tool of CAPFITOGEN 2.0 (Parra-Quijano *et al.*, 2016). This method was selected because it has a high accuracy for classification and assessment of import of variables (Cutler *et al.*, 2007). A final set of non-correlated variables was selected and used for the creation of the SDM for each CWR taxa using the maximum entropy modelling (MaxEnt) (Phillips *et al.*, 2006) due to its wide utilization for conservation purposes (Ramírez-Villegas *et al.*, 2010; Castañeda-Álvarez *et al.*, 2015, Khoury *et al.*, 2015, Fielder *et al.*, 2015, Phillips *et al.*, 2016). The SDM for each taxon with 10-50 occurrences were produced using a five-fold crossvalidate replication, while for taxa with >50 occurrence a ten-fold crossvalidate replication was selected. In all cases, the average models were used, applying the maximum training sensitivity plus specificity threshold (Liu *et al*., 2005; 2016). The models were validated prior to being used for the gap analysis by assessing three conditions: (a) average Area Under the Test ROC Curve greater than 0.7 (ATAUC>0.7), (b) the standard deviation of the ATAUC less that 0.15 (STAUC<0.15), and (c) the proportion of potential distribution area (grids) with a STAUC greater than 0.15, been less than 10% (ASD15<10%) (Ramírez-Villegas *et al.*, 2010; Castañeda-Álvarez *et al.*, 2015). All three conditions have to be met for a model to be valid. For those taxa that failed the validation assessment and those with less than 10 observation points, the potential distribution area was estimated using a circular area with a radius of 50 km (CA_{50}) around each occurrence record, counting overlapping areas only once (Hijmans and Spooner, 2001; Castañeda-Álvarez *et al.*, 2015).

3.3.3 Ecogeographic land characterization maps

Ecogeographic land characterization (ELC) maps describe potentially different environmental conditions for plant taxon adaptation and can be used to assess the representation of the ecogeographic variability in both *in situ* and *ex situ* conservation efforts, to detect conservation gaps in the representativeness of this ecogeographic diversity, to identify potential sites for *in situ* and *ex situ* conservation, to develop core collections, and to identify germplasm that can potentially be used in plant breeding (Parra-Quijano *et al.*, 2008; 2011a; 2012a, b, c and d; Castañeda-Álvarez *et al.*, 2011). ELC maps were created for the priority CWR taxa that met the validation criteria using CAPFITOGEN 2.0 tools (Parra-Quijano *et al.*, 2016). With the "ELCmapas" tool, the previously selected variables of those taxa, were used to determine the number of environmental conditions (ELC categories or zones) per taxon, with a maximum of three groups per variable component (bioclimatic, edaphic and geophysical) and using the method "elbow" and layers with a grid cell size of 2.5 arc-min (approx. 5 x 5 Km at the Equator).

3.3.4 *Ex situ* diversity analysis

The diversity analyses were conducted according to Maxted *et al.* (2008a), Scheldeman and Zonneveld (2010) and Parra-Quijano *et al.* (2016) in which gaps of *in situ* and *ex situ* conservation were identified at taxon and ecogeographic levels. A map showing areas of taxon richness was created based on the potential distribution maps. A second map showing areas of current *ex situ* collections was created and subtracted from the taxon richness map to reveal the gaps in current germplasm collections and identify future priority areas for *ex situ* collection. The maps were created in DIVA-GIS 7.5 and ArcMap 10.0 using a grid size of 0.125 degrees (approx. 15 x 15 Km). To assess the representativeness of the ecogeographic diversity in current *ex situ* conservation, the resulting ELC map and the presence points were used as the input for the "Representa" tool to identify the level of representativeness of the ELC zones in the *ex situ* collections (Parra-Quijano *et al.*, 2016). To assign the level of representativeness, the frequencies of the species in each zone of the ELC maps were grouped into quartiles: <0.25 (low), 0.25-0.5 (mid-low), 0.5-0.75 (mid-high), and >0.75 (high). Null is assigned to zones where the species do not occur (Parra-Quijano *et al.*, 2016). The maps were processed in DIVA-GIS 7.5 and ArcMap 10.0 with a grid cell size of 2.5 arc-min (approx. 5 x 5 Km at the Equator).

3.3.5 *In situ* diversity analysis

A complementarity analysis was used to identify potential priority sites for *in situ* conservation of CWR using DIVA-GIS 7.5 (Hijmans *et al.*, 2012, www.diva-gis.org/) and ArcMap 10.0 (ESRI, 2011). Potential genetic reserve sites were designated according to their importance for the conservation of the CWR diversity, using the "Reserve selection" tool in DIVA-GIS 7.5. Thus, the first priority site contains the highest number of taxa, the second priority site contains the next highest number of taxa not contained in the first site, and so on. The grid cell size was 0.125 degrees (approx. 15 x 15 Km). The maps of PA of the country were obtained from CONABIO (2017) (www.conabio.gob.mx/informacion/gis/), then overlapped to identify the extent to which the CWR diversity is under current passive or active *in situ* conservation and to identify further *in situ* conservation actions. CWR passively conserved *in situ* means that they are predicted present in existing PA but not under any active management, such as population monitoring, contrary to those under active *in situ* conservation (Maxted *et al.*, 1997b). Further analysis was conducted using ELC maps to determine the level of ecogeographic diversity that is at least passively conserved *in situ*. The Mexican PA (CONABIO (2017) were overlapped to the ELC maps previously created to compare the representativeness of the ELC zones in the PA networks. Similarly to the “Representa” tool of CAPFITOGEN (Parra-Quijano *et al.*, 2016), the frequencies of the PA in each zone of the ELC maps were grouped into quartiles to assign the level of representativeness: <0.25 (low), 0.25-0.5 (mid-low), 0.5-0.75 (mid-high), and >0.75 (high). Null is assigned to zones where the species do not occur (Parra-Quijano *et al.*, 2016). The maps were processed in DIVA-GIS 7.5 and ArcMap 10.0 with a grid cell size of 2.5 arc-min (approx. 5 x 5 Km).

3.4 RESULTS

3.4.1 *Ex situ* gap analysis

A total of 44,448 unique presence points in Mexico for 308 priority CWR taxa were used for the analyses (Supplementary Table 3.3). *Stenocereus thurberi* (Engelm.) Buxb. subsp. *littoralis* (K. Brandegee) N. P. Taylor and *S. thurberi* (Engelm.) Buxb. subsp. *thurberi*, wild relatives of pitaya, were excluded from the analyses due to the lack of accurate occurrence records. A total of 224 SDM were used meeting the validation conditions; for the remaining 84 taxa, the CA_{50} area was used (Supplemental Table 3.4). The number of environmental variables used for the analyses ranged from 8 to 31 among the taxa (Supplementary Table 3.5). The ELC maps defined from 19 to 27 different ELC zones for 224 priority taxa, based on the selected variables (Supplementary Table 3.6).

About 53% (162) of the taxa have *ex situ* accessions, of these about 68% (110) have accessions from at least five different populations (Supplementary Table 3.3), the minimum populations recommended for a representative *ex situ* collection, ensuring the genetic diversity is represented (Brown and Briggs, 1991). Wild *Phaseolus vulgaris* L. is the species with the highest number of accessions, a widely distributed taxon. About 64% of the taxa (198) are underrepresented *ex situ* with less than five populations (Supplementary Table 3.3). The areas of highest taxon richness correspond to the areas of highest number of potential hotspots for further collecting, located in Central and Southern Mexico (Figure 3.1a and b), mainly along the mountain ranges of the Trans-Mexican Volcanic Belt, Sierra Madre del Sur, Sierra Madre de Chiapas and the southern portion of the Sierra Madre Oriental. In these areas, up to 167 CWR taxa are predicted to be present and up to 164 can potentially be collected.

Most of the ELC zones are underrepresented in *ex situ* collections for most taxa (Figure 3.2a). On average, 54% of the taxa have no represented ELC zones *ex situ*, 15% have low represented, 9% have mid-low represented, 11% have mid-high represented and an additional 11% are highly represented *ex situ* (Supplementary Table 3.6). *Agave fourcroydes* Lem., *Salvia columbariae* Benth., *Sechium hintonii* (Paul G. Wilson) C. Jeffrey, *Stenocereus fricii* Sánchez-Mej., *Tripsacum maizar* Hern.-Xol. & Randolph and *Zea diploperennis* Iltis, Doebley & R. Guzman have accessions from less than five ELC zones (Supplementary Table 3.6).

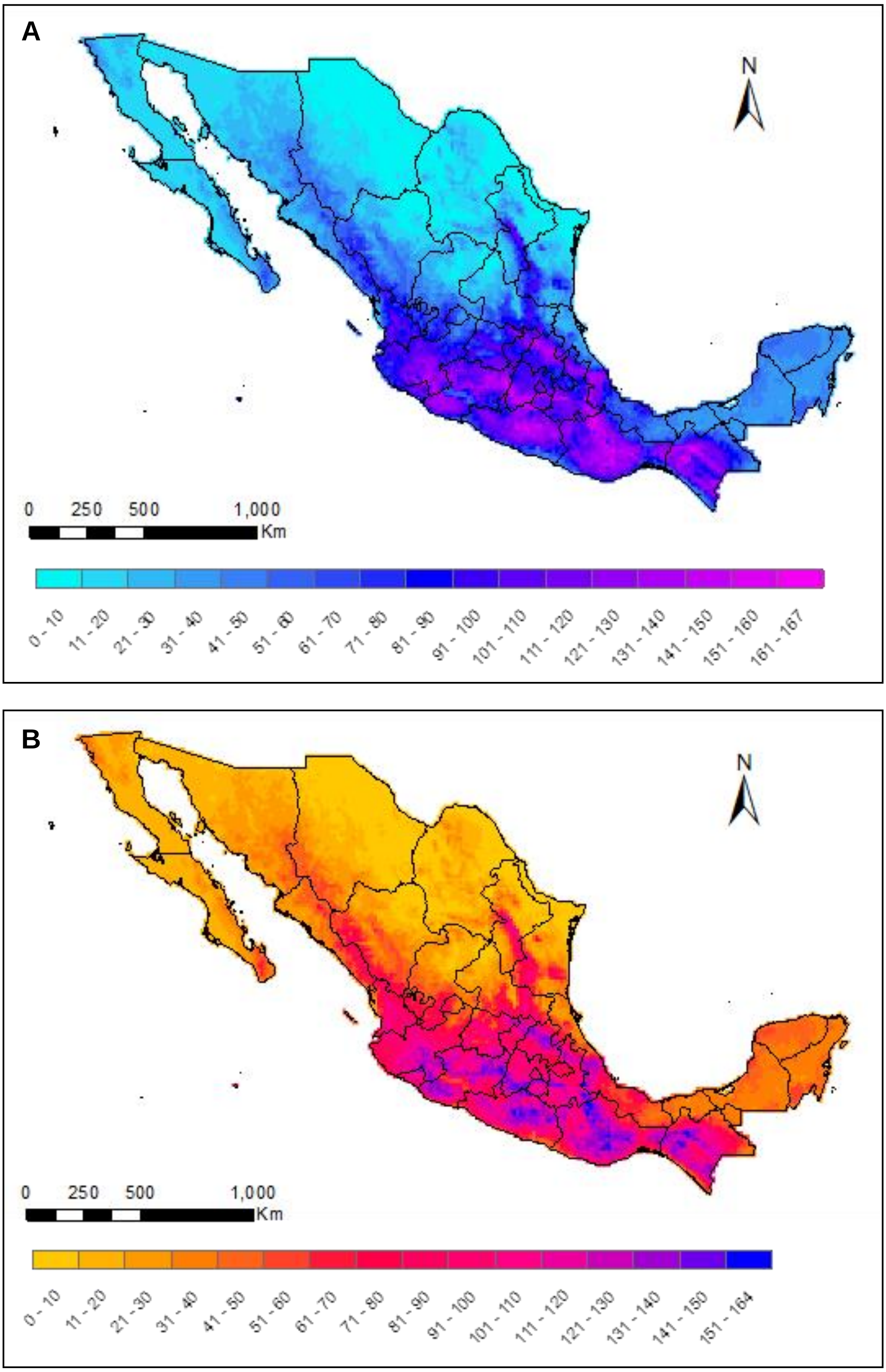

Figure 3.1. Taxon richness (A) and potential hotspots (B) for further collecting of priority CWR in Mexico. Map based on species distribution models. Grid square size is 0.125 degrees (approx. 15 x 15 Km). Geographic coordinate system is WCS 1984.

3.4.2 *In situ* gap analysis

The potential distribution of the 308 priority CWR taxa showed that the highest diversity is found in Central and Southern Mexico, along the main mountain ranges in the states of Jalisco, Michoacán, Guerrero, Oaxaca, Chiapas, Veracruz, State of Mexico, Morelos, Hidalgo and Puebla (Figure 3.1a), where up to 167 CWR taxa are present. By contrast, the area of North-central Mexico has the lowest number of taxa. There are 275 taxa (89%) occurring in at least one PA, 175 (57%) of which are present in more than five PA. The remaining 133 taxa (43%) have less than five populations from different PA, the minimum suggested by Dulloo *et al*. (2008) for *in situ* conservation in PA. The PA with the highest number of priority CWR taxa are the Cuenca Alimentadora del Distrito Nacional de Riego 043 (CADNR 043), in the states of Zacatecas, Durango, Jalisco, Nayarit and Aguascalientes, with 87 taxa; The Sierra Gorda Biosphere Reserve in the states of Querétaro, Guanajuato, San Luis Potosí and Hidalgo, with 71 taxa, and the Tehuacán-Cuicatlán Biosphere Reserve in the states of Puebla and Oaxaca, with 67 taxa (Supplementary Table 3.7). These PA cover a relatively large area, thus high number of CWR can be found within. However, a relatively small proportion of CWR per hectare can be found (0.0000374, 0.0001851 and 0.0001367, respectively) compared to other PA covering small area, for example, in the ecological park Cerro Macuiltépetl in Veracruz, where there is a relative richness of 97 CWR per hectare (Supplementary Table 3.7).

The complementarity analysis showed that 67 potential reserve sites with a grid square size of 15 x 15 Km are required to conserve all 308 priority taxa (Figure 3.2). The grid squares are distributed all over the country, predominantly in the north west, north east, central and south. The top ten grid squares conserve 60% of the diversity (184 taxa) (Table 3.2). The first grid square conserves 19% of the taxon richness (60 taxa), and is located in

Oaxaca, south of Mexico. The second grid square is located in Michoacán, central Mexico, conserving 14% (44) of the taxa, 25 of which are taxa not conserved in the first grid square. The third grid square, located in Chiapas, south of the country, contains 15% (46) of the taxa, 21 of which are not contained in the second or first squares. *Phaseolus vulgaris* is the taxa that occurs in the highest number of grid squares (34). 24% of the taxa (74) occur in five or more grid squares (Supplementary Table 3.8). Forty-six priority grid squares were located in at least one PA (Table 3.3).

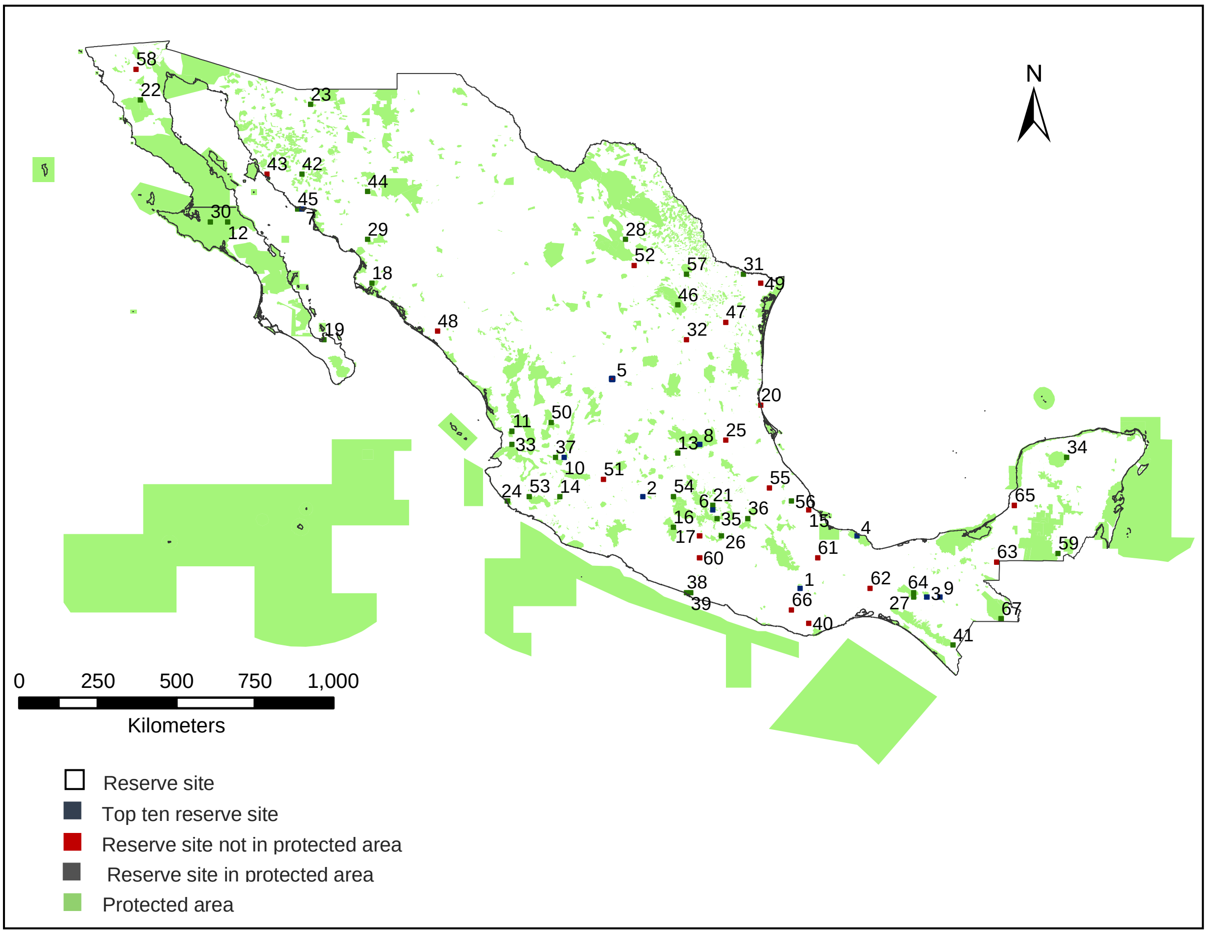

Figure 3.2. Complementarity analysis showing the potential sites for the establishment of genetic reserves of priority CWR in Mexico. Numbers are the conservation priority order of the sites. Grid square size is 0.125 degrees (approx. 15 x 15 Km). Geographic coordinate system is WCS 1984.

Table 3.2. Complementarity analysis of priority Mexican CWR taxa. Grid square size of each priority site is 0.125 degrees (approx. 15 x 15 Km).

Priority site[1]	Taxon richness[2]	Additional taxa[3]	Proportion[4]	Cummulative[5]
1	60	60	19%	19%
2	44	25	8%	28%
3	46	21	7%	34%
4	32	16	5%	40%
5	36	14	5%	44%
6	42	12	4%	48%
7	21	10	3%	51%
8	30	10	3%	55%
9	39	9	3%	57%
10	27	7	2%	60%

1: Sequence of priority grids for conservation; 2: Richness (taxon diversity); 3: New taxa contained in each additional grid; 4: Proportion of the diversity conserved by each grid; 5: Cumulative proportion of the diversity conserved by each additional grid.

In general, there is a low representativeness of the ELC zones within the national PA network (Supplementary Table 3.9). An average of 1% of the taxa have ELC zones not represented in any PA; 96% of the taxa are low represented in PA; for 3% of the taxa, the ELC zones are mid-low represented; and none of the taxa have ELC zones mid-high or high representation in PA. (Supplementary Table 3.9).

Table 3.3. Reserve sites for the *in situ* conservation of priority CWR in Mexico that occur in protected areas.

Reserve site	Protected Area
1	Cerro del Fortín (SP), El Fortín, Cruz Blanca y Cerro del Crestón (EPZ)
2	Cerro Punhuato (SP), Ex-Escuela Central Agrícola de La Huerta (ZSEC), Loma de Santa María y depresiones aledañas (ERPZ), Parque Francisco Zarco (UP)
3*	Cañón del Sumidero (NP), El Zapotal (REC), Parque Nacional Cañón del Sumidero (Ramsar)
4*	Los Tuxtlas (BR), Manglares y humedales de la Laguna de Sontecomapan (RAM), Perla de San Martín (UMA), Los Tucanes de Los Tuxtlas (UMA)
6*	Fuentes Brotantes de Tlalpan (NP) , Lomas de Padierna (NP), Bosque de Tlalpan (ECZ), Ecoguardas (EPZ), Ejidos de Xochimilco y San Gregorio Atlapulco (ZSEC), Parque Ecológico de la Ciudad de México (ZSEC), San Nicolás Totolapan (CER), Sistema Lacustre Ejidos de Xochimilco y San Gregorio Atlapulco (RAM)
7	Islas del Golfo de California (FFPA), El Soldado (ZSEC), Estero El Soldado (RAM)
8	Sierra Gorda (BR)
9*	Huitepec-Los Alcanfores (ZSEC), Humedales de Montaña La Kisst (ZSEC), Humedales de Montaña La Kisst (RAM)
10*	Barranca del Río Santiago (MHPA), Bosque El Nixticuil-San Esteban-El Diente (MHPA)
11*	Sierra de San Juan (SBR)
12	El Vizcaíno (BR)
13*	Pinal del Zamorano (CR)
14*	Volcán Nevado de Colima (NP), Bosque Mesófilo Nevado de Colima (SP)
16	Sierra de Nanchititla (NP), Zona de Recursos Naturales Río Grande-San Pedro (ZSEC)
18	Sinalopato (UMA), Choacahui (UMA)
19	Humedales El Mogote - Ensenada de La Paz (RAM)
21*	El Histórico Coyoacán (NP), Barranca Tecamachalco (ZSEC), Barrancas del Huizachal, del Arroyo Santa Cruz y del Arroyo Plan de la Zanja (ZSEC), Barrancas Río La Pastora, Río de la Loma y Río San Joaquín (ZSEC), Bosques de las Lomas (ZSEC), Tercera Sección del Bosque de Chapultepec (UF)
22*	Sierra de San Pedro Mártir (NP), Ejido Bramadero (UMA)
23	Oro Negro (UMA)
24*	Chamela-Cuixmala (BR) , Islas La Pajarera, Cocinas, Mamut, Colorada, San Pedro, San Agustín, San Andrés y Negrita y los Islotes Los Anegados, Novillas, Mosca y Submarino (S), Reserva de la Biosfera Chamela-Cuixmala (RAM)
26	Sierra de Huautla (BR), Cinegetico Quilamula (UMA), Cinegetico El Metate (UMA), Ejido San Juan Chinameca (UMA)
27*	Selva El Ocote (BR), Cerro Meyapac (ZSEC)
28*	C.A.D.N.R. 004 Don Martín (NRPA)
29*	Sierra de Álamos-Río Cuchujaqui (FFPA), Reserva Cinegetica Tres Marías, S. A de C. V. (UMA)
30	El Vizcaíno (BR)
31	Laguna la Escondida (UP)

Table 3.3. (continued)

Reserve site	Protected Area
33*	C.A.D.N.R. 043 Estado de Nayarit (NRPA)
34*	Reserva Estatal Geohidrológica Anillo de Cenotes (SR), Anillo de Cenotes (Ramsar)
35*	Corredor Biológico Chichinautzin (FFPA) , El Tepozteco (NP)
36	Humedal de Valsequillo (SP), Presa Manuel Ávila Camacho (Presa Valsequillo) (RAM)
37	La Primavera (FFPA)
38*	El Veladero (NP)
39*	El Veladero (NP)
41*	Cordón Pico El Loro-Paxtal (ZSEC)
42*	Los Chinos (UMA), Santa Cruz (UMA)
44	Ejido Yecora (UMA)
45	Islas del Golfo de California (FFPA)
46	C.A.D.N.R. 026 Bajo Río San Juan (NRPA) , Cumbres de Monterrey (NP)
50	C.A.D.N.R. 043 Estado de Nayarit (NRPA)
53*	Sierra de Manantlán (BR)
54*	Mariposa Monarca (BR)
56	Calle Barragán (GARER), Cerro de la Galaxia (EPZ), Cerro Macuiltépetl (EP), El Tejar Garnica (EPZ), La Martinica (ER), Molino de San Roque (SP), Parque Francisco Javier Clavijero (EP)
57*	Sierra Picachos (ZSEC), La Mesa (UMA)
59*	Calakmul (BR)
64*	Selva El Ocote (BR), La Pera (ZSEC), Laguna Bélgica (ZSEC)
67*	Montes Azules (BR)

BR, Biosphere Reserve; CER, Communitarian Ecological Reserve; CR, Conservation Reserve; ECZ, Ecological and Cultural Zone; EP, Ecological Park; EPZ, Ecological Conservation Area; ER, Ecological Reserve; ERPZ, Environmental Restauration and Protection Zone; FFPA, Flora and Fauna Protection Area; GARER, Green Area Reserved for Ecological Recreation and Education; MHPA, Municipal Hydrological Protection Area; NP, Natural Park; NRPA, Natural Resources Protection Area; RAM, Ramsar site; REC, Recreational Ecological Centre; S, Sanctuary; SBR, State Biosphere Reserve; SP, State Park; SR, State Reserve; UF, Urban Forest; UMA, UMA; UP, Ecological Urban Park; UP, Urban Park; ZSEC, Zone Subject to Ecological Conservation. *Overlaps with a Terrestrial Priority Site for Biodiversity Conservation (CONABIO, CONANP, TNC, and Pronatura 2007).

3.5 DISCUSSION

3.5.1 *Ex situ* gap analysis

Additional collections are required for those taxa underrepresented *ex situ*. Hotspots for future collection have been identified and in many cases large number of taxa could be collected in a limited number of missions to Central and Southern Mexico (*i.e.* Trans-Mexican Volcanic Belt, Sierra Madre del Sur, Sierra Madre de Chiapas and the southern portion of the Sierra Madre Oriental). Those taxa with accessions from less than five populations should also be considered as priority for collection to ensure that a representative sample of the genetic diversity range in the country is conserved. A minimum of five populations was suggested by Brown and Briggs (1991) and it was further recommended by Fielder *et al.* (2015) and Phillips *et al*. (2016) for the *ex situ* conservation of CWR in England and Norway, respectively. Fresh collections should also take into account the different ecogeographic conditions (ELC zones) in which they occur, focusing on collecting ELC zones with null or low representation in *ex situ* and by collecting populations from a at least five different ELC zones, the conservation of the full range of environmental adaptation scenarios for the CWR taxa is likely to be guaranteed (Brown and Briggs, 1991; Phillips *et al*., 2016). The effectiveness of this ecogeographic approach to estimate the representativeness of the *ex situ* collections has been previously evaluated by Parra-Quijano *et al*. (2008; 2012a, b) and implemented by Rubio Teso *et al*. (2013). They suggested that by sampling populations from the full ecogeographic range, a genetically diverse collection can be achieved. However, Phillips *et al*. (2016), suggested a minimum target of five population from across the ecogeographic range (ECL zones), in agreement with the recommendation of Brown and Briggs (1991).

3.5.2 *In situ* gap analysis

The geographical distribution of flowering plant richness in Mexico has been shown in various studies (Rzedowski 1991; Villaseñor 2003; Villaseñor and Ortiz 2014). The states with the highest number of taxa identified by Villaseñor and Ortiz (2014) are Jalisco, Michoacán, Guerrero, Oaxaca, Chiapas and Veracruz, which also contain the highest number of endemic species both to each state and to Mexico. These states are likewise among those with the highest presence of priority CWR taxa identified in the present study. Villaseñor and Ortiz (2014) found the highest species richness occurs in temperate forests associated with mountain regions. Similarly, the highest diversity of CWR taxa is distributed along the central and southern mountain ranges. The xerophytic shrubland is the area with the second highest diversity of flowering plants and is located in mostly the northern half of the country, and down to the states of Hidalgo, Mexico State, Puebla and Oaxaca (Villaseñor and Ortiz 2014), where also a high number of CWR taxa were identified.

The existing national PA network conserves a substantial proportion of Mexican CWR taxa, although their *in situ* conservation is mostly passive. Notably the Sierra de Manantlán Biosphere Reserve is an outstanding conservation area designated in 1987 to originally to actively conserve *in situ* populations of *Zea diploperennis*, and *Z. mays* subsp. *parviglumis* as an additional target, both wild relatives of maize (UNESCO 2011). For the 43% of the taxa occurring in less than five PA, further surveying can be conducted to locate additional populations within the PA network and meet the minimum recommended by Dulloo *et al*. 2008) for *in situ* conservation of CWR. The active *in situ* conservation of the taxa not conserved in any PA (11%) must be considered a priority either by extending the PA network or implementing extra-PA *in situ* conservation action in collaboration with land managers (Maxted and Kell 2009). However, even among existing PA not all have effective mechanisms in conserving biodiversity and appropriate revision of management plans and its implementation may be necessary (Sánchez-Cordero *et al.*, 2011). The PA with the highest number of priority CWR taxa are also amongst the largest in the national PA network (Supplementary Table 3.7). These large PA are generally designed to conserve a more diverse ecogeographic environments, species composition or populations, however, they contain a relatively small proportion of CWR per unit area. Several smaller reserves located in different environments can be a more practical alternative to maximize the conservation of target species diversity within a reserve (Dulloo *et al*., 2008).

There is a relatively high number of complementarity reserve sites (67) identified in this study for the conservation of the full range of species diversity of priority CWR in Mexico, but as indicated by in the UK (Fielder *et al.*, 2015) and Norway (Phillips *et al.*, 2016) the additional value of lower order sites decreases substantially so initial *in situ* activity might be focused in the top 10 identified localities that contain 60% of the diversity (184 taxa), 9 of which are located in at least one PA. Here management plans could be adapted to ensure that the inclusion of active CWR taxa and population enhancement which does not conflict with the original purpose with which the PA was designated (Maxted and Kell 2009). A genetic reserve network for the *in situ* conservation of CWR can be created for the 46 priority reserve sites that intersect with PA, as the requirements for their establishment and management would be minimal within the current PA network to effectively conserve the CWR diversity and they can provide additional benefit to local people (Maxted *et al.*, 2008b; Maxted and Kell, 2009). This approach has been applied in other countries for the identification of potential CWR genetic reserves within the national PA networks, *e.g*. Finland (Fitzgerald *et al*., 2013), Spain (Rubio *et al*., 2013), Cyprus (Phillips *et al*., 2014), England (Fielder *et al*., 2015), Jordan (Magos Brehm *et al*., 2016), Norway (Phillips *et al*., 2016). Additionally, Iriondo *et al*. (2008; 2012) suggested a number of methodologies and quality standards that can be applied for the establishment of these genetic reserves and ensure an adequate long term *in situ* conservation of priority CWR. The ELC zones are not reflected well within the existing PA network, therefore *in situ* complementary conservation measures outside PA will need to be implemented to ensure the full range of ecogeographic diversity is preserved (Maxted and Kell, 2009; Maxted *et al.*, 2015).

When comparing the reserve sites identified in the present work with the Terrestrial Priority Sites for Conservation of Biodiversity network (TPSCB) (CONABIO, CONANP, TNC and Pronatura 2007), certain degree of agreement can be observed. About 63% of the reserve sites (Supplementary Figure 3.1) correspond with at least one TPSCB, and of these, 64% overlap with at least one PA and a reserve site (Table 3.3). Thus, the implementation of active *in situ* CWR conservation measures would also benefit the conservation of larger biodiversity communities in Mexico. Moreover, these results should also be integrated to other current conservation strategies that are being developed for specific crop genepools.

3.5.3 Recommendations for CWR conservation in Mexico

Derived from the results of the present study, the following recommendation for the *in situ* and *ex situ* conservation of priority CWR in Mexico are proposed:

1. Link the 46 reserve sites overlapping PA (Table 3.3) to establish a Mexican CWR genetic reserve network for active *in situ* conservation action, including management and monitoring of CWR populations, following the quality standards of genetic reserves for the conservation of CWR (Iriondo *et al*., 2012).
2. For those priority CWR found in existing PA shown to be a priority for CWR *in situ* conservation (see Supplementary Table 3.8), the management plans should be revised

to ensure active conservation action to sustain and monitor CWR populations. For the taxa with less than five populations in PA, further surveying is recommended to locate additional populations within the PA network.

3. Conservation actions should be enhanced outside PA to ensure the protection of relevant CWR populations not associated with current PA, *i.e*. 21 priority *in situ* sites indicated in Figure 3.2, to encourage sustainable utilization of natural resources as an economic activity for land owners.
4. Creation of a few new PA for priority CWR populations found outside current PA, *e.g*. site 5 which could conserve up to 5% of the total priority CWR diversity (36 taxa, 14 of which are not present in any other reserve site). Moreover, the edges of existing PA should be assessed to ensure the PA maximises CWR conservation.
5. The 198 taxa with less than five populations conserved *ex situ* should be targeted for priority *ex situ* conservation, starting collection in the areas identified in Figure 3.1b as containing highest collection priority.
6. The ELC analyses presented in Supplementary Tables 3.6 and 3.9 can be used to ensure the genetic diversity already conserved represents at least five ELC zones, particularly for taxa with low or non-represented ELC zones both *ex situ* and *in situ*.
7. Accessions should be regenerated and duplicated in national and regional gene banks with capacity to ensure their long-term conservation, *e.g.* the National Genetic Resources Centre of INIFAP in Mexico, and relevant backups of taxa related to globally important crops must be send to other international gene banks, *e.g.* the Svalbard Global Seed Vault.
8. The results presented should be reviewed periodically and novel *in situ* and *ex situ* conservation actions updated accordingly. For instance, genetic analysis should be

conducted for the priority CWR taxa to further assess and ensure their genetic diversity conservation is maximised.

3.6 CONCLUSIONS

In this chapter, priorities for complementary *in situ* and *ex situ* conservation of 308 CWR taxa were identified for Mexico. Of those, 110 were priorities for further field surveying and *ex situ* collection to ensure genetic diversity representation. The establishment of genetic reserves in at least the top ten reserve sites will ensure the conservation of 60% of the CWR diversity. By including the management and monitoring of CWR in existing PA the investment for their conservation can be optimized. Conservation actions outside PA might also be considered, particularly for those taxa with ELC zones found in less than five PA. Incorporating the evaluation of ecogeographic information of the CWR contribute to improve the representativeness of the genetic diversity in both *in situ* and *ex situ* conservation efforts in Mexico. The proposed recommendations for the active long-term conservation of priority Mexican CWR will underpin maximum genetic diversity maintenance, its continuing availability for breeders and Mexican food security. These actions will help feed the growing population of Mexico and minimize the deleterious impacts of climate change and other threats facing Mexican agro- and biodiversity.

CHAPTER 4

IMPACTS OF CLIMATE CHANGE ON CROP WILD RELATIVES IN MEXICO

4.1 ABSTRACT

Crop wild relatives (CWR) are important genetic resources for crop improvement due to their intrinsic genetic variation, being potential gene donors to the crops. Mexico is a well-known center of agrobiodiversity, comprising crops and their CWR. However, climate change, among other factors, is an influential factor to the loss of significant Mexican CWR diversity. The impacts of climate change on the distribution patterns and diversity of Mexican priority CWR were assessed as part of a national CWR conservation strategy for Mexico. An ensemble of four General Circulation Models (CNRM-CM5 ,GFDL-CM3, HadGEM2-ES and MPI-ESM-LR) were evaluated for a set of 225 priority CWR taxa, for two emission scenarios (RCP4.5 and RCP8.5) and two periods of time 2041-2060 and 2061-2080. Environmental niche modelling using MaxEnt and GIS tools (DIVA-GIS 7.5 and ArcMap 10.0) were used to detect changes in the patterns of current potential species distributions due to climate change and to analyze the implications for their conservation. Wild relatives of national and global important crops, such as agave, amaranth and maize, are amongst the most negatively impacted, with a predicted reduction in their geographic range by 25.4%, 21.6% and 24.1%, respectively. Overall, 44 CWR taxa are predicted to become threatened by climate change. Taxon richness areas seem to be contracting along the central-south main mountain ranges, while changes in the species composition of plant communities reached 100% in northern areas. Complementary *in situ* and *ex situ* conservation of CWR that are predicted to be more vulnerable to climate change are suggested. These results will help to improve the long-term conservation strategies of important CWR diversity anticipating the impacts of climate change and enhancing national food security.

Keywords: Crop wild relatives, Climate Change, CWR Conservation, Food Security

4.2 INTRODUCTION

Climate change is predicted to have direct impacts on agrobiodiversity (Jarvis *et al*., 2008; 2010; Wheeler and von Braun, 2013; IPCC, 2014; Rosenzweig *et al*., 2014). Overall, globally climate change is expected to have negative impacts on crop productivity, such as reduction of the number of optimal growing days, variation in temperature, droughts and other extreme events (Kang *et al.*, 2009; Li *et al*., 2009; Elad and Ilaria, 2014; Hatfield and Prueger, 2015; Mora *et al*., 2015; Das *et al*., 2016). Mora *et al*. (2015) estimated a global decline in the number of suitable growing days will actually decrease by up to 11% due to changes in temperature, water availability, and solar radiation. Moreover, losses of up to 200 suitable growing days per year are predicted in tropical regions, which will affect global food security, particularly for the most vulnerable populations in developing and underdeveloped countries (Mora *et al*., 2015). With the intensification of frequency and severity of drought events, yields of major crops are predicted to decrease by 50% in 2050, to 90% by the end of the century (Li *et al*., 2009). Variation in temperature affects host susceptibility and survival, dispersal, penetration, development and reproduction rate for many plant pathogens (Elad *et al*., 2014; Das *et al*., 2016). Under these conditions, crops are also likely to become more vulnerable to fungal, bacterial and viral diseases (Das *et al*., 2016). Exposure to elevated atmospheric CO_2 levels can affect interactions between crop plants and insects and may reduce productivity by increased susceptibility to invasive crop pests (Zavala *et al*., 2008). Some studies suggest that crop yield will reduce by up to 2% per decade from 2030 onwards, with higher impacts towards the mid-century (Porter *et al*., 2014). Studies in maize, one of the most important cereals globally, is predicted to reduce yield by 25% to 50% due to climate change by the end of this century (Yin *et al*., 2015; Xu *et al*., 2016).

There is an evident need to develop strategies to increase adaptation of crops to climate change. Crop wild relatives (CWR) are wild plants closely related to cultivated species that are able to cross with the crop using natural or artificial technologies (Harlan and de Wet, 1971; Maxted *et al*., 2006). They have intrinsic value for crop improvement because they possess much wider genetic variation than crops which are often bred for uniformity (Tanksley and McCouch, 1997; Vollbrecht and Sigmon, 2005; Maxted *et al*., 2006). These genetic resources can potentially confer genes for among other benefits: resistance or tolerance to plant pests and diseases, improving productivity and quality traits or gaining adaptability to climate change (Maxted and Kell, 2009; Ford-Lloyd *et al*., 2011). Even though CWR represent a source of genetic diversity to mitigate climate changes impact on crops, its effects may also have an impact in the genetic diversity, geographic distribution and survival of CWR themselves (Jarvis *et al*., 2008; Lira *et al*., 2009; Aguirre-Gutiérrez *et al*., 2017; Phillips *et al*., 2017). In a study on the effects of climate change on wild relatives of peanut (*Arachis* spp.), potato (*Solanum* spp.) and cowpea (*Vigna* spp.), Jarvis *et al*. (2008) estimated reductions of their suitable natural range of 80–100% for their CWR species by 2050, and the extinction of 16–22% species. Negative consequences were also predicted for CWR in Europe with losses of up to 69–98% in distribution area of eight species (Aguirre-Gutiérrez *et al*., 2017). CWR in Norway were also expected to change their distribution patterns, reducing drastically their natural ranges and 31 of them becoming at risk of extinction (Philllips *et al*., 2017).

Mexico is highly susceptible to climate change (SEMARNAT-INECC, 2016). Rises in temperature of up to 5°C are expected in some parts of the country, particularly in northern Mexico, while precipitation is expected to decline by up to 30% in north-western areas under a pessimistic scenario (Met Office Hardley Center, 2011; SEMARNAT, 2014). It was already anticipated that altered climates are likely to have serious consequences for agriculture and ecosystems in Mexico (Liverman and O'Brien, 1991; Raupach *et al*., 2007). The Mexico's Climate Change Mid-Century Strategy (SEMARNAT-INECC, 2016) and the Mexican Strategy for Plant Conservation (2012–2030) (CONABIO, 2012) include, among their objectives, to improve the understanding of the impacts of climate change, vulnerability, and adaptation of ecosystems plant biodiversity, including crops and their wild relatives.

Changes in climate are likely to alter the composition of vegetation types in Mexico (Estrada-Contreras *et al*., 2015) and expected to change geographic patterns of CWR distribution (Lira *et al*., 2009; Ureta *et al*., 2012). Distribution patterns of eight *Cucurbitaceae* CWR under climate change was analyzed by Lira *et al.* (2009), who estimated reductions in the number of protected areas in which CWR could occur (29 out of the current 69 protected areas) and the potential extinction of one of the species. Ureta *et al*. (2011) also analyzed the changes in the geographic range of 15 maize CWR and predicted the possible extinction of two *Zea* and one *Tripsacum* species.

Vulnerability of species to climate change can be assessed through a correlative approach (Foden and Young, 2016) assuming that the geographic range is related to population size. The results of this approach can then be used together with the IUCN Red List Categories and Criteria (IUCN, 2012) to determine the risk of extinction due to climate change (Thuiller *et al*., 2005; Tejedor *et al*., 2015). These methods have been previously implemented to estimate the impacts of climate change on CWR (Aguirre-Gutiérrez *et al*., 2017; Phillips *et al*., 2017). Representation and maintenance of CWR in protected areas and genebanks are not guaranteed under changing climates (Dulloo *et al*., 2008; Lira *et al*., 2009; Aguirre-Gutiérrez *et al*., 2017; Magos Brehm *et al*., 2017; Philllips *et al*., 2017). Assessment of the impacts of climate change and vulnerability of CWR should be considered for the selection of priorities when developing conservation strategies (Dulloo *et al*., 2008; Foden and Young, 2016; Magos Brehm *et al*., 2017). In the present study, we use GIS tools to examine the impacts of four climate change scenarios on the potential distribution patterns of 310 priority Mexican CWR and the implication for their *in situ* and *ex situ* conservation as part of a national CWR conservation strategy for Mexico.

4.3 MATERIALS AND METHODS

4.3.1 CWR taxa and occurrence records

The 310 priority CWR taxa for Mexico, previously identified as part of the national CWR inventory for Mexico (Contreras-Toledo *et al*., in press) were analyzed (Supplementary Table 2.1 in Chapter 2). They belong to 27 families and 43 genera related to 40 crop gene pools, comprising fruits, vegetables, cereals and pseudo-cereals, legumes, tubers, nuts, forages, spice, industrial, and medicinal crops. Occurrence records for all CWR were gathered from national and international institutions, through genebank databases, research projects, and personal examination of herbaria specimens. Online digital databases included GENESYS, GBIF, GRIN and REMIB (Supplementary Table 3.1 in Chapter 3). The taxonomic nomenclature was then checked and aligned with GRIN Taxonomy (USDA–ARS–GRIN, 2017) and Tropicos nomenclature (Missouri Botanical Garden, 2017). Records lacking latitude and longitude, but with location information, were georeferenced to WGS (1984). The performance of species distribution models depends significantly on the precision of the records, so to maximize the accuracy of the coordinates, the Historic Archive of Geostatistical Localities of the National Institute of Geography and Statistics of Mexico (INEGI, 2017), the terrestrial vial infrastructure database of the Secretariat of Communications and Transportation (SCT, 2017) and GoogleEarth© were used. All coordinates were standardized to WGS (1984) decimal degrees to be used in GIS software. Finally, records with the same coordinates for the same taxa were removed from the dataset, so unique presence points were used in the analysis.

4.3.2 Current and future climate data

The current climate information was obtained from WorldClim database (www.worldclim.org). A set of 19 bioclimatic variables were used at a resolution of 30 arc-seconds (approx. 1 x 1 Km at the Equator) (Table 4.1). These variables were generated averaging climatic data from 1950-2000, from monthly precipitation, and monthly mean, minimum and maximum temperature (Hijmans *et al*., 2005). These bioclimatic variables emphasize annual tendencies, seasonality and extreme or restrictive environmental conditions (Hijmans *et al*., 2005).

Table 4.1. Bioclimatic variables used in the analysis of current and future climate projections (Hijmans *et al*., 2005, www.worldclim.org).

Code	Description	Unit
bio_1	Annual Mean Temperature	°C
bio_2	Mean Diurnal Temperature Range (max temp-min temp)	°C
bio_3	Isothermality ((bio_2/bio_7)*100)	
bio_4	Temperature Seasonality (SD*100)	
bio_5	Maximum Temperature of Warmest Month	°C
bio_6	Minimum Temperature of Coldest Month	°C
bio_7	Temperature Annual Range (bio_5-bio_6)	°C
bio_8	Mean Temperature of Wettest Quarter	°C
bio_9	Mean Temperature of Driest Quarter	°C
bio_10	Mean Temperature of Warmest Quarter	°C
bio_11	Mean Temperature of Coldest Quarter	°C
bio_12	Annual Precipitation	mm
bio_13	Precipitation of Wettest Month	mm
bio_14	Precipitation of Driest Month	mm
bio_15	Precipitation Seasonality (Coefficient of Variation)	mm
bio_16	Precipitation of Wettest Quarter	mm
bio_17	Precipitation of Driest Quarter	mm
bio_18	Precipitation of Warmest Quarter	mm
bio_19	Precipitation of Coldest Quarter	mm

For future climate conditions, an ensemble of four Global Circulation Models (GCM) was produced (Table 4.2). The GCM were developed by the Coupled Model Intercomparison Project Phase 5 (CMIP5) used in the Intergovernmental Panel on Climate Change - Fifth Assessment report (IPCC5) (Flato *et al.*, 2013) and included in a selection of models by the National Institute of Ecology and Climate Change of Mexico (INECC) (www.escenarios.inecc.gob.mx).

Table 4.2. General Circulation Models (GCM) from the CMIP5-IPCC5, used to create the ensembles to model the potential distribution of priority CWR in Mexico.

Model	Institute	Country
CNRM-CM5	Centre National de Recherches Météorologiques (CNRM-CERFACS)	France
GFDL-CM3	Geophysical Fluid Dynamics Laboratory (GFDL)	United States of America
HadGEM2-ES	Met Office Hadley Centre (MOHC)	United Kingdom
MPI-ESM-LR	Max Planck Institute for Meteorology (MPI-M)	Germany

The bioclimatic variables were obtained from the WorldClim database (www.worldclim.org) for the Representative Concentration Pathways (RCP) RCP4.5 and RCP 8.5, for a mid-term future period 2041-2060 (from here on 2050) and a long-term future period 2061-2080 (from here on 2070), thus representing four climate change conditions (Table 4.3). The RCP4.5 represents a moderate mitigation scenario that applies policies to reduce greenhouse gas emissions so the radiative forcing stabilizes at 4.5 W m^{-2} (approximately 650 ppm CO_2-equivalent) in the year 2100 (Moss *et al*., 2010; van Vuuren *et al*., 2011). In this scenario, it is assumed declines in global energy use and fossil fuel use, and increases in the use of renewable and nuclear energy sources. Reforestation is also a key element in this scenario as part of emissions mitigation policies, as well as having crop and grasslands converted to bioenergy crops (Thomsom *et al*., 2011). The RCP8.5 represents a high emissions scenario simulating a continuous global human population growth of up to 12 billion by the year 2100, with slow economic and technology development (Riahi *et al*., 2011). In this scenario without mitigation policies, the productivity of crop increases as food security is not guaranteed and the use of fossil fuels and electricity increase (Riahi *et al*., 2011). The radiative forcing of this scenario is stabilized at 8.5 W m−2 (approximately 1370 ppm CO2-equivalent) in the year 2100 (van Vuuren *et al*., 2011). The ensembles were created in ArcMap 10.0 (ESRI, 2011) using the median of the four GCM. The variables were used at a resolution of 30 arc-second (approx. 1 x 1 Km at the Equator).

Table 4.3. Possible climate change conditions used to evaluate the impacts of climate change on crop wild relatives in Mexico.

Climate change condition	**RCP**	**Time period**
Mid-future with and intermediate emissions scenario	RPC4.5	2041-2060 (2050)
Mid-future with a high emissions scenario	RPC8.5	2041-2060 (2050)
Distant-future with an intermediate emissions scenario	RPC4.5	2061-2080 (2070)
Distant-future with a high emissions scenario	RPC8.5	2061-2080 (2070)

4.3.3 Species Distribution Modelling

Maximum entropy modelling (MaxEnt) (Phillips *et al*., 2006) was used to create the species distribution models (SDM) of the CWR taxa. This method is an algorithm that uses presence only data and has been extensively implemented in conservation planning, biogeography, ecology, etc., due to its effectiveness to modelling environmental niches when projecting current and future climate data (Araújo *et al*., 2004; Elith *et al*., 2006, 2010; Wiens *et al*., 2009; Costa *et al*., 2010; Ramírez-Villegas *et al*., 2010; Castañeda-Álvarez *et al*., 2015; Khoury *et al*., 2015; Fielder *et al*., 2015; Phillips *et al*., 2016, 2017; Qin *et al*., 2017). SDM were created using bioclimatic variables representing each of the climate change conditions. Even though MaxEnt has been proven to have a strong performance when using small sample sizes (Elith *et al*., 2006; Hernandez *et al*., 2006; Pearson *et al*., 2007), in this study only those taxa with a minimum of ten occurrence records were analyzed, to avoid any tendencies of the algorithm to underperform, limiting the quality and utility of the model predictions (Wisz *et al*., 2008). The cross-validation method was used to train and test the models and estimate predictive performance (Elith *et al*., 2010), setting five-fold replicates for taxa with 10 to 50 occurrence records, and ten-fold replicates for taxa with more than 50 occurrence records. The maximum training sensitivity plus specificity threshold was then applied to the average models for each taxa (Liu *et al*., 2005).

To validate the performance of the models, three parameters were assessed: 1) average Area Under the Test ROC Curve (ATAUC), 2) the standard deviation of the ATAUC (STAUC) and 3) the proportion of potential distribution area with a STAUC larger than 0.15. For a model to be considered valid the following conditions had to be met: ATAUC>0.7, STAUC<0.15 and ASD15<10% (Ramírez-Villegas *et al*., 2010; Castañeda-Álvarez *et al*., 2015). Only those models that met the three conditions were used in the analysis.

4.3.4 Impacts of climate change

We analyzed the patterns of geographical distribution range and changes in the suitable areas for the taxa distribution under climate change. Future SDM maps of all the taxa were compared to current SDM maps, and percentage of area gains and losses were calculated. Two contrasting dispersal scenarios were analyzed here depending on the ability of the species to move and colonize new potential niches and between which limits the taxa are likely to occur (Peterson *et al*., 2002; Higgins, *et al*., 2003; Thomas *et al*., 2004). The unlimited migration scenario assumes that species are capable of disperse to areas becoming suitable in the future. The no-migration scenario restricts the species distribution movement to its current range, not being able to disperse to new suitable areas (Peterson *et al*., 2002; Higgins, *et al*., 2003; Thomas *et al*., 2004). For the no-migration scenario, the change in distribution area is represented by the percentage of loss, and for the unlimited migration scenario, the change in distribution area is represented by the proportion of gain and loss (Riordan *et al*., 2015).

We used the A3(c) criterion of IUCN Red List (IUCN, 2012) to assess the level of threat to CWR due to climate change (Thuiller *et al*., 2005; Tejedor *et al*., 2015; Phillips *et al*., 2017). The criterion is centered on the level of future reductions of the population (either projected, inferred or suspected). Reduction in potential distribution area (extent of occurrence) were used as an indicator of population declines, although they may not necessarily have a linear correlation (Huntley *et al*., 2016). The threat categories were defined as: a) Vulnerable (V) for taxa with predicted losses >30%, b) Endangered (EN) for taxa with predicted loss >50%, c) Critically Endangered (CR) for taxa with predicted loss >80%, and d) Extinct (EX) for taxa with predicted loss in suitable area of 100% (IUCN, 2012). The threat assessment was applied to all climate change scenarios under unlimited migration.

Maps representing taxon richness were created for the current and future climate scenarios under both dispersal scenarios and compared to analyze the changes in the overall diversity. The current richness maps were overlapped to each of the four future richness maps, showing areas of potential changes in overall diversity. Then, to estimate the turnover rate in the composition of CWR taxa, the total number of species gain and loss were compared to the total potential richness base on Langdon and Lawler (2015) and Peterson *et al*. (2015): $T= 100*(a+b)/(a+b+c)$, where $\boldsymbol{T}$ is the turnover rate, $\boldsymbol{a}$ is species gain, $\boldsymbol{b}$ is species loss and $\boldsymbol{c}$ is stable species. Gain was measured when a species was not present in the current scenario, but was present in the future. Loss was measured when a species was present in the current scenario, but was not present in the future. Stable species were taxa observed in both current and future scenarios. A turnover of 0% means that all species remain the same, while a turnover of 100% means that all species changed. Turnover rate was calculated on a grid-by-grid basis for the unlimited migration scenario for RCP4.5 and RCP8.5 in both years. Analyses were performed in R 3.1.2 (R Core Team, 2014), DIVA-GIS 7.5 (Hijmans *et al*., 2012, www.diva-gis.org/) and ArcMap 10.0 5 (ESRI, 2011). All maps were created using a grid size of 0.045 degrees (approx. 5 Km x 5 Km).

4.4 RESULTS

The validation analysis identified 225 suitable SDM of priority CWR taxa (73% of the 310 taxa in the inventory) using a total of 41,541 unique presence points (occurrences) (Supplementary Table 4.1). These SDM met the criteria for the current and future bioclimatic scenarios (Supplementary Table 4.2a, b, c, d and e). Forty-seven taxa did not met the minimum number of occurrences and 38 SDM did not meet the validation criteria for all climatic scenarios; these taxa were excluded from further analyses. The final included taxa belong to 25 botanic families, 40 genera, 210 species and 15 sub-specific taxa, representing 37 crop gene pools (Supplementary Table 4.1).

About 70% of the taxa had gains of less than 20% in all RCP and years, while the number of taxa that had larger losses increased from year 2050 to 2070 by approximately 7% for RCP4.5 and by approximately 10% for RCP8.5 (Figure 4.1a and b). Reductions in the suitable area are predicted for all crop gene pools considering a no-migration scenario with an average of 13.7% of loss for all RCP and time periods (Table 4.4). The crop gene pools with the highest losses overall are agave (25.4%), amaranth (21.6%), maize (24.1%), marigold (23.2%), physic nut (21.3%). As expected, the highest losses were projected for the distant-future (2070) with a high emissions scenario (RCP8.5), with an average of 15% for all crop gene pools. Wild relatives of maize showed the highest decreasing ranges of 31.7%, followed by physic nut (30.6%), agave (28.4%), marigold (26%) and cotton (25%). The mid-future (2050) with and intermediate emissions scenario (RCP4.5) showed the lowest average reductions (12.5%) across crop gene pools. Again, agave, maize, marigold and chili pepper are the most negatively impacted crops (23.2, 18.2, 26.6 and 18.8% of loss, respectively) (Table 4.4). Other crops that showed high losses under a no-migration scenario were guava (28.7%) and yellow mombin (26.4%) for RCP4.5 in year 2070. Wild relatives of pitahaya, blackbead and nance are the less negatively affected for all RCP and years, with average losses of 3.5%, 4.1% and 4.4% correspondingly (Table 4.4).

As the unlimited migration scenario allows species to colonize new suitable areas, there is more variation in the overall change in the distribution of CWR, and in this scenario taxa seem to be less negatively impacted. An overall positive change (expansion in suitable area) of 2.7 and 1.8% was predicted in the years 2050 and 2070 for RCP4.5, while 4.4 and 1.4 was predicted in the years 2050 and 2070 for RCP8.5. Once again, agave (12.1%), maize (9.7%) and marigold (15.7%) showed the higher reductions in distribution range, while chili pepper and purple mombin showed overall gains of 21.8 and 26.7% (Table 4.4).

It is important to notice the variation within each crop gene pool for both migration scenarios, as originally noted by Jarvis *et al.* (2008), due to some CWR taxa might be more or less impacted than others, either positively or negatively. Under no-migration scenario, wild relatives of agave and amaranth show variable reductions in suitable area (Figure 4.2 and Figure 4.3), particularly *Agave macroacantha* Zucc. and *Amaranthus caudatus* L. with major losses for RCP4.5 and RCP8.5 in both years, while *Agave macroculmis* Tod. and *Amaranthus fimbriatus* (Torr.) Benth. ex S. Watson are among the taxa with the minor losses within the same crop gene pools (Supplementary Table 4.3). In the case of the unlimited migration scenario, nearly 50% of the taxa show positive impacts in the average change in suitable area in all RCP and years (Figure 4.4 and Figure 4.5).

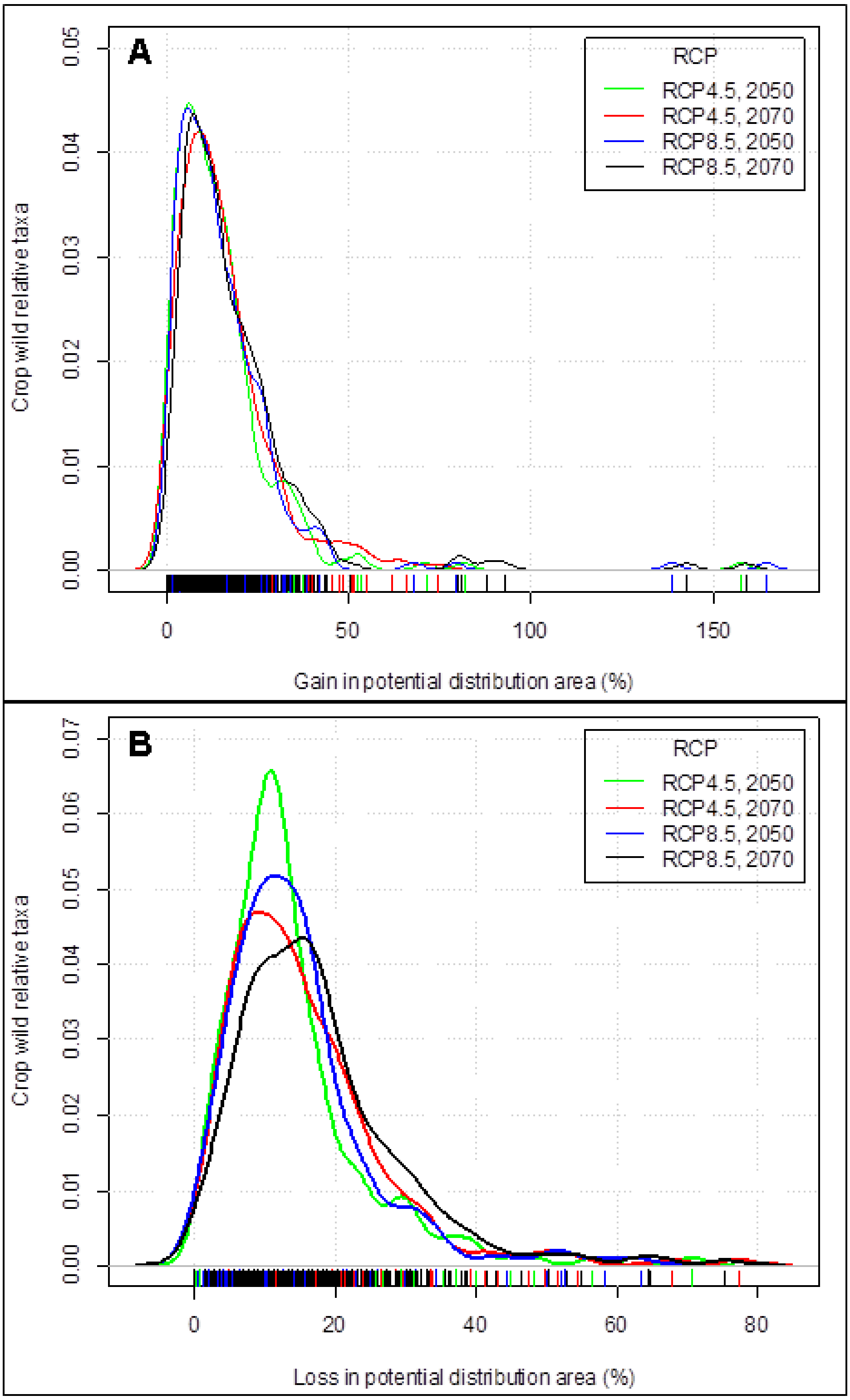

Figure 4.1. Percentage of gains (A) and losses (B) in the potential distribution area of Mexican CWR for RCP4.5 and RCP8.5 in the years 2041-2060 (2050) and 2061-2080 (2070).

Table 4.4. Impacts of climate change on the potential distribution areas of crop wild relatives for two emission scenarios (RCP4.5 and RCP8.5) for 2050 and 2070 under no-migration and unlimited migration scenarios.

Crop Gene Pool	No. of CWR	No-migration scenario					Unlimited migration scenario				
		RCP4.5		RCP8.5			RCP4.5		RCP8.5		
		Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change of all RCP	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change of all RCP
Agave	14	-23.14 (18.23)	-23.76 (21.48)	-26.32 (19.25)	-28.36 (21.06)	-25.42	-9.36 (26.84)	-7.49 (35.04)	-16.83 (24.25)	-14.55 (28.45)	-12.06
Amaranthus	12	-16.76 (14.46)	-22.85 (18.34)	-22.18 (17.19)	-24.77 (18.73)	-21.64	-1.04 (25.72)	-10.5 (26.33)	-10.56 (25.53)	-11.04 (28.28)	-8.28
Annatto	1	-16.72	-5.19	-3.72	-8.4	-8.51	-12.19	6.94	9.73	0.44	1.23
Annona	10	-14.8 (4.42)	-12.56 (7.62)	-14.1 (7.12)	-14.51 (7.3)	-13.99	-3.90 (7.06)	3.16 (12.41)	-1.27 (12.47)	1.99 (13.79)	0.00
Avocado	2	-7.06 (7.21)	-13.86 (2.08)	-13.09 (5.08)	-15.54 (2.17)	-12.39	9.38 (10.8)	-2.99 (12.24)	-3.43 (0.59)	-4.83 (3.9)	-0.47
Bean	12	-9.06 (6.35)	-12.23 (9.52)	-10.09 (5.06)	-15.39 (7.64)	-11.69	6.83 (15.63)	3.32 (19.26)	6.64 (20.14)	-1.85 (9.93)	3.73
Blackbead	1	-3.39	-4.05	-4.05	-4.74	-4.06	3.50	3.19	1.91	1.52	2.53
Cassava	15	-16.67 (10.3)	-13.91 (6.7)	-14.42 (7.62)	-12.75 (7.38)	-14.44	-6.95 (14.07)	2.97 (16.34)	0.86 (13.96)	17.67 (29.99)	3.64
Chayote	4	-8.63 (6.23)	-10.5 (7.99)	-9.69 (3.49)	-17.23 (10.17)	-11.51	27.46 (38.32)	20.75 (30.76)	21.95 (6.54)	8.34 (24.56)	19.63
Chia, sage	27	-9.78 (4.96)	-14.09 (7.96)	-13.09 (7.86)	-16.07 (8.92)	-13.26	10.32 (31.02)	2.06 (20.57)	3.61 (29.97)	2.57 (34)	4.64
Chili pepper	2	-18.83 (6.33)	-17.74 (5.49)	-7.3 (9.85)	-19.8 (10.91)	-15.92	-1.96 (6.18)	0.73 (3.32)	83.4 (114.4)	5.07 (11.28)	21.81
Cotton	5	-13.63 (6.11)	-11.73 (4.63)	-16.76 (3.8)	-25.09 (8.56)	-16.80	-2.94 (16.27)	1.84 (17.38)	-9.98 (8.90)	-18.34 (8.73)	-7.36
Goatnut	1	-3.8	-2.84	-10.35	-13.41	-7.60	6.49	11.3	-4.84	-7.87	1.26
Guava	3	-13.51 (3.92)	-28.67 (22.38)	-14.88 (0.09)	-18.57 (4.57)	-18.91	8.06 (15.87)	-17.17 (31.10)	9.22 (13.84)	7.45 (7.68)	1.89
Husk tomato	7	-12.56 (5.64)	-14.32 (7.79)	-13.21 (5.69)	-14.3 (8.99)	-13.60	-0.94 (5.56)	3.61 (12.56)	2.22 (13.83)	4.48 (7.89)	2.34
Lead tree	4	-14.04 (4.26)	-13.44 (4.5)	-15.17 (6.58)	-15.91 (7.42)	-14.64	-4.72 (8.26)	-2.05 (4.43)	-5.41 (5.57)	0.9 (20.69)	-2.82
Maize	8	-18.21 (12.69)	-25.06 (15.05)	-21.53 (13.66)	-31.67 (16.34)	-24.12	-4.16 (21.14)	-11.86 (22.30)	-4.02 (24.83)	-18.82 (24.28)	-9.71
Marigold	2	-26.6 (26.01)	-15.51 (6.27)	-24.72 (0.42)	-26.1 (14.31)	-23.23	-19.64 (35.07)	-4.83 (3.26)	-20.64 (2.65)	-17.59 (16.62)	-15.67
Marmalade-plum	5	-17.52 (7.35)	-15.23 (10.02)	-18.56 (9.99)	-14.81 (11.66)	-16.53	-9.37 (13.61)	1.2 (30.52)	-7.45 (26.09)	11.79 (45.23)	-0.95
Mexican hawthorn	1	-12.02	-7.08	-14.61	-8.81	-10.63	-6.25	10.69	-9.64	4.6	-0.15

Table 4.4. (continued)

Crop Gene Pool	No. of CWR	No-migration scenario					Unlimited migration scenario				
		RCP4.5		RCP8.5			RCP4.5		RCP8.5		
		Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change of all RCP	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change (SD) for 2050	Average % of change (SD) for 2070	Average % of change of all RCP
Nance	1	-2.63	-5.59	-4.09	-5.46	-4.44	7.30	0.96	4.91	3.37	4.13
Naseberry	2	-7.95 (0.86)	-10.77 (7.3)	-8.78 (1.58)	-10.71 (6.56)	-9.55	-0.60 (3.03)	-4.41 (9.23)	-1.57 (5.38)	-4.55 (7.39)	-2.78
Opuntia	8	-13.59 (7.6)	-12.05 (6.25)	-13.16 (4.53)	-15.69 (5.82)	-13.62	-0.48 (15.43)	5.03 (14.96)	0.42 (10.55)	1.79 (17.45)	1.69
Papaya	5	-15.07 (11.73)	-13.69 (6.96)	-12.66 (8.45)	-12.82 (7.05)	-13.56	-3-35 (18.02)	-3.51 (11.25)	-0.8 (14.99)	4.26 (15.77)	-0.85
Pecan	3	-7.47 (3.45)	-12.59 (5.68)	-19.58 (12.79)	-21.53 (12.74)	-15.29	28.74 (17.17)	9.89 (19.53)	-2.94 (26.29)	-4.78 (27.1)	7.73
Physic nut	2	-10.13 (4.24)	-26.13 (9.69)	-18.22 (0.88)	-30.56 (15.62)	-21.26	20.59 (27.91)	-16.02 (1.50)	5.93 (28.59)	-20.94 (9.46)	-2.61
Pinyon	4	-17.83 (10.7)	-13.16 (8.58)	-10.92 (5.22)	-11.43 (7.42)	-13.34	-2.70 (29.2)	3.47 (22.47)	15.18 (36.05)	30.62 (73.13)	11.64
Pitahaya	1	-2.63	-4.83	-3.23	-3.44	-3.53	18.93	19.88	14.32	21.98	18.78
Pitaya, cina	16	-15.62 (10.73)	-16.4 (10.57)	-12.85 (7.6)	-17.05 (9.28)	-15.48	-9.88 (13.55)	-6.51 (19.72)	-2.76 (14.48)	-5.8 (16.61)	-6.23
Poreleaf, pipicha	4	-9.03 (3.65)	-11.19 (6.05)	-7.86 (2.34)	-14.55 (4.44)	-10.66	6.69 (9.32)	4.18 (11.24)	9.82 (7.97)	-0.61 (6.98)	5.02
Potato	18	-12.47 (6.32)	-15 (8.96)	-13.33 (7.34)	-17.25 (10.07)	-14.51	4.17 (15.24)	1.16 (17.28)	3.09 (14.25)	1.25 (15.31)	2.42
Pumpkin, squash	11	-11.34 (8.69)	-12.24 (7.55)	-12.06 (8.47)	-13.6 (8.24)	-12.31	0.65 (15.98)	3.06 (16.65)	0.78 (15.60)	2.38 (15.23)	1.72
Purple mombin	1	-4.41	-7.21	-2.04	-7.3	-5.24	-27.06	19.03	39.57	21.08	26.68
Sunflower	5	-15.79 (13.01)	-11.79 (6.93)	-9.81 (7.99)	-13.93 (11.58)	-12.83	-2.84 (17.77)	8.57 (14.27)	9.68 (10.07)	18.99 (36.95)	8.60
Sweet-potato	5	-15.33 (4.42)	-19.86 (6.91)	-16.2 (8.12)	-16.42 (4.1)	-16.95	1.11 (6.31)	-6.3 (7.39)	2.33 (14.13)	8.05 (14.77)	1.30
Yam-bean	2	-7.23 (6.52)	-5.55 (6.33)	-6.42 (6.81)	-9.37 (9.65)	-7.14	16.63 (19.22)	31.42 (26.79)	13.4 (12.34)	13.98 (20.96)	18.86
Yellow mombin	1	-16.27	-26.38	-11.19	-21.83	-18.92	-1.89	-18.36	7.58	-9.78	-5.61
Total/Average	**225**	**-12.48**	**-13.76**	**-12.71**	**-15.92**	**-13.72**	**2.67**	**1.79**	**4.44**	**1.44**	**2.59**

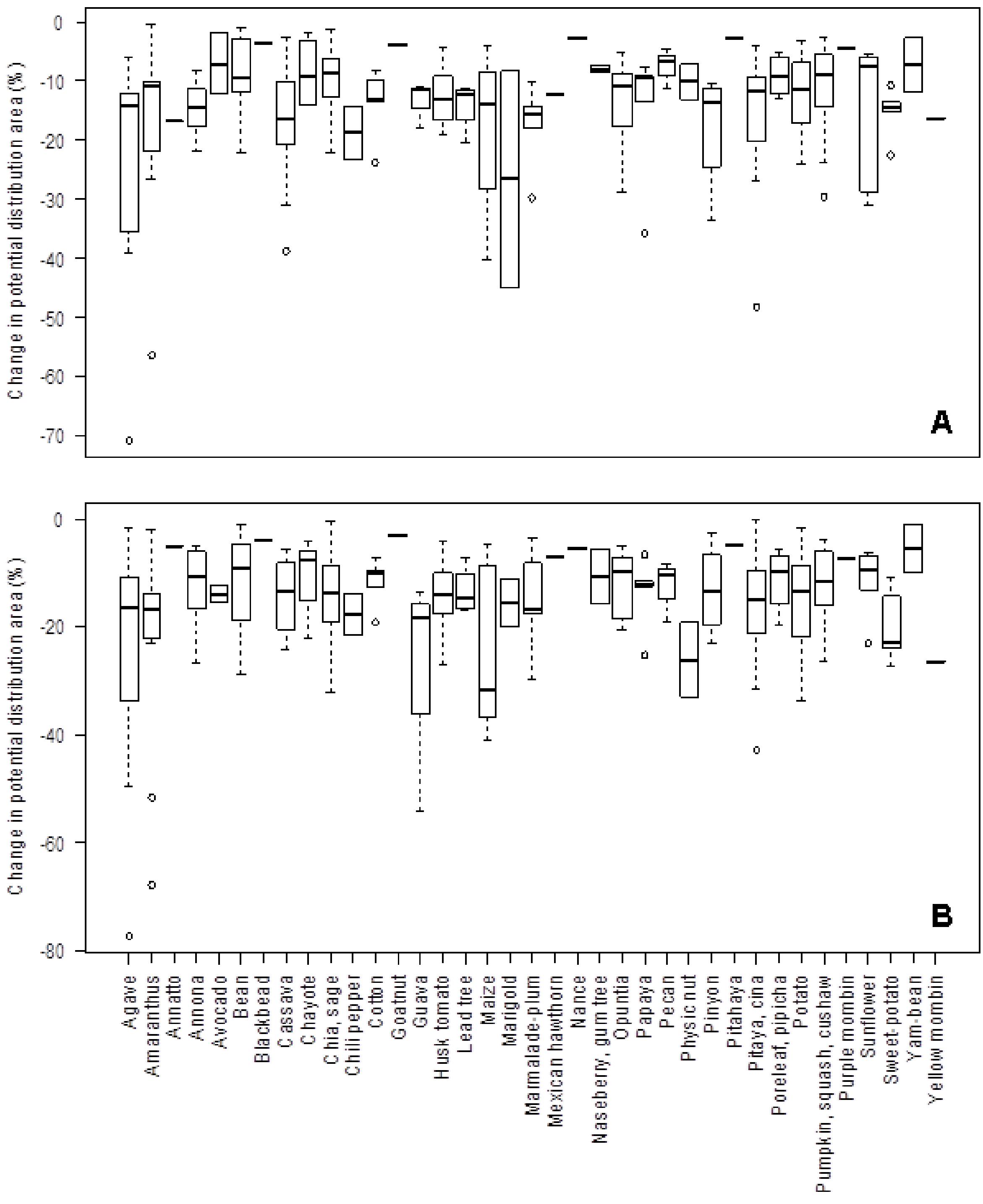

Figure 4.2. Impacts of climate change in the potential distribution area of Mexican crop wild relatives by crop gene pool, considering a no-migration under RCP4.5 emission scenario for the years **a)** 2041-2060 and **b)** 2061-2080. The median (bold line), outliers (individual circles), first and third quartiles are shown.

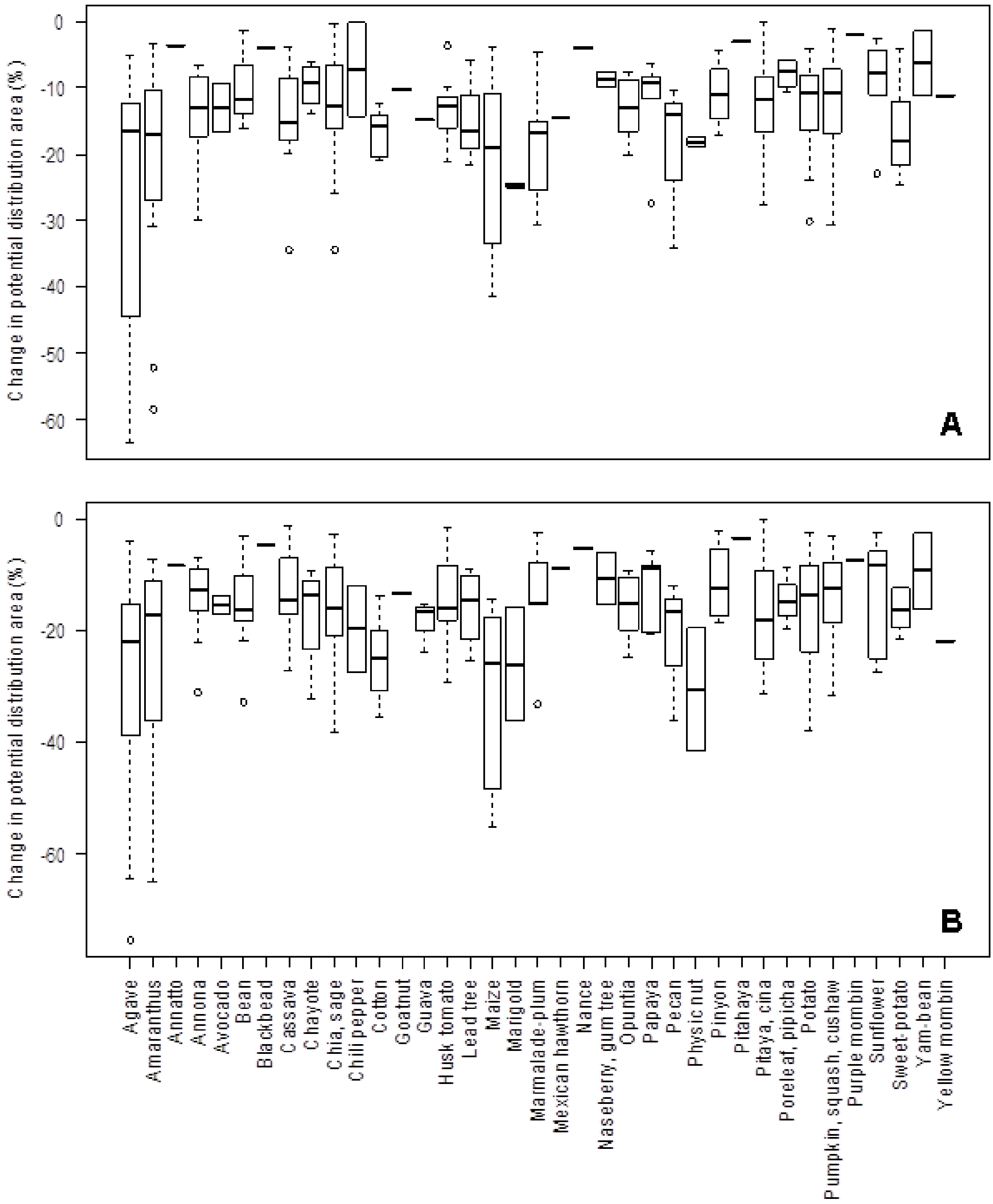

Figure 4.3. Impacts of climate change in the potential distribution area of Mexican CWR by crop gene pool, considering a no-migration under RCP8.5 emission scenario for the years **a)** 2041-2060 and **b)** 2061-2080. The median (bold line), outliers (individual circles), first and third quartiles are shown.

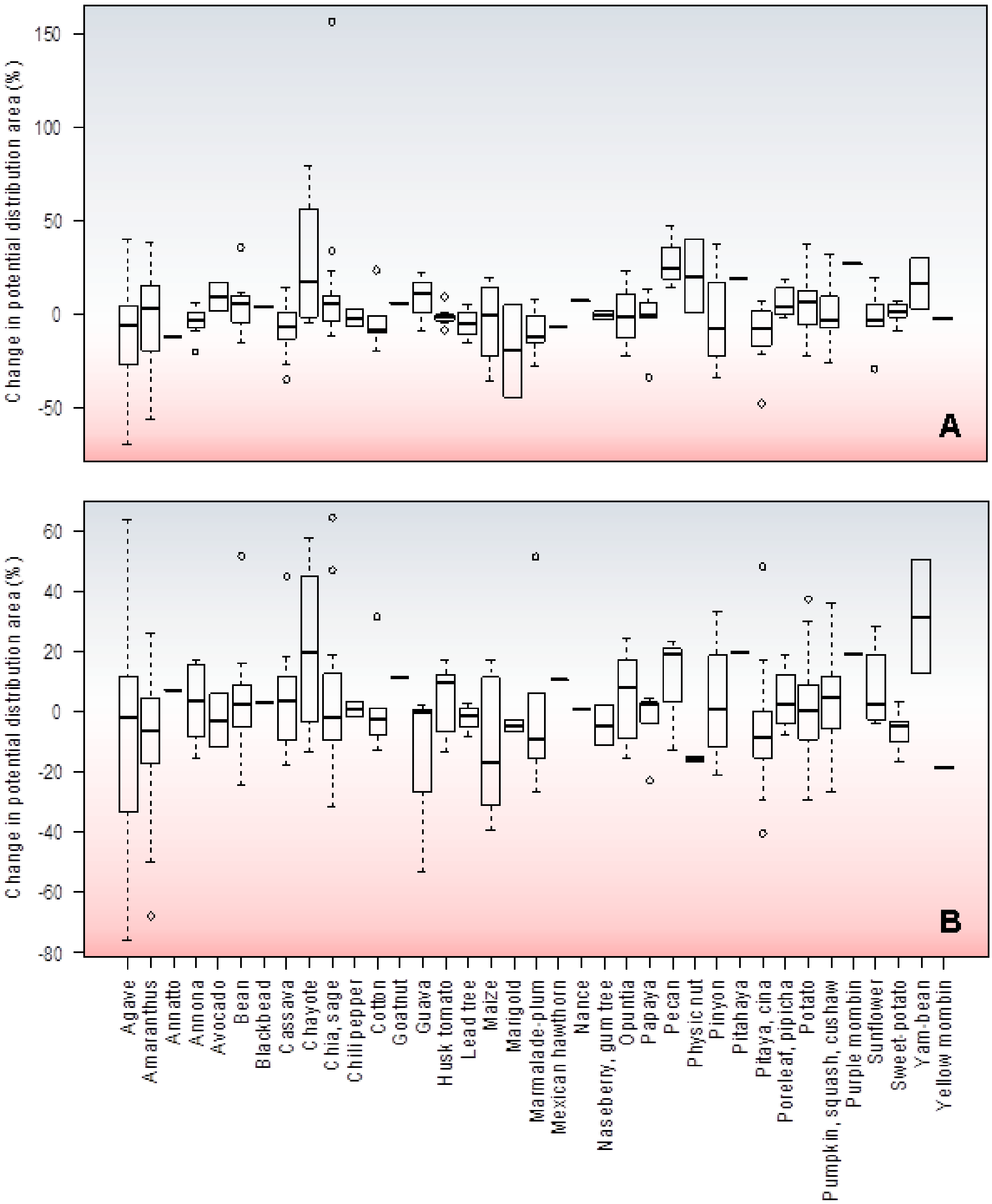

Figure 4.4. Impacts of climate change in the potential distribution area of Mexican crop wild relatives by crop gene pool, considering unlimited migration under RCP4.5 emission scenario for the years **a)** 2041-2060 and **b)** 2061-2080. The median (bold line), outliers (individual circles), first and third quartiles are shown.

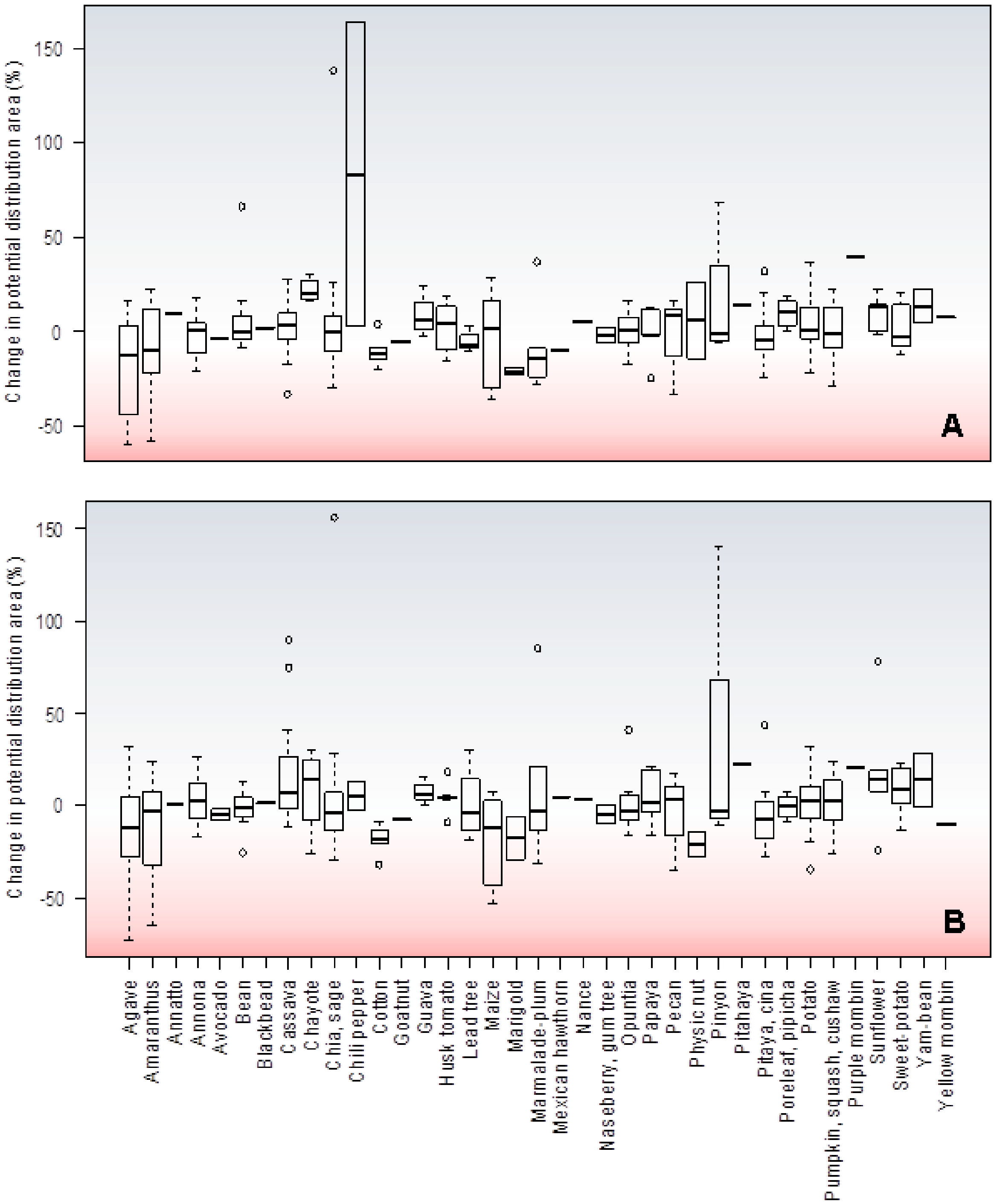

Figure 4.5. Impacts of climate change in the potential distribution area of Mexican crop wild relatives by crop gene pool, considering unlimited migration under RCP8.5 emission scenario for the years **a)** 2041-2060 and **b)** 2061-2080. The median (bold line), outliers (individual circles), first and third quartiles are shown.

The number of threatened CWR taxa considering the A3(c) criterion of IUCN Red List, showed a tendency to increase from year 2050 to 2070 and from RCP4.5 to RCP8.5, with higher numbers showed under the no-migration scenario (Figure 4.6). For RCP4.5, 8 taxa were assessed as Vulnerable (VU), and 3 were assessed as Endangered (EN) under unlimited migration conditions in 2070. Under no-migration conditions, the number of VU taxa was 15, and EN taxa 4 (Figure 4.6). For RCP8.5, 10 taxa were assessed as VU, while further 5 were assessed as EN under unlimited migration conditions in 2070. If no-migration is considered, the number of VU taxa increased to 22, and EN taxa increased to 6 (Figure 4.6). In total, 43 CWR related to 20 crops were assessed as threatened under at least one of the climate change scenarios (Supplementary Table 4.4). Amongst the taxa assessed as EN are CWR of agave (*Agave kewensis* Jacobi, *A. macroacantha* Zucc.), amaranth (*Amaranthus australis* (A. Gray) J.D. Sauer, *A. caudatus* L.) and maize (*Tripsacum bravum* J. R. Gray, and *T. zopilotense* Hern.-Xol. & Randolph) (Supplementary Table 4.4).

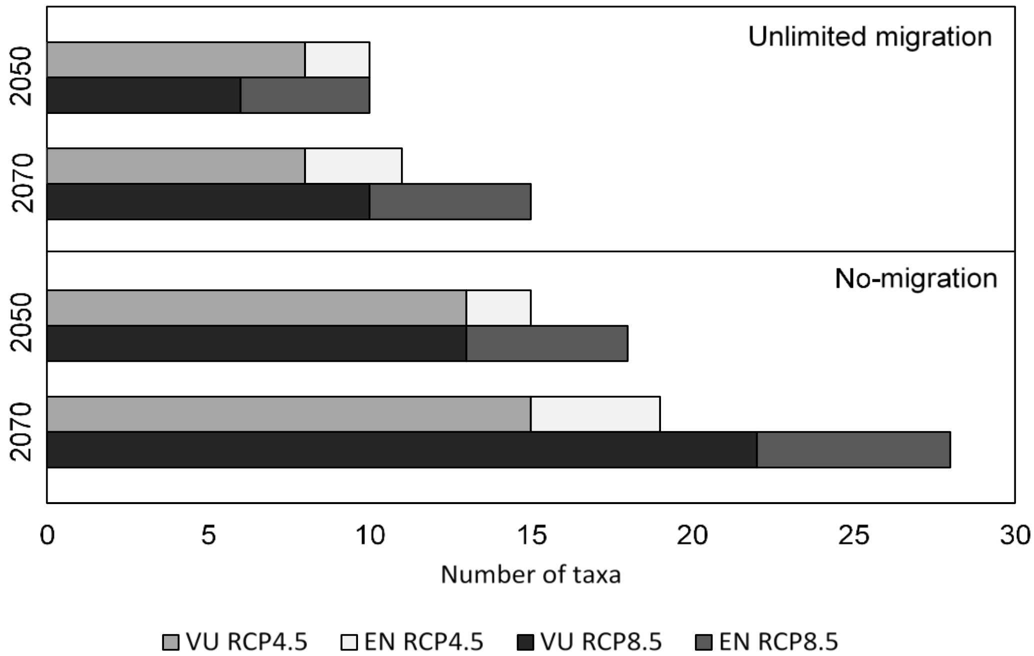

Figure 4.6. Number of crop wild relatives predicted to be threatened based on the A3(c) criterion of the IUCN Red List, considering unlimited migration and no-migration scenarios under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070).

The SDM of the 225 CWR taxa showed high diversity in the central and southern Mexico in all climate change scenarios (also see Figure 3.1 in Chapter 3). Highest taxon richness is observed mainly along the limits of the mountain ranges of the Trans-Mexican Volcanic Belt, Sierra Madre del Sur, Sierra Madre de Chiapas and the southern portion of the Sierra Madre Oriental (Figure 4.7). A decrease the taxon richness can be observed in both RCP and years, compared to the current richness of a maximum of 145 taxa (Supplementary Figure 4.1). For RCP4.5, there was a reduction from 144 taxa in year 2050, to 142 in year 2070. Taxon richness under RCP4.5 is reduced from up to 144 to 139 for RCP8.5 in 2050 and from 142 to 139 for RCP8.5 in 2070 (Figure 4.7). The areas in the south Pacific coast, central Mexico and the region between Veracruz and Oaxaca presented larger losses in the relative change in taxon richness, with losses from up to 17 taxa in 2050 to 29 in 2070 for RCP4.5, and from up to 27 in 2050 to 30 in 2070 for RCP8.5 (*i.e*. more species lost than gained) (Supplementary Figure 4.2, 4.3 and 4.4). Most of the country presented turnover rates of less than 50% for all climate change scenarios (Figure 4.8), including most of the areas of high richness. Turnover rates of up to 100% were detected in low richness areas of the central northern region of Mexico for all climate change scenarios (Figure 4.8).

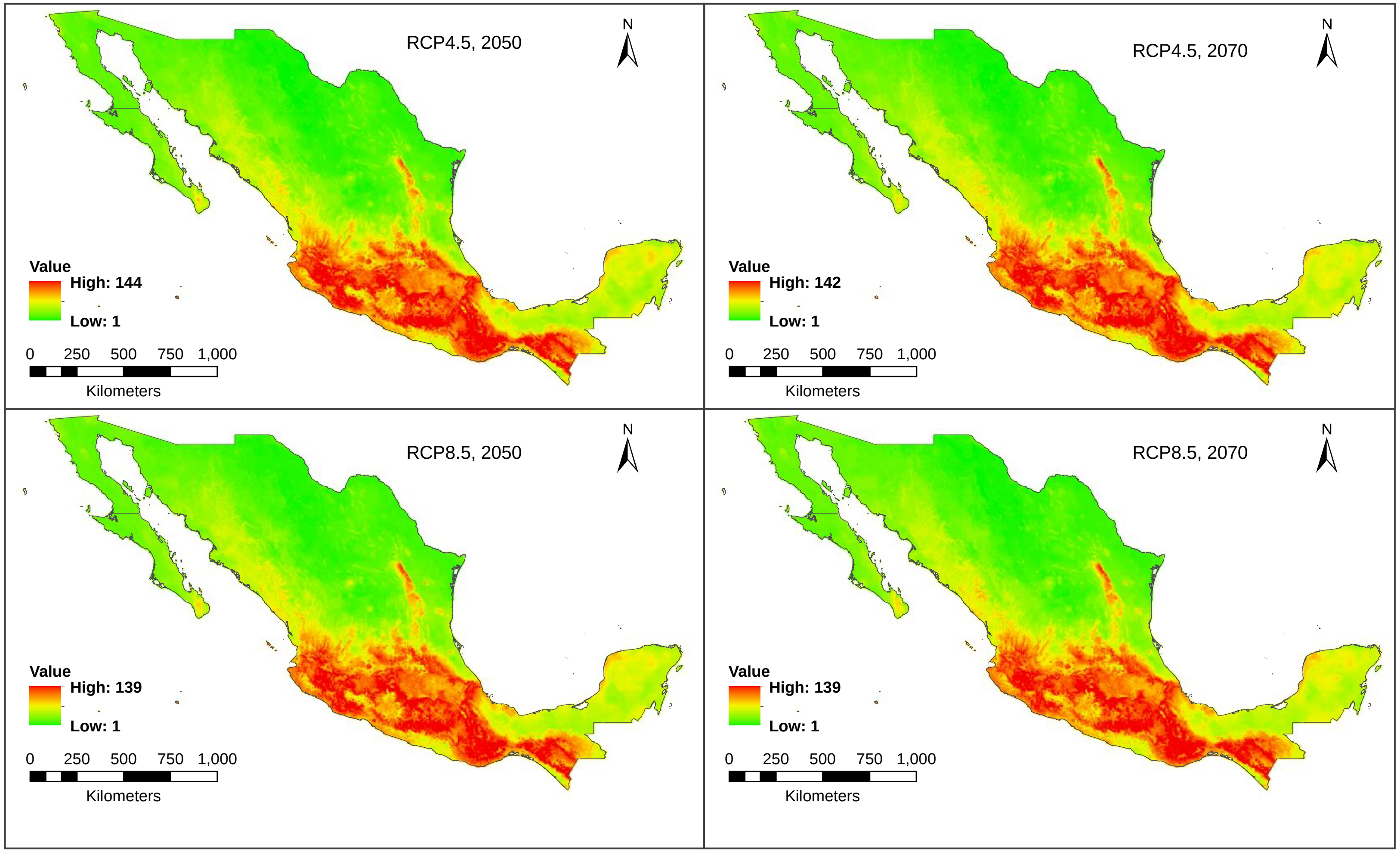

Figure 4.7. Projected taxon richness of 225 crop wild relatives in Mexico considering an unlimited migration scenario under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070). Maps were projected using WGS 1984 coordinate system. Size of grid cell is approx. 5 x 5 Km.

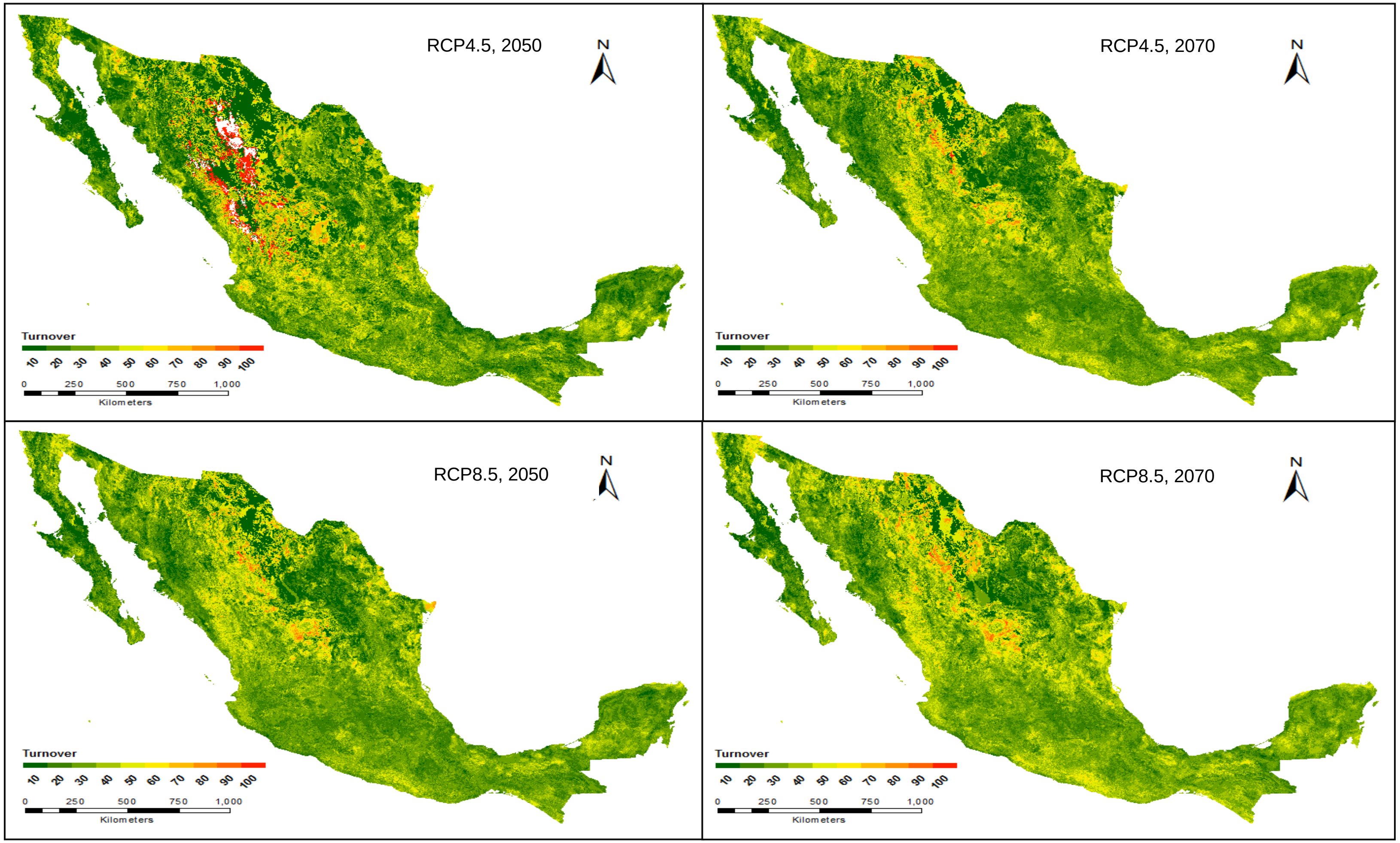

Figure 4.8. Projected taxon richness of 225 crop wild relatives in Mexico considering an unlimited migration scenario under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070). Maps were projected using WGS 1984 coordinate system. Size of grid cell is approx. 5 x 5 Km.

4.5 DISCUSSION

Changes in the ecological niches of Mexican CWR, due to climate change, will potentially impact the geographic distribution of the taxa. Projections showed that about half of the taxa will lose their geographic range at some extent even in the best case scenario analyzed here, *i.e*. under unlimited migration. In the worst case scenario (no-migration), all taxa will reduce their future ranges as they will not be able to migrate to new suitable areas, with more significant losses seen under the high emissions scenario. These trends are similar to those observed in previous studies conducted on CWR (Jarvis *et al*., 2008; Ureta *et al*., 2011; Aguirre-Gutiérrez *et al*., 2017; Phillips *et al*., 2017). Wild relatives of economically important crops, such as agave (*Agave* spp.), amaranth (*Amaranthus* spp.) and maize (*Zea* spp. and *Tripsacum* spp.), are amongst the most negatively impacted. Wild relatives of potato (*Solanum* spp.) showed relatively smaller average reductions as compare to results of Jarvis *et al*. (2008), however the number and composition of the taxa included in this crop gene pool were different. At species level, our results are more conservative for some of the taxa, particularly CWR of chayote (*Sechium chinantlense* Lira & F. Chiang) and maize (*Zea perennis* (Hitchc.) Reeves & Mangelsd. and *Zea diploperennis* Iltis, Doebley & R. Guzman) for which the whole distribution range was predicted to be lost by Lira *et al*. (2009) and Ureta *et al*. (2011). These differences could be due to the bioclimatic variables and prediction models used by the two studies. However, the present study suggests important declines in the geographic range of CWR taxa that might affect their threat status, becoming more vulnerable to climate change. Some wild relatives that were assessed as VU or EN under future climate conditions have particular interest for breeders, as they have confirmed use in genetic improvement of crops (*e.g*. *Zea perennis* (Hitchc.) Reeves & Mangelsd. and *Manihot pringlei*

S. Watson), or they belong to the primary gene pool of the related crop (*e.g*. *Cucurbita pepo* subsp. *fraterna* L. (L. H. Bailey) Lira *et al.*).

In Mexico, the northern states are projected to face increased temperatures of up to 4-5°C for RCP8.5 in year 2070. This is the part of the country where larger areas presenting higher turnover rates were observed. This tendency agrees with results observed in a recent study carried out in Norway by Phillips *et al*. (2017), applying the same methodology to analyse the impacts of climate change to national CWR. They reported increasing turnover rates towards the northern region of the country where more drastic changes in climatic conditions were projected. In the case of Mexico, the areas of larger turnover rates coincide with areas of semi-arid grassland ecosystems. This could be a consequence of the predicted alterations of grasslands due to climate change reported by several authors (*e.g.* Zavaleta *et al*., 2003; Trejo *et al*., 2011; Friggens *et al*., 2012). Our results showed that there is a relatively higher proportion of gains than losses of taxa in those ecosystems, meaning that they can be potentially colonized by some taxa from the lower limits of the Sierra Madre Occidental, leading to significant changes in the composition of the CWR populations. Previous studies also suggested that semi-arid grasslands may show earlier responses to climate change, becoming more suitable for woody-species (Morgan *et al*., 2007; Barron-Gafford *et al*., 2012). CWR populations in the Central Mexican Plateau (northern plains) remain the more stable in the studied future scenarios. Plant communities in this area are dominated by arid shrublands that have been reported to be apparently more resilient to variations in rainfall and temperature (Miranda *et al*., 2012; Salguero-Gómez *et al*., 2012).

On the other hand, areas of high taxon richness in Mexico, found mainly in the central and southern regions, appear to be contracting, while richness in Norway was reported to be expanding from south-eastern to northern areas (Phillips *et al*., 2017). It was presumed that increasing temperatures favour the expansion of less restricted areas for CWR (Phillips *et al.*, 2017). In contrast, future climatic conditions in northern Mexico, including rising temperatures, are likely to be a factor preventing the distribution of taxa towards those areas, hence low taxon richness was predicted to continue.

Conservation priorities can be established on the basis of the impacts of climate change to CWR. To develop an effective long-term conservation strategy both *in situ* and *ex situ* conservation actions should be implemented (Maxted *et al.*, 2015; Magos Brehm *et al.*, 2017). For example, taxa reducing drastically their potential distribution ranges and becoming vulnerable or endangered will have the highest priority for *ex situ* collection (Phillips *et al.*, 2017). Dynamics of taxon richness and turnover rates can also contribute to prioritization for conservation action (Aguirre-Gutiérrez *et al.*, 2017; Philips *et al.*, 2017). *Ex situ* collections from the northern areas of Mexico showing high turnover rates should be undertaken as these areas are likely to suffer substantial alterations in the plant communities. In addition, existing protected areas (PA) may face CWR taxon richness losses with climate change (Araújo *et al.*, 2004). To overcome this, areas where current taxon richness is predicted to remain in the future can be conserved *in situ* for they are representative populations (Araújo *et al.*, 2004; Dulloo *et al.*, 2008), mainly in the central and southern mountain ranges of Mexico. Moreover, areas of future genetic richness should be studied and considered for the expansion of current PA or for the establishment of new genetic reserves (Araújo *et al.*, 2004; Dulloo *et al.*, 2008). The efficacy of Mexican PA to conserve biodiversity is variable and is susceptible to land use changes and plant cover alterations; such pressures reduce primary natural vegetation or increase the range of altered ecosystems (Sánchez-Cordero *et al.*, 2011). *Ex situ* collections from genetic reserves (current and eventually from future reserves) should likewise be stored in genebanks that will make them available for researchers and breeders (Maxted *et al*., 2015; Magos Brehm *et al*., 2017).

Assessment of vulnerability to climate change is not only limited to how their modelled ecological niche could be transformed (expanded or reduced) in future climate scenarios. Uniformity of spatial distribution of a species through its range (Shoo *et al*., 2005), migration capacity (Guisan and Thuiller, 2005), local adaptations (Shaw and Etterson, 2012), range shifts interactions with fragmentation and land-use (Benning *et al*., 2002), population dynamics (Post and Forchhammer 2004; Guisan and Thuiller, 2005) and prevalence of diseases (Elad and Ilaria 2014; Das *et al*., 2016), are some examples of complex biotics and abiotic interactions that may be determining factors when assessing the impacts of climate change on species distribution (Guisan and Thuiller, 2005; Akçakaya *et al*., 2006). Further studies of successional processes in areas where shifts in the composition of species communities were predicted in Mexico, such as the semi-arid grasslands, will enhance the knowledge of the influence of climate alterations. Additionally, the identification of future possible competitors of CWR and adaptation processes to new distribution areas, in agreement with the dispersal capacity of the species, are essential to further understand the magnitude of the impacts of climate change (Heller and Zavaleta, 2009; Alexander *et al*., 2015).

According to the IUCN SSC Guidelines (Foden and Young, 2016), vulnerability assessment to climate change can be performed using a correlative method which assumes that population size is correlated to distribution range. Despite the limitations on incorporating biotic and abiotic interactions, like those mentioned above, variations in the potential distribution ranges remain a reliable approach to infer vulnerability to climate change (Foden and Young, 2016). Climate change analyses are also highly dependent on the scale of time and severity of variations. IUCN SSC Guidelines (Foden and Young, 2016) also suggest that at least two emission scenarios and two time scales should be used. I included one intermediate emissions scenario (RCP4.5) and one high emissions scenario (RCP8.5) and two time periods (2050 and 2070) as climate change models. Nevertheless, the results of this research can be improved by including additional emissions scenarios and time periods as well as compare a combination of prediction models and selection of variables methods, to minimize uncertainties and reach a consensus amongst the models (Braunisch *et al*., 2013; Gould *et al*., 2014; Zhang *et al*., 2015).

In summary, the following recommendations are proposed based on the results of the present study that will help the establishment of *in situ* and *ex situ* conservation of priority CWR in Mexico facing climate change:

1. The 43 CWR that were assessed as threatened under at least one of the climate change scenarios must be prioritized for *ex situ* collection (Supplementary Table 4.4).
2. Following Figure 4.8, *ex situ* collections of CWR from the areas showing high turnover rates of 100% (mainly in the central north of Mexico) should also be undertaken to conserve the genetic diversity of the current populations occurring in those areas.
3. *In situ* conservation of CWR should be established in areas in the central and southern mountain ranges of Mexico shown in Figure 4.7 where current taxon richness is predicted to remain under all scenarios of climate change.
4. Following Figure 4.7, areas that are predicted to become favourable for the dispersal of CWR in all climate change scenarios should be evaluated for *in situ* conservation, *e.g*. potential expansion of current PA.

5. The accessions should be safeguarded and duplicated in national and regional gene banks. For example, the National Genetic Resources Centre (CNRG) of INIFAP in Mexico (www.inifap.gob.mx) is an outstanding genebank with the capacity for the systematic long-term conservation of genetic resources, so they can be available for crop breeders.
6. The population size of all priority CWR should be monitored periodically to identify those CWR that might eventually reduce their population size and require further *ex situ* collection.
7. Complementarily, genetic diversity analysis should be conducted to monitoring the genetic erosion of CWR due to reduction in population size and then additional *ex situ* collections requirements can be identified.
8. The results obtained in this analysis should be considered in agreement with the recommendations in Chapter 3 for both *in situ* and *ex situ* conservation of priority CWR.

4.6 CONCLUSIONS

Assessing the vulnerability of species to climate change involves the analysis of multiple components, as defined by the IUCN SSC Guidelines (Foden and Young, 2016) and a range of these have been considered in the analysis undertaken. Complementary *in situ* and *ex situ* conservation should be carried out for those CWR that are predicted to be more vulnerable or become endangered due to large declines in population size, as estimated by reduction in modelled geographic range. The analysis found CWR of national and global important crops such as agave, maize and amaranth are amongst the genepools most negatively impacted. Changes in the species composition of populations and shifts in taxon richness are key elements when identifying priorities for conservation, although these results should be treated with caution due to biotic and abiotic interactions not considered in this study, as well as the uncertainties associated to climate change and species distribution modelling.

As for plant diversity in general, climate change is one of the most significant threats to CWR distribution, abundance and composition and must be taken into account when developing conservation strategies (Dulloo *et al*., 2008; Aguirre-Gutiérrez *et al*., 2017; Magos Brehm *et al*., 2017). This study highlights the urgent need to establish *in situ* and *ex situ* conservation actions for Mexican CWR to ensure the long-term preservation of important diversity forestalling the impacts of climate change.

CHAPTER 5

THREAT ASSESSMENT OF PRIORITY MEXICAN CROP WILD RELATIVES

5.1. ABSTRACT

In Mexico, a relatively small number of plant taxa has been assessed using the NOM-059-SEMARNAT-2010 (Mexican Official Norm for environmental protection of native wild plant and animal species) or the IUCN Red List Categories and Criteria, and only a few of them are priority crop wild relatives (CWR) for conservation. CWR are wild plants closely related to cultivated species. They possess wide genetic variation particularly useful to confer resistance or tolerance to plant pests and diseases, improving productivity and quality traits or gaining adaptability to climate change. Nevertheless, they may also be affected by climate change and other threats. Thus, there is a need for the assessment of more CWR taxa in Mexico. Here we analyzed the threat status of 97 priority CWR taxa assessed using the IUCN Red List Categories and Criteria. Twenty-three (24%) CWR occurring in Mexico were assessed as threatened, 16 (70%) of which are endemic to the country. One taxa (1%) was assessed as Critically Endangered (CR), 17 (18%) as Endangered (EN) and 5 (5%) as Vulnerable (VU). Additionally, 5 taxa (5%) were assessed as Near Threatened (NT). Amongst the threats to these taxa, non-sustainable agriculture, livestock farming and urban development are the most common. These results will contribute to further develop the CWR conservation strategy for Mexico, by recognizing the main threats and potential impacts to CWR, and aiding in the establishment of conservation priorities.

Keywords: Crop wild relatives, Threat assessment, Conservation, Extinction risk

5.2. INTRODUCTION

Crop wild relatives (CWR) are wild species with a close relationship to cultivated plants that possess a wide genetic variation valuable for the genetic improvement of crops (Harlan and de Wet, 1971; Tanksley and McCouch, 1997; Vollbrecht and Sigmon, 2005; Maxted *et al*., 2006) They can potentially be used to confer important traits, such as resistance or tolerance to crop pests and diseases, increasing productivity and quality traits or gaining adaptability to climate change (Maxted and Kell, 2009; Ford-Lloyd *et al*., 2011). However, the effects of climate change and other threats may also have an impact on the genetic diversity, geographic distribution and survival of CWR (Jarvis *et al*., 2008; Lira *et al*., 2009; Kell *et al*., 2012; Aguirre-Gutiérrez *et al*., 2017; Magos Brehm *et al*., 2017; Phillips *et al*., 2017).

In Mexico, there are 988 plant species identified as threatened at some level, according to the classification of the NOM–059–SEMARNAT–2010 (Mexican Official Norm for Environmental protection of native wild plant and animal species) (DOF, 2015). This is a low number of assessed species, considering the more than 25,000 plant species occurring in the country, so there is a need for the assessment of more plant species.

The International Union for Conservation of Nature (IUCN, http://www.iucnredlist.org/) has established a series of rules for the objective assessment of the risk of extinction of the species at global and regional scale (IUCN, 2012). The IUCN Red List assessment and categories are now widely accepted and can be applied to any specific or infraspecific taxon, and must be applied to native or introduced wild populations (IUCN, 2016). The threat status of a species is determined using five quantitative criteria: A) population size reduction, B) geographic range, C) small population size and decline, D) very small or restricted population, and E) quantitative analysis indicating the probability of extinction (IUCN, 2017). Using these criteria (and their corresponding sub-criteria), a threatened category can be assigned to each species (Figure 5.1), these are: Critically Endangered (CR), when the taxon is at extremely risk of extinction in the wild; Endangered (EN), when the taxon is at very high risk of extinction in the wild, and Vulnerable (VU), for taxa with high risk of extinction in the wild (IUCN, 2012). The Near Threatened (NT) category is applied to taxa that do not meet the threatened criteria at present but they may be threatened in the near future. Least Concern (LC) taxa are those abundant and prevalent that do not meet any threatened criteria. The Extinct (EX) category is used when there is no record of an individual of the taxon with an appropriate field survey; and Extinct in the Wild (EW) is assigned to a taxon surviving only in captivity, cultivation or outside its natural range (IUCN, 2012).

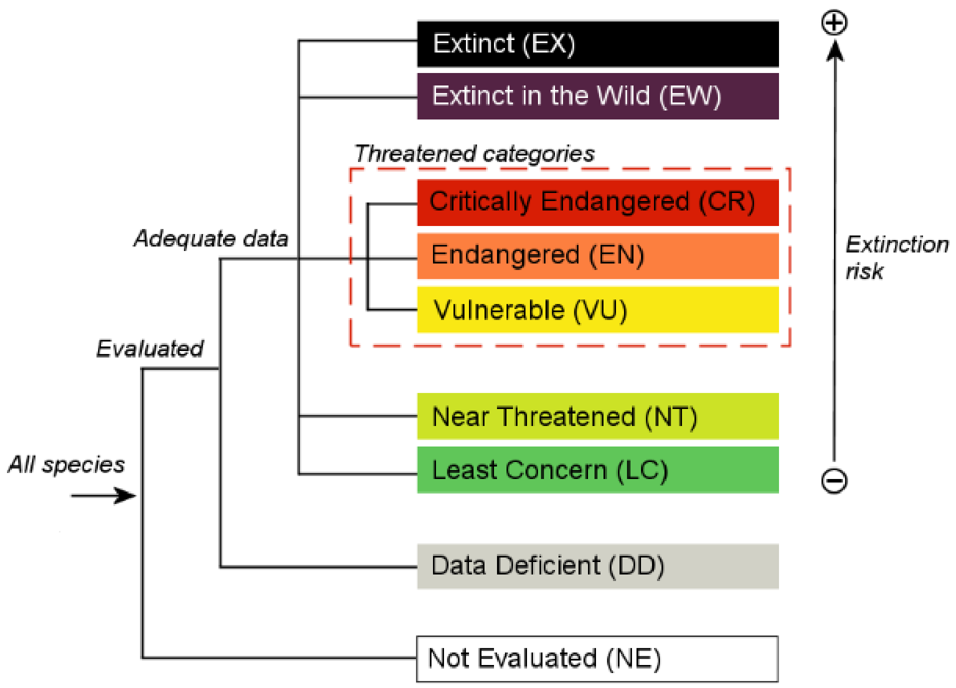

Figure 5.1. IUCN Red List categories according to the extinction risk level (Reproduced from: IUCN, 2012).

The IUCN Red List methodology has been successfully implemented to assess large plant groups, such as the European vascular plants (Bilz *et al.*, 2011) or the family Cactaceae

(Goettsch *et al.*, 2015). Moreover, the first major assessment of CWR was undertaken as a component of the European Red List of Vascular Plants project by Kell *et al.* (2012), assessing 591 CWR of 25 priority crop gene pools. The assessment of the threat status of CWR can contribute to the conservation planning, particularly during the prioritization process of CWR for conservation, *e.g.* the most threatened taxa will have higher conservation priority, and for the identification of areas with high number of threatened CWR (Maxted and Kell, 2009; Magos Brehm *et al.*, 2017). Here I assessed the extinction risk of priority CWR in Mexico based on the IUCN Red List assessment procedure, to generate information that complements the prioritization process as part of the development of a national conservation strategy of these plant genetic resources.

5.3. MATERIALS AND METHODS

5.3.1 CWR taxa

Crop wild relatives previously identified as priorities for conservation in Mexico were selected and are part of a prioritized CWR inventory for Mexico (see Chapter 2). The 310 taxa in the inventory were selected based on a series of socio-economical, biological and socio-economic criteria (Table 2.1 in Chapter 2). The selection criteria were: economic value of the related crop, level of relationship to the crop, threatened status (when available), geographic distribution, food supply (energy, protein and fat) and use. Out of the 310, only 59 CWR were assessed in this study due to time limitations and to avoiding overlapping with the Safeguarding Mesoamerican Crop Wild Relatives project (http://www.psmesoamerica.org). They belong to 6 families, 8 genera, 52 species and 4 subspecies (Table 5.1, taxa listed in Supplementary Table 5.1). The subpopulations of the four teosinte races of *Zea mays* subsp. *mexicana* (Durango, Nobogame, Chalco and Mesa Central) were assessed individually because they are geographically and morphologically distant within the subspecies (Sánchez, 2011; Torres-Peña *et al*., 2015).

Table 5.1. Number of crop wild relatives that were assessed in this study using the Rules of Procedure of the IUCN Red List Assessments 2017-2020 (IUCN, 2016).

Family	**Genus**	**CWR Taxa assessed**
Cucurbitaceae	*Cucurbita*	10
Fabaceae	*Phaseolus*	3
Lauraceae	*Persea*	2
Malvaceae	*Gossypium*	1
Poaceae	*Tripsacum*	11
	Zea	8
Solanaceae	*Physalis*	4
	Solanum	20
6	**8**	**59**

5.3.2 Gathering information

Global threat assessments were conducted as established in the Rules of Procedure of the IUCN Red List Assessments 2017-2020 (IUCN, 2016), by compiling and generating the information required, preparing the supporting documentation and assessment review by experts. Figure 5.2 shows the general outline of the procedure. A summary of the information required for each taxon is shown in Table 5.2. The data were collected from different literature sources, including research papers, journals, proceedings, reports, gazettes, books, institutional websites and online databases, and uploaded to the IUCN Species Information Service (SIS). The final threat category was assigned based on the Guidelines for using the IUCN categories and criteria (IUCN, 2017).

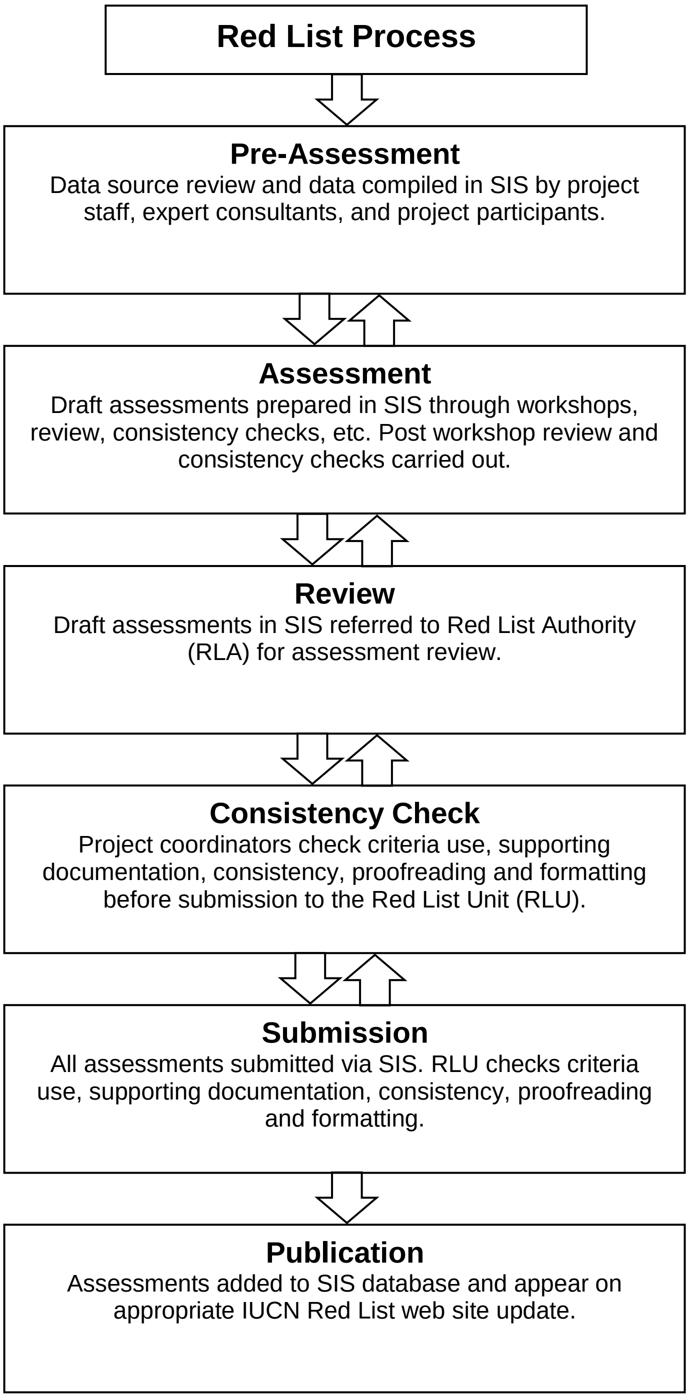

Figure 5.2. General outline of the IUCN Red List assessment procedure (Adapted from: IUCN, 2016).

Table 5.2. General information required for the IUCN Red List assessments. For more detail see IUCN (2016).

Information	**Description**
Taxonomic information	Scientific name
	Synonym(s) and common name(s)
	Taxonomic uncertainty or species complex
Distribution	Geographic range
	Elevation
	Occurrence
	Extent of occurrence, area of occupancy
Population	Population size and trends
	Abundance (the taxon is common, abundant, or rare)
Habitat and ecology	Suitable habitats or ecological requirements
	Extent and/or quality of habitat
Use and trade	End or potential use or trade
Threats	Past, ongoing or projected major threats
	Impact level and trends
Conservation	Current and needed conservation measures
	Research actions needed

5.3.3 Workshop

A regional workshop was conducted as part of the project Safeguarding Mesoamerican Crop Wild Relatives (http://www.psmesoamerica.org), in Cuernavaca, Morelos, Mexico, from 13 to 17 February 2017. The project is a collaboration between institutes from El Salvador, Guatemala, Honduras, Mexico and the United Kingdom, and funded by the Darwin Initiative, UK. During the workshop, several experts from national and international research institutes reviewed the 59 assessments, distribution range maps and provided complementary information. The assessments were checked for data consistency and edited accordingly after the workshop by assessors, experts and evaluators. Details are included in Supplementary Table 5.1.

5.3.4 Additional taxa

Complementarily, assessments of 31 taxa previously published in the IUCN Red List of Threatened Species (www.iucnredlist.org) were included in this analysis, as they also were identified as priority CWR for Mexico (Chapter 2). In addition, 7 taxa assessed as part of a global CWR Red List project were also included. The additional taxa are listed in the Supplementary Table 5.1.

5.4. RESULTS

A total of 97 CWR were included in the analysis. They belong to 12 families, 17 genera, 90 species, 4 subspecies and 4 subpopulations. They are related to 16 crops and included subpopulations of the four teosinte races of *Zea mays* L. subsp. *mexicana* (Schrad.) H. H. Iltis (Table 5.3, all taxa are listed in Supplementary Table 5.1). They represent 65% of the CWR in the national inventory for Mexico for the corresponding crop gene pools (see Chapter 2).

Table 5.3. Number of crop wild relatives that were used in this study.

Family	**Genus**	**Crop**	**CWR**	**Total CWR in the inventory**
Asteraceae	*Helianthus*	Sunflower	4	9
Cactaceae	*Hylocereus*	Pitahaya	1	1
	Opuntia	Opuntia	6	12
	Stenocereus	Pitaya, cina	18	20
Caricaceae	*Carica*	Papaya	1	1
Convolvulaceae	*Ipomoea*	Sweet-potato	1	6
Cucurbitaceae	*Cucurbita*	Pumpkin, squash	10	11
Fabaceae	*Phaseolus*	Bean	3	14
Lauraceae	*Persea*	Avocado	2	2
Malvaceae	*Gossypium*	Cotton	1	6
	Theobroma	Cacao	1	1
Pinaceae	*Pinus*	Pinyon	4	5
Poaceae	*Tripsacum*	Maize	11	15
	Zea	Maize	8	5
Sapotaceae	*Pouteria*	Marmalade-plum	2	8
Solanaceae	*Physalis*	Husk tomato	4	8
	Solanum	Potato	20	20
12	17	16	97	144

Seventy four (76%) out of the 97 CWR taxa were assessed as non-threatened, five (5%) of which were assessed as Near Threatened (NT), 60 (62%) as Least Concern (LC) and 9 (9%) were Data Deficient (DD) (Figure 5.3a). The remaining 23 taxa (24%) were assessed as threatened. One taxa (1%) was assessed as Critically Endangered (CR), 17 (18%) as Endangered (EN) and 5 (5%) as Vulnerable (VU) (Figure 5.3a). Fifty six (58%) of the total taxa assessed and 70% (16) of the threatened taxa are endemic to Mexico (Figure 5.3b). Of the endemic taxa, one (2%) is CR, 13 (23%) are EN and 2 (4%) are VU; additionally, 4 (7%) are NT (Figure 5.3b). Maize and potato genepools have the highest number of threatened CWR taxa, 9 and 4, respectively (Figure 5.4a). About half of the taxa (50) have stable populations, while the population of 27 taxa (28%) are decreasing. Nearly 61% (14) of the threatened CWR have declining populations. Maize is also the crop with the highest number of taxa (10) that have declining populations (Figure 5.4b).

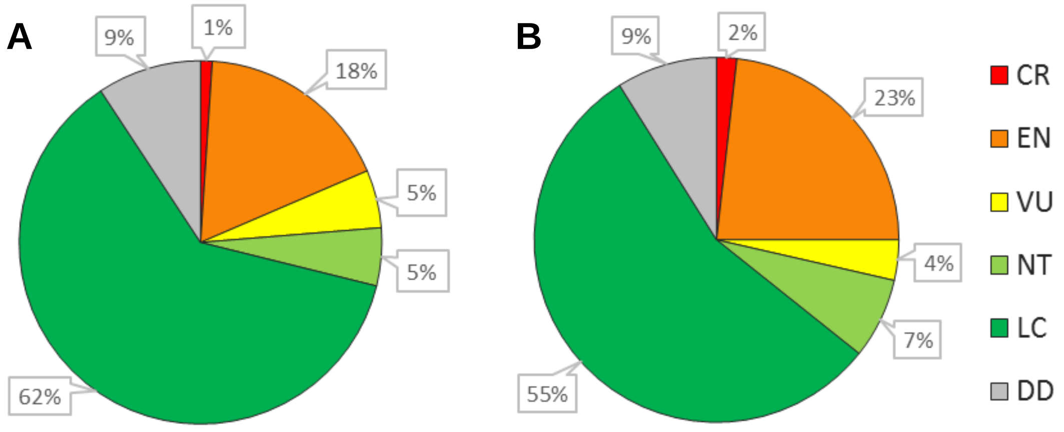

Figure 5.3. Red List categories of priority Mexican CWR (A) and Red List categories of CWR endemic to Mexico (B). CR: Critically Endangered; EN: Endangered; VU: Vulnerable; NT: Near Threatened; LC: Least Concern; DD: Data Deficient.

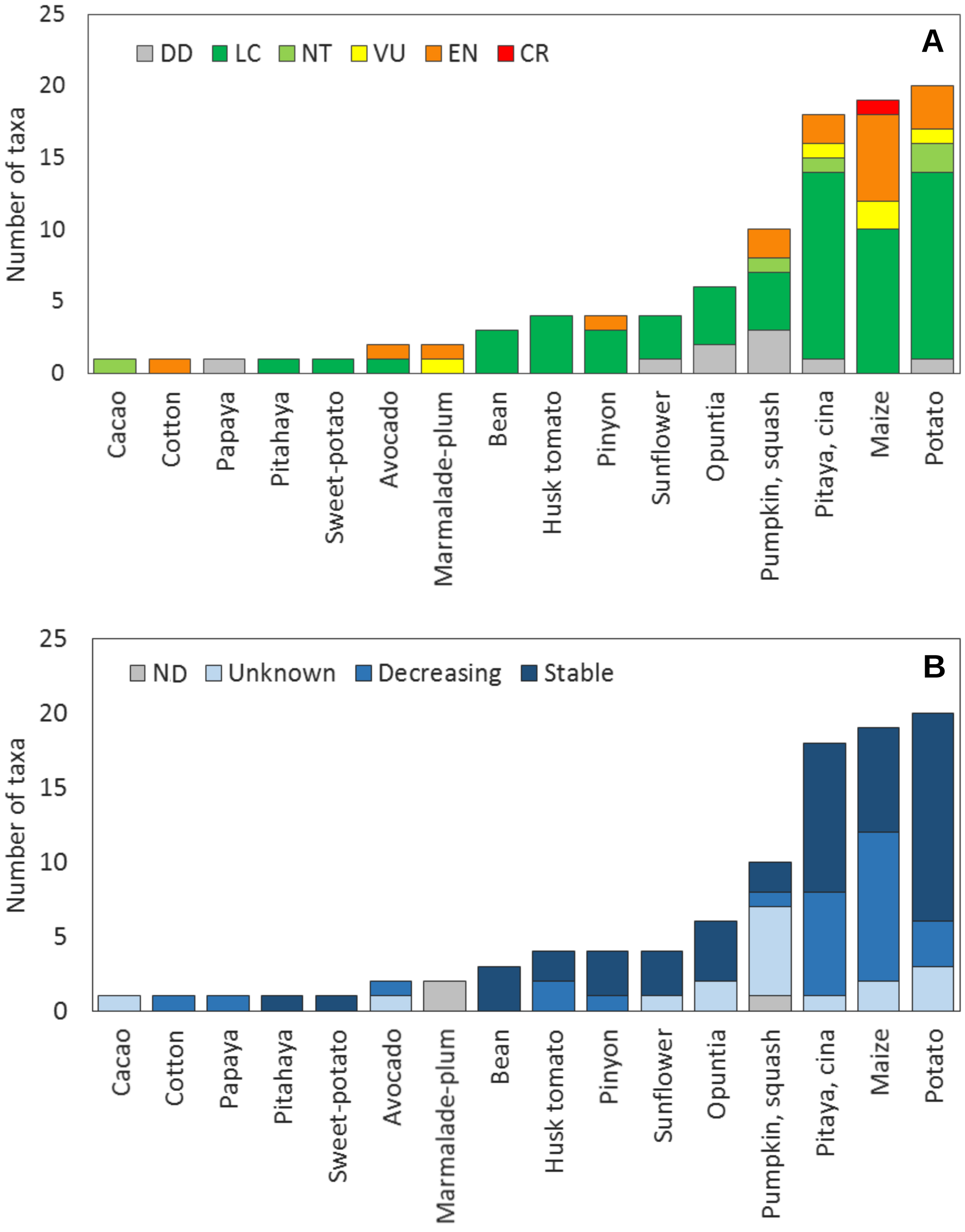

Figure 5.4. Red List categories of priority Mexican crop wild relatives (CWR) per crop gene pool (A) and population trends (B). CR: Critically Endangered; EN: Endangered; VU: Vulnerable; NT: Near Threatened; LC: Least Concern; DD: Data Deficient; ND: No data.

Figure 5.5 shows the distribution of the endemic and non-endemic threatened taxa, *i.e.* those taxa that were assessed as CR, EN or VU occurring in Mexico. The threatened taxa are distributed mainly in the central-south parts of the country and some taxa are found in the northwest (Figure 5.5).The states with highest threatened diversity are Oaxaca, Veracruz, Jalisco, Guerrero, Puebla and Hidalgo, where up to 6 threatened CWR can be found.

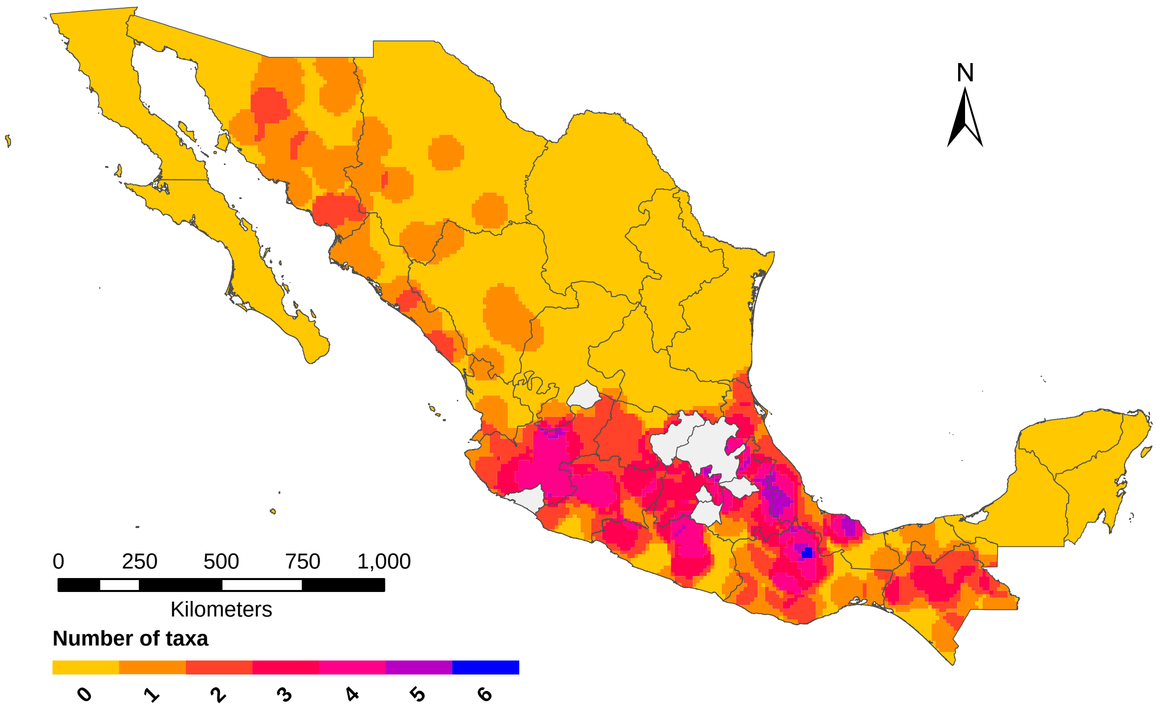

Figure 5.5. Taxon richness of the threatened priority crop wild relatives of Mexico (CR, EN and VU). Map was projected with the WGS 1984 coordinate system.

About 59% (26) threatened taxa are found in forest ecosystems (Figure 5.6a), mainly subtropical/tropical dry forests, temperate forests and subtropical/tropical moist montane forests (Table 5.4). Seven taxa (16%) are found in artificial or terrestrial environments, principally near plantations. Agriculture and aquaculture are the more recurrent threats that were reported for the threatened CWR, affecting 53% (57) of the taxa (Figure 5.6b). The main activities are those related to annual and perennial non-timber crops, such as agro-industry farming and small-holder farming, reported for 11 and 21 taxa, respectively, and those related to livestock farming and ranching, mainly small-holder grazing, ranching or farming, reported for 13 taxa (Table 5.5). Other important threat is the residential and commercial development, such as housing and urban areas affecting 9% of the taxa (10).

Table 5.4. Number of threatened crop wild relatives present per habitat type in Mexico.

Habitat	**Frequency (no. of CWR)**
Forest - Subtropical/Tropical Dry	10
Forest - Subtropical/Tropical Moist Montane	6
Forest - Temperate	6
Forest - Subtropical/Tropical Moist Lowland	4
Artificial/Terrestrial - Plantations	4
Grassland - Subtropical/Tropical Dry	3
Shrubland - Subtropical/Tropical Dry	3
Artificial/Terrestrial - Arable Land	2
Rocky areas (*e.g.* inland cliffs, mountain peaks)	2
Artificial/Terrestrial - Urban Areas	1
Shrubland - Temperate	1
ND	2

ND: No data

Several areas for filling the gaps in the information related to the taxa assessed were identified. For example, more research on population size, distribution and trends is required for 19 taxa (25%), as well as research on threats for 14 taxa (18%). Monitoring of habitats and populations trends were identified as important activities required for 16 (21%) and 15 (20%) taxa, respectively (Figure 5.6c). Furthermore, conservation actions that should be implemented were also recognized, the most recurrent actions included site protection for 14 taxa (33%), *ex situ* conservation for 10 taxa (24%), and habitat protection 7 (17%) (Figure 5.6d).

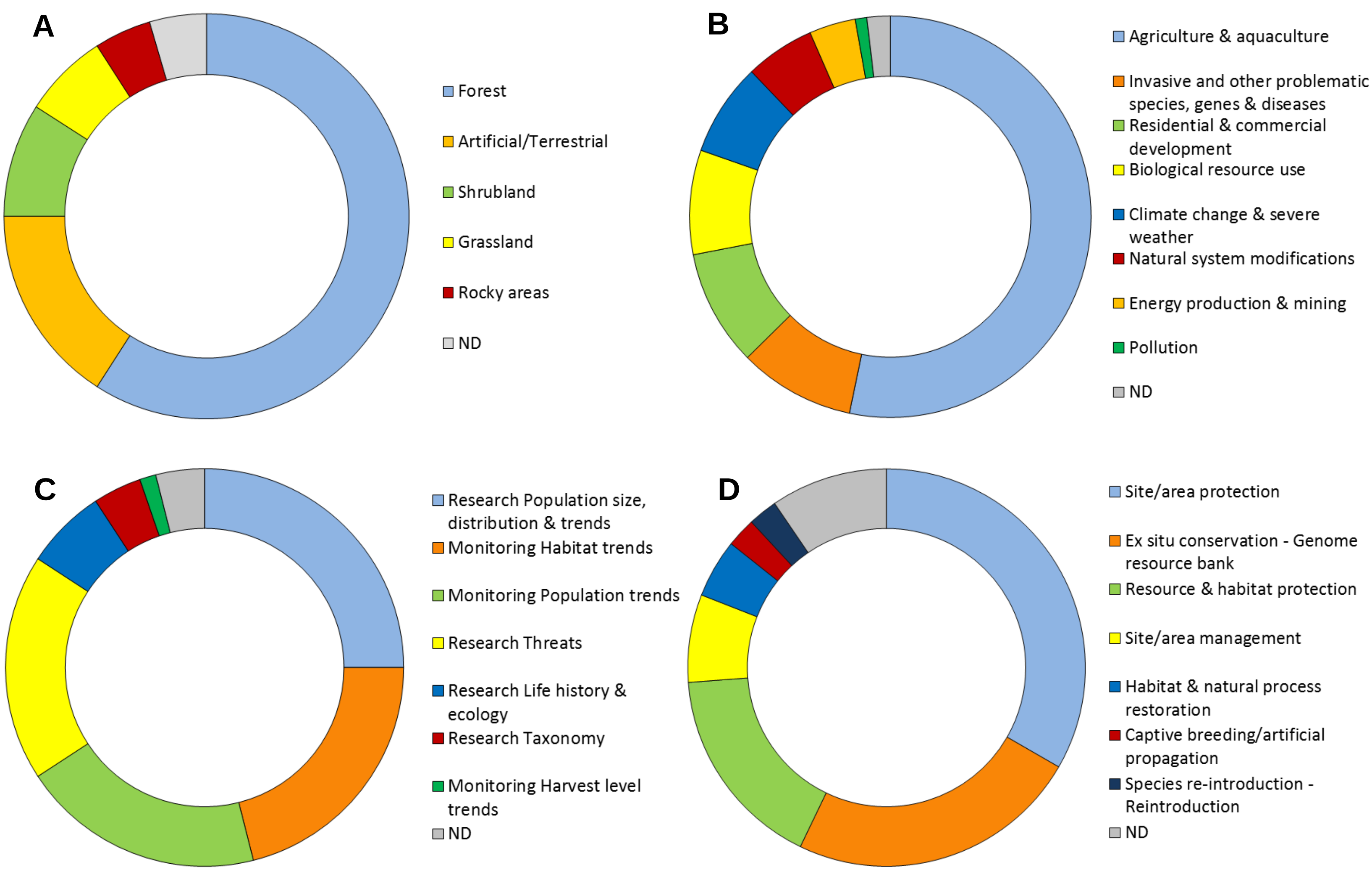

Figure 5.6. Habitats (A) and threats (B) of the threatened crop wild relative (CWR) taxa and main actions (C) and conservation (D) needed of the assessed CWR taxa. ND: No data.

Table 5.5. Main threats to the 97 priority Mexican crop wild relatives assessed in this study.

Threat	Threat subtype	Description	Frequency (no. of CWR)
Agriculture & aquaculture	Annual & perennial non-timber crops	Agro-industry farming	11
		Shifting agriculture	9
		Small-holder farming	21
	Livestock farming & ranching	Agro-industry grazing, ranching or farming	2
		Scale Unknown/Unrecorded	1
		Small-holder grazing, ranching or farming	13
Biological resource use	Gathering terrestrial plants	Intentional use (species is the target)	2
	Logging & wood harvesting	Intentional use: (large scale) [harvest]	1
		Intentional use: (subsistence/small scale) [harvest]	2
		Motivation Unknown/Unrecorded	1
		Unintentional effects: (large scale) [harvest]	2
		Unintentional effects: (subsistence/small scale) [harvest]	1
Climate change & severe weather	Droughts		3
	Habitat shifting & alteration		4
	Temperature extremes		1
Energy production & mining	Mining & quarrying		4
Invasive and other problematic species, genes & diseases	Introduced genetic material		6
	Invasive non-native/alien species/diseases		4
Natural system modifications	Fire & fire suppression	Increase in fire frequency/intensity	4
	Other ecosystem modifications		2
Pollution	Agricultural & forestry effluents	Herbicides and pesticides	1
Residential & commercial development	Housing & urban areas		10
ND*	NA	NA	2

*ND: No available data

5.5 DISCUSSION

The proportion of threatened taxa in this study is somewhat similar to that reported by Bilz *et al*. (2011) and Kell *et al*. (2012) for the European CWR. They found that about 11.5% of the taxa assessed (572) are threatened, 3.3% of which are CR, 4.4% are EN and 3.8% are VU. In this study, 23% of the taxa were classified as threatened, 1% are CR, 18% are EN and 5% are VU. The differences to the percentage of threatened Mexican CWR could be due to the different approaches taken (regional assessments were conducted for the European CWR), the number of CWR assessed and the composition of the crop gene pools. For example, a species classified as CR in a region, could be LC when assessed globally (IUCN, 2017). Similarly, the population of 28% of the Mexican CWR and 11% of the European CWR (Bilz *et al*., 2011; Kell *et al*., 2012) are in decline. Again, this difference might be the result of the different approaches undertaken in both analyses; for example, a species could have stable populations regionally, but declining range globally (IUCN, 2017).

The highest number of threatened CWR belong to the maize, potato, pitaya and pumpkin, as there were more taxa of these crop gene pools included in this study. The case of maize wild relatives is particularly important because the threatened taxa represent 24% of the total taxa assessed and about half (47%) of the assessed maize wild relatives. Furthermore, 6 (38%) of the threatened maize wild relative taxa are endemic to Mexico and some of them have a restricted geographic range, such as *Zea perennis* (Hitchc.) Reeves & Mangelsd., *Z. diploperennis* H. H. Iltis *et al.*, *Z. mays* subsp. *mexicana* Nobogame and Durango races and *Tripsacum zopilotense* Hern.-Xol. & Randolph.

The distribution of the threatened taxa corresponds to the distribution of the 310 priority CWR diversity observed previously (see Chapter 3) with taxon richness concentrated in the Central and Southern Mexico, along the main mountain ranges. Similarly, threatened taxa are distributed along the Trans-Mexican Volcanic Belt and the Sierra Madre del Sur, with highest diversity of taxa occurring in Oaxaca. As observed in Chapter 3 for the priority CWR taxa, the geographical distribution of the threatened CWR correspond to that of the flowering plant richness in Mexico reported by Villaseñor and Ortiz (2014) with the highest number of species identified in the states of Oaxaca, Chiapas, Veracruz, Jalisco, Guerrero and Michoacán, which also contain a high proportion of endemic species (up to 47%).

Villaseñor and Ortiz (2014) also reported that a high proportion of the Mexican floristic diversity occur in temperate forests, tropical dry forests and humid forests, thus it was expected that a high proportion of the threatened taxa (83%) occur in these forest ecosystems. Humid mountain forests are particularly important ecosystems because they hold a high proportion of biodiversity in a relatively reduced area, only about 0.6–1.6% of Mexico's territory (Villaseñor *et al.*, 2010; 2014; Sánchez-Ramos and Dirzo, 2014).

It is important to notice that loss of habitat and fragmentation are some of the main causes of loss of biodiversity in Mexico (Velázquez *et al.*, 2002; Benítez-Díaz and Bellot Rojas, 2003). It is estimated that about 95% of tropical forests and more that 50% of temperate forests in Mexico have been lost due to habitat destruction and fragmentation, as a result of the change of land use to agriculture, livestock farming and industry (Benítez-Díaz and Bellot Rojas, 2003). Humid mountain forest, for instance, has lost about half of its original coverage for grasslands or crop production, mainly coffee plantations (Cayuela *et al.*, 2006; Sánchez-Ramos and Dirzo, 2014). There is also a notable decline in habitat quality due to these changes (Martínez *et al.*, 2009). Kell *et al*. (2012) noted that farming in general should not be considered a threatened factor; in fact, arable lands, plantations and even urban areas are frequent habitats of CWR. Intensive and unsustainable farming, such as overgrazing, conversion of land to monocultures and over-use of fertilizers, herbicides and pesticides, however, are the major threats to CWR that grow in agricultural areas (Kell *et al*., 2012). For Mexican CWR, these habitats are the second most important habitat identified in the present study. Similarly, in the assessment of European CWR, intensified farming practices were identified as having the greatest impact on CWR, mainly intensified livestock farming (overgrazing) that affects 33% of the threatened taxa (Bilz *et al*., 2011; Kell *et al*., 2012). Other comparable pressures reported for threatened European and Mexican CWR are housing and urban development, invasive alien species and climate change. About 62% (60 taxa) of the CWR in Mexico are classified as LC, and 5% (5) are NT. These taxa are facing the same pressures as the threatened CWR, mainly small-holder grazing, ranching or farming, introduced genetic material or invasive species, climate change, residential and commercial development and unsustainable use of biological resources. According to the definition of IUCN (2017), the NT taxa are likely to become threatened in the near future if the pressures continue affecting their populations or habitats. Moreover, 12 of the taxa that are LC have decreasing populations. Thus, while these taxa are not threatened at present, they are at risk of genetic erosion.

Ponce-Reyes *et al.* (2012) estimated that 68% of humid mountain forests in Mexico could be lost by 2080 due to climate change. Other recent studies also revealed that climate change is expected to increase the risk of extinction of CWR (Jarvis *et al.*, 2008; Lira *et al.*, 2009; Ureta *et al.*, 2011; Aguirre-Gutiérrez *et al.*, 2017; Phillips *et al.*, 2017). For instance, up to 24 (47%) species of *Arachis* L. and 7 (7%) species of *Solanum* L. sect. *Petota* are expected to be extinct by mid-century (Jarvis *et al.*, 2008). In other study, 31

CWR taxa were identified as potentially threatened based on their projected geographic range loss under several climate change scenarios in Norway (Philllips *et al*., 2017). In Mexico, *Sechium hintonii* (Paul G. Wilson) C. Jeffrey, a wild relative of chayote, and *Cucurbita lundelliana* L. H. Bailey, a wild relative of pumpkin, are predicted to lose up to 93% of its current range and *S. chinantlense* Lira & F. Chiang might become extinct by 2060 (Lira *et al.*, 2009). Maize wild relatives *Zea perennis*, *Z. diploperennis*, and *Tripsacum intermedium* de Wet & J. R. Harlan are also predicted to become extinct by 2050 due to climate change (Ureta *et al.*, 2010).

In terms of establishing priorities for conservation, those taxa which populations are decreasing and that were assessed as threatened must be considered for immediate conservation action. Recommendations for improving the *in situ* and *ex situ* conservation of priority CWR in Mexico have already been proposed in Chapter 3. The more relevant conservation actions identified here were *in situ* and *ex situ* conservation, *i.e*. site and habitat protection and germplasm preservation in genebanks. Additionally, site management and restoration of habitat and natural processes were also identified as important actions.

5.6 CONCLUSIONS

Almost one quarter (23) of the 97 priority CWR occurring in Mexico were assessed as threatened, 16 (70%) of which are endemic to the country. Several factors determining the risk of extinction were identified. For example, non-sustainable agriculture, livestock farming and urban development are amongst the most common pressures to the threatened taxa. *In situ* and *ex situ* conservation (site and habitat protection and germplasm preservation in genebanks) were the most frequent actions identified for the conservation of threatened CWR. These results will further aid to the identification of conservation priorities during the establishment of conservation actions for CWR in Mexico, by recognizing the main threats to CWR and their potential impacts to the survival of taxa.

CHAPTER 6

ENHANCING THE UTILIZATION OF PRIORITY MEXICAN CROP WILD RELATIVES

6.1 ABSTRACT

Maize (*Zea mays* L.) and common bean (*Phaseolus vulgaris* L.) are two of the main commodities of Mexican agriculture. Their productivity is currently below their potential and, in addition, climate change is expected to have an effect on their global and national production, mainly due to variations in precipitation patterns and high temperatures. The use of new varieties is amongst the technologies proposed for climate change adaptation in agriculture. However, the availability of evaluation data of useful germplasm for crop breeding can be limited. Predictive characterization is an approach for searching potentially useful germplasm. I applied the ecogeographical filtering method using the aridity index of Lang (AI_L) to identify accessions of maize and common bean priority wild relatives for conservation in Mexico that are likely to present adaptive traits to high temperature and drought. A subset of 49 accessions of maize wild relatives (*Zea* spp.) and 61 accessions of common bean wild relatives (*Phaseolus* spp.) were selected as potential sources for drought tolerance, occurring in arid areas (AI_L<40). From those, 13 accession of *Zea mays* subsp. *parviglumis* and two *Phaseolus acutifolius* were identified as being particularly potential sources for heat tolerance. Applying this strategy, prospective accessions can be identified for breeding for abiotic stresses in combination with current or developing breeding technologies.

Keywords: Crop wild relatives, predictive characterization, drought tolerance, heat tolerance, maize, common bean.

6.2 INTRODUCTION

Maize (*Zea mays* L.) is the main commodity of Mexican agriculture, mainly used for tortillas. It alone represents about 22% of the total crop production in the country (data from SIAP, 2017). Over the past ten years, around 7 million hectares produced an average of 20.7 million tonnes per year (SIAP, 2017). Although maize productivity in Mexico has increased slightly in the past 10 years, with yields of 3.16 Ton/ha, it represents only about 60 % of the global average (SIAP, 2017; FAO, 2017). Common bean (*Phaseolus vulgaris* L.) is an important source of protein (FAO, 2017) and one of the top 10 crops in Mexico (SIAP, 2017). In average, it produced 1 million tonnes in 1.7 million hectares per year, during the last 10 years (data from SIAP, 2017). Common bean had yields in the past 10 years of 0.84 Ton/Ha in Mexico, comparable with the global average (SIAP, 2017; FAO, 2017), however, it is still below its potential compared to yields in other of the top five bean producer countries, such as United States of America, with average yields of 1.9 Ton/Ha (FAO, 2017).

Climate change is expected to have a significant impact on global crop production. Porter *et al*. (2014) suggested a decrease in yields of up to 2% per decade from 2030, with greater impacts towards the mid-century and Ray *et al.* (2015) predicted that 32–39 % of the global crop yield variability is associated with climate variability. The latter authors also suggested that specifically in Mexico about 27 % of yield variability could be explained by precipitation and temperature variability.

Several studies have been conducted to determine the degree of the impacts of climate change in maize and common bean productivity. In general, a variable decrease in yield is expected under future climatic conditions mainly due to irregular precipitation patterns and high temperatures, with declines of up to 50 % in maize yield by the end of the century (Jones and Thornton, 2003; Li *et al.*, 2014; Yin *et al.*, 2015; Msowoya *et al.*, 2016; Xu *et al.*, 2016; Luhunga, 2017). In Mexico, approximations suggest that maize yields will decline 5% by 2030 (Hertel *et al.*, 2010). For common bean, studies suggest that yield will be positively affected by the increase of CO_2 under climate change (Mourice *et al.*, 2016; Heinemann *et al.*, 2017); however, rising temperatures and drought will have negative impacts in productivity, with variable estimated reductions of up to 38 % (Prasad *et al.*, 2002; Costa *et al.*, 2009; Beebe *et al.*, 2011; El-Aal, *et al.*, 2011; Díaz-Ambrona *et al.*, 2013; Eitzinger *et al.*, 2017). Lobell and Gourdji (2012) suggested that climate change is highly unlikely to cause a net decline in global yields. Even in those conditions, maintaining a growing productivity rate that meets rising demand will still be a challenge (Lobell and Gourdji, 2012).

Many strategies have been implemented to increase maize and common bean productivity, including technologies developed by the National Institute of Forestry, Agricultural and Livestock Research (INIFAP, http://www.inifap.gob.mx/), and programs such as MasAgro in Mexico, led by the International Maize and Wheat Improvement Center (CIMMYT) and the Mexico's Secretary of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) (http://masagro.mx/en/), promoting the use of new varieties, diversification and conservation-agriculture systems, amongst other technologies. The development of stress tolerant varieties is one of the 10 best innovations for climate change adaptation in agriculture, proposed by the CGIAR centres (Dinesh *et al.*, 2017). Systematic evaluation of genebank accessions is one of the critical steps during the selection of suitable germplasm of a breeding program (Challinor *et al.*, 2016). However, screening for useful germplasm in seedbanks can be partial because there are limited availability of evaluation data (FAO, 2010; Street *et al.*, 2016), and the evaluation process requires techniques and resources that are often limited (Street *et al.*, 2016).

Predictive characterization method has been developed as an alternative approach for searching potentially useful germplasm (Street *et al.*, 2008; Thormann *et al.*, 2014). It attempts to identify correlations between ecological parameters of the provenance location with presence of associated adaptive traits (Street *et al.*, 2016). This method is based on the combined analysis of the environmental information of any accession that may be affecting a particular trait, under the premise that the selective pressures given by different environments lead to genetic differentiation (Thormann *et al.*, 2014). This way, it is possible to select accessions that are more likely to show specific adaptive responses by reducing the number of candidate accessions in field trials, thus increasing the possibility of utilization of genetic resources in germplasm banks (Mackay and Street, 2004; Thormann *et al.*, 2014). The method require the development of accurate model maps based on passport and climate data that enable the targeting of searches for germplasm with desired traits (Bari *et al.*, 2012). For example, the detection of associations between morphological trait and ecogeographic data in barley (Ensersen, 2010), to identify sources of resistance to stem rust in Bread Wheat and Durum Wheat (Endresen *et al.*, 2011), and to identify the traits associated with drought adaptation in *Vicia* spp., *Brassica* spp., *Beta* spp. and *Aegilops* spp. (Khazaei *et al.*, 2013; Street *et al.*, 2016; García *et al.*, 2017), etc. These studies demonstrate how traits associated with abiotic stresses can be identified when there is a lack of characterization and evaluation data (Mackay and Street, 2004; Street *et al.*, 2016).

There are three main methods to undertake predictive characterization: a) Biotic and abiotic variables and the expert knowledge to match suitable environmental conditions related to the trait of interest, b) Calibration method that uses the association of previous characterization and evaluation data of a set of locations with another different set of locations, and c) the Ecogeographical filtering method that uses the spatial distribution of the target taxon and ecogeographical characterization of the environmental conditions (adaptive scenarios) linked to the adaptive trait of interest (Street *et al.*, 2008; 2016; Parra-Quijano *et al*, 2012; Thormann *et al.*, 2014). These processes are cost effective and can be integrated to other characterization and evaluation activities as well as breeding programs (Thormann *et al.*, 2014).

The sustainable utilization of the conserved CWR diversity offers a means of underpinning their intrinsic value for food and agriculture (Magos Brehm *et al*., 2017). Some observed and potential traits of priority CWR of Mexico for the genetic improvement of crops have being reported (see Chapter 2). Ensuring that the conserved germplasm is accessible to breeders is a key element of any conservation planning process (Magos Brehm *et al*., 2017). Thus, as part of the CWR conservation strategy for Mexico, the objective of this study is to undertake a predictive characterization analysis of priority maize and common bean wild relatives based on ecogeographic information, to select accessions that are likely to present climate change adaptive traits, particularly those related to high temperature and low precipitation, making them available in the short-term for genetic improvement of the target crop species.

6.3 MATERIALS AND METHODS

Predictive characterization was carried out for the CWR of gene pools of maize (*Zea* spp.) and common bean (*Phaseolus* spp.) that were identified as priority for conservation in

Mexico (Contreras-Toledo *et al*., in press). I used wild relatives belonging to the primary, secondary and tertiary gene pool for common bean and primary and secondary gene pool for maize (Table 6.1). The tertiary gene pool for maize was not included due to the reduced availability of germplasm in the main sources (Supplementary Table 3.1). Occurrence records were collected previously from national and international genebank databases (see Chapter 3). Online digital databases included GENESYS (www.genesys-pgr.org), GBIF (www.gbif.org), USDA-NPGS-GRIN (www.ars-grin.gov), CIAT (http://ciat.cgiar.org) and REMIB (http://www.conabio.gob.mx) (Supplementary Table 3.1). Records lacking latitude and longitude but with location information were georeferenced.

I followed the methodology proposed in Thormann *et al.* (2016) as implemented by García *et al.* (2017) to identify accessions with potential adaptive tolerance to drought and heat, which are likely to be associated with climatic change in Mexico. The ecogeographical filtering method was applied by using the aridity index of Lang (AI_L) (Lang, 1920). AI_L was determined as follows: AI_L=MAP/MAT, where MAP is mean annual precipitation and MAT is mean annual temperature. Areas with $AI_L<40$ are considered arid; AI_L of 40–160 are humid; and $AI_L>160$ perhumid (Lang, 1920; Quan *et al*., 2013).

The layers representing the variables were obtained from WorldClim (www.worldclim.org) at a resolution of 30 arc-sec (approx. 1 x 1 Km at the Equator). The AI_L value was extracted for each accession using ArcMap 10.0 5 (ESRI, 2011). In order to reduce the extent of accessions to a manageable number, a final subset of 20% of the accessions for each gene pool with $AI_L<40$ were selected as potential drought tolerant (García *et al*., 2017). From this subset, the accessions with the highest mean annual temperature were identified as the potential heat tolerant.

Table 6.1. Crop wild relative taxa of common bean and maize used for the predictive characterization analysis (Source: ARS-GRIN, 2017).

Crop	Crop taxon	Gene pool		
		Primary	**Secondary**	**Tertiary**
Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*P. vulgaris* L. var. *aborigineus* (Burkart) Baudet	*P. albescens* McVaugh ex R. Ramírez & A. Delgado	*P. acutifolius* A. Gray
			P. coccineus L.	*P. acutifolius* A. Gray var. *acutifolius*
			P. dumosus Macfad	*P. acutifolius* A. Gray var. *tenuifolius* A. Gray
				P. angustissimus A. Gray
				P. carteri Freytag & Debouck
				P. filiformis Benth.
				P. maculatus Scheele subsp. *ritensis* (M. E. Jones) Freytag
				P. parvifolius Freytag
Maize	*Zea mays* L. subsp. *mays*	*Z. mays* L. subsp. *mexicana* (Schrad.) H. H. Iltis	*Z. diploperennis* H. H. Iltis *et al.*	
		Z. mays L. subsp. *parviglumis* H. H. Iltis & Doebley	*Z. luxurians* (Durieu & Asch.) R. M. Bird	
			Z. perennis (Hitchc.) Reeves & Mangelsd.	

6.4 RESULTS

Accessions of 2 maize wild relatives (*Zea mays* subsp. *parviglumis* and *Z. mays* subsp. *mexicana*) and 6 common bean wild relatives (*Phaseolus acutifolius, P. acutifolius* var. *acutifolius, P. acutifolius* var. *tenuifolius*, *P. carteri* and *P. coccineus and P. filiformis*) were identified as potential drought tolerant (Figure 6.1). A total of 110 accessions (49 and 61 accessions of maize and common bean wild relatives, respectively) were identified in areas with an AI_L<40 (Figure 6.1). They represent approximately 5% of the accessions of maize and common bean wild relatives from the dataset. *Z. mays* subsp. *parviglumis* is the taxon with the highest number of accessions (36), while *P. acutifolius* var. *tenuifolius, P. carteri* and *P. coccineus* are represented by one accession each. Figure 6.2 shows the predominantly northern distribution of the 110 accessions of maize and common bean wild relatives relatives identified, not surprisingly this region has the least rainfall in Mexico. About 70% of the accessions (43) of *Phaseolus* spp. were found in Sonora and Durango, and about 63% of the accessions (31) of *Zea* spp. were found in Jalisco and Michoacán (Figure 6.3).

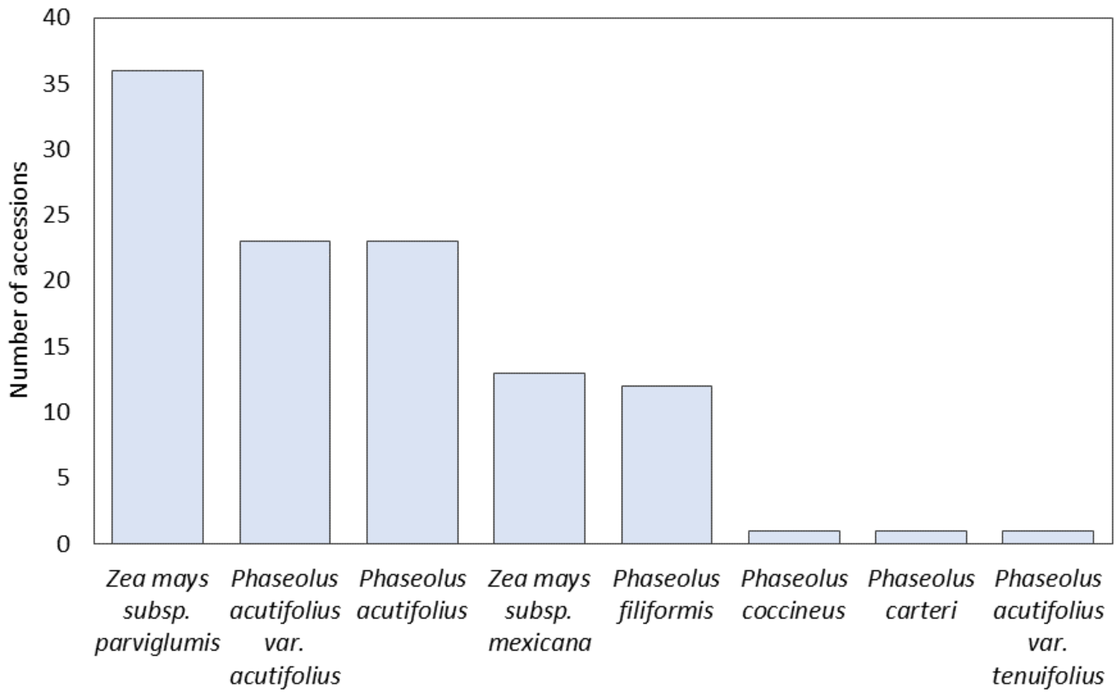

Figure 6.1. Number of accessions per crop wild relative taxa (*Zea* spp. and *Phaseolus* spp.) that were identified as potential drought tolerant in Mexico based on the Aridity index (AI_L<40).

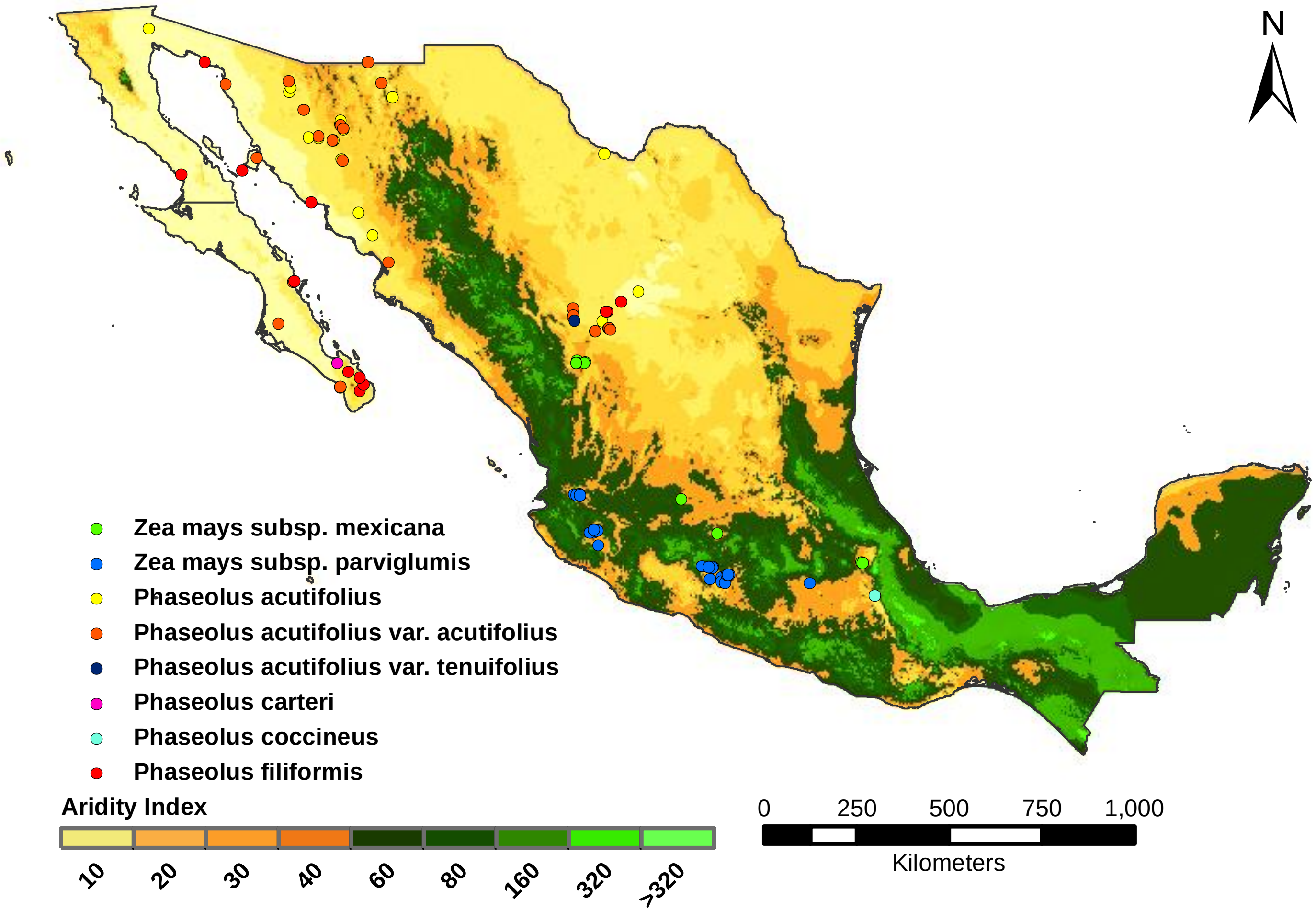

Figure 6.2. Aridity index (AI_L) in Mexico and distribution of crop wild relatives of maize (*Zea* spp.) and common bean (*Phaseolus* spp.) in areas with AI_L<40. Map was projected with the WGS 1984 coordinate system. Cell size is 30 arc-sec (approx. 1 x 1 Km.).

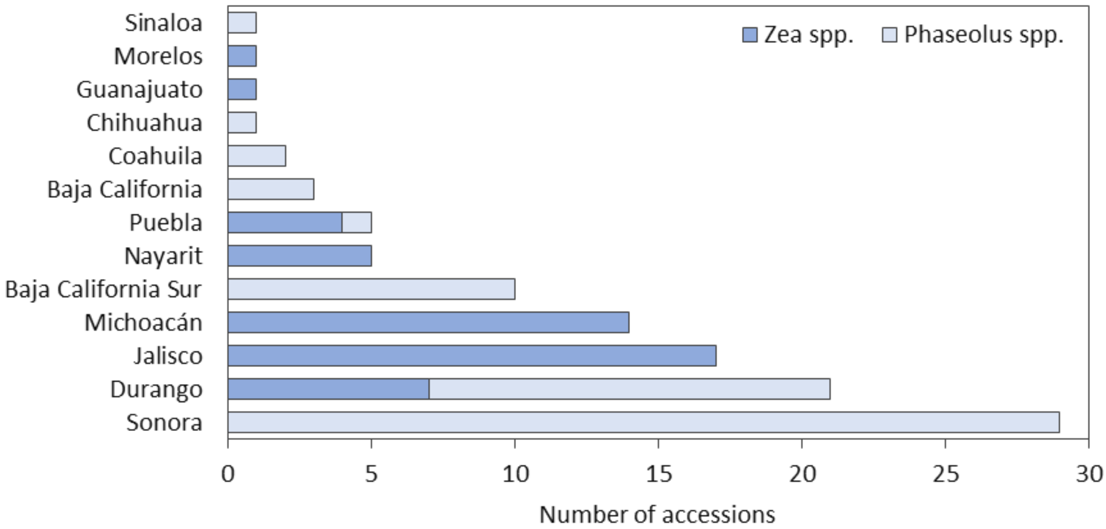

Figure 6.3. Number of accessions of crop wild relatives identified as potential drought tolerant based on the Aridity index (AI_L<40) in Mexico per country state.

The temperature in the areas of occurrence range from 15 to 28°C and precipitation ranges from 502 to 1,010 mm for maize wild relatives, whereas common bean wild relatives occur in areas with temperatures from 15 to 25°C and precipitation from 66 to 480 mm (Figure 6.4). Four accessions of *Z. mays* subsp. *parviglumis* and two accessions of *P. acutifolius* ooccur in areas with the highest temperature (28 and 25°C, respectively) (Supplementary Table 6.1). One accession of *Z. mays* subsp. *mexicana* and one accession of *P. acutifolius* occur in areas with the lowest precipitation (502 and 66 mm, respectively) (Supplementary Table 6.1). In general, *Zea* spp. occur in areas with AI_L 29 and 37, and *Phaseolus* spp. occur in areas with lower AI_L, between 3 and 21 (Figure 6.5). Four accessions of *Z. mays* subsp. *parviglumis* and *Z. mays* subsp. *mexicana* were found in areas with the lowest AI_L for maize wild relatives (29) (Table 6.2) and 14 accessions of *P. acutifolius*, *P. acutifolius* var. *acutifolius* and *P. filiformis* were found in areas with the lowest AI_L (<10) for common bean wild relatives (Table 6.3).

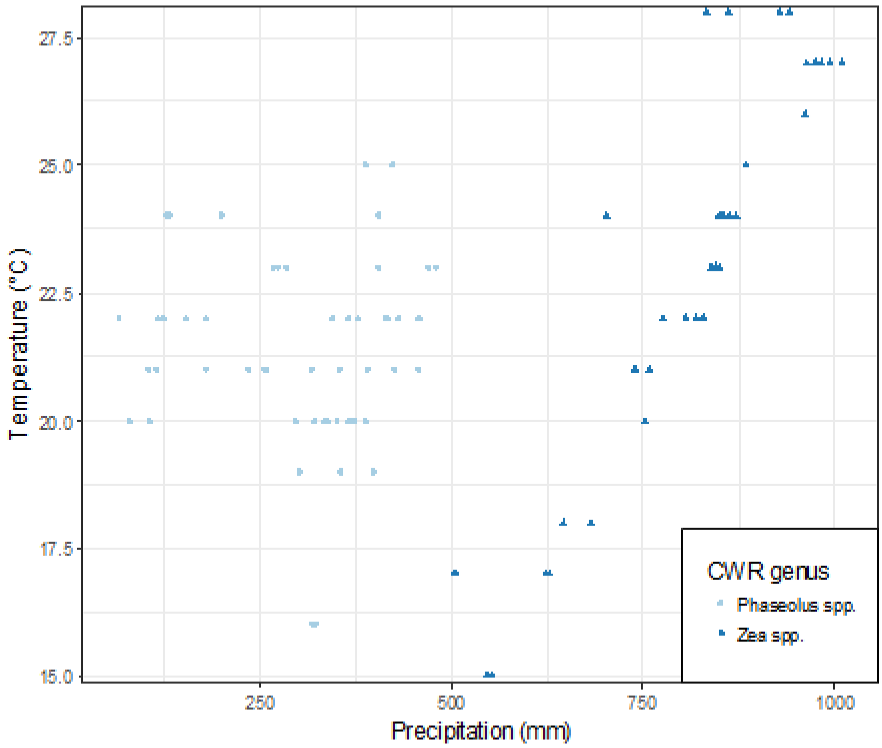

Figure 6.4. Temperature (°C) and precipitation (mm) in areas of occurrence of maize (*Zea* spp.) and common bean (*Phaseolus* spp.) wild relatives identified as potential drought tolerant based on the Aridity index (AI_L<40) in Mexico.

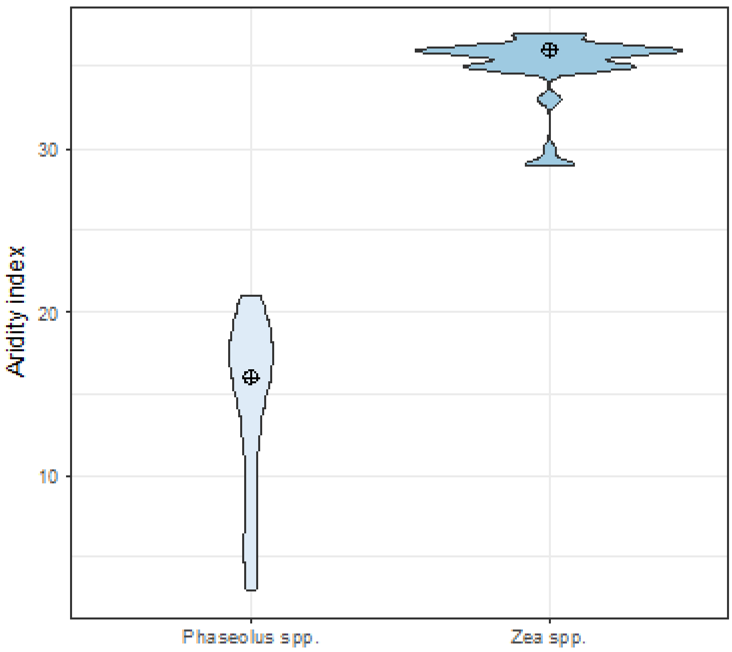

Figure 6.5. Aridity index (AI_L) per crop wild relative genus (*Zea* spp. and *Phaseolus* spp.) identified as potential drought tolerant occurring in Mexico.

The accessions are held by at least eight institutes in Mexico, United States of America and Colombia (Figure 6.6). Most of the accessions are preserved by the Mexican National Institute of Forestry, Agricultural and Livestock Research (INIFAP), holding 41 accession (23 of *Zea* spp. and 18 of *Phaseolus* spp.), and the International Center for Tropical Agriculture (CIAT), holding 30 accessions of *Phaseolus* spp. (Figure 6.6).

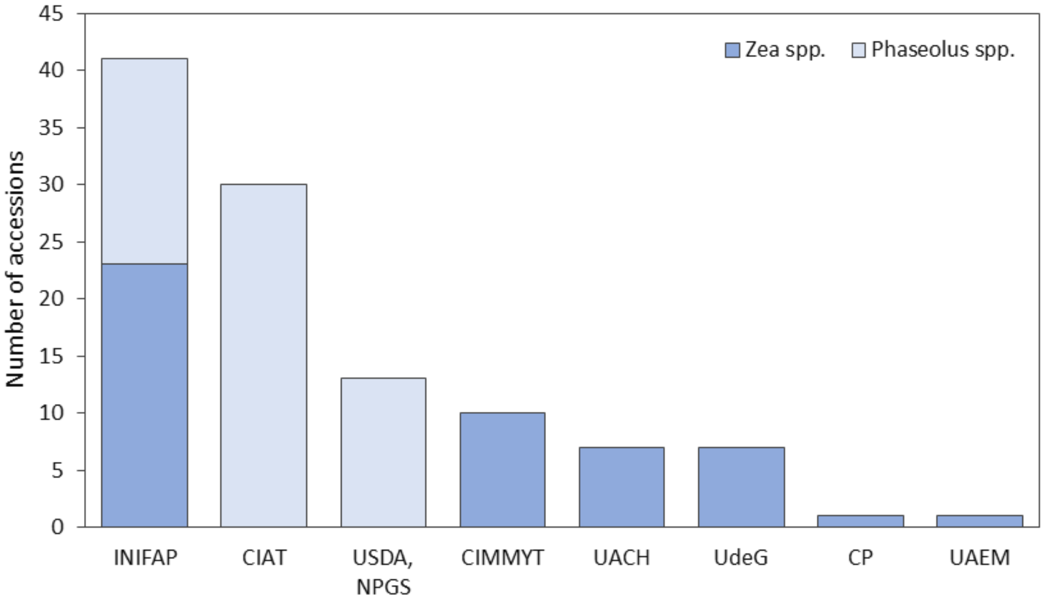

Figure 6.6. Number of accessions of crop wild relative taxa (*Zea* spp. and *Phaseolus* spp.) that were identified as potential drought tolerant in Mexico based on the Aridity index (AI_L<40), per holding institute.

Table 6.2. Accessions of maize wild relatives occurring in areas with aridity index (AI_L) of <40 in Mexico that were identified as potential drought tolerant.

Accession number	**Institute**	**CWR taxon**	**Location**	**AI_L***	**Source**
8760	CIMMYT	*Z. mays* subsp. *parviglumis*	Michoacán	36	a
11392	CIMMYT	*Z. mays* subsp. *parviglumis*	Durango	36	a
27463**	CIMMYT	*Z. mays* subsp. *parviglumis*	Michoacán	30	a
27464**	CIMMYT	*Z. mays* subsp. *parviglumis*	Michoacán	29	a
27530	CIMMYT	*Z. mays* subsp. *parviglumis*	Jalisco	29	a
27545	CIMMYT	*Z. mays* subsp. *parviglumis*	Nayarit	36	a
27546	CIMMYT	*Z. mays* subsp. *parviglumis*	Jalisco	35	a
27549	CIMMYT	*Z. mays* subsp. *parviglumis*	Jalisco	35	a
27550	CIMMYT	*Z. mays* subsp. *parviglumis*	Jalisco	37	a
13791	CIMMYT	*Z. mays* subsp. *parviglumis*	Puebla	36	a
K-84-2	CP	*Z. mays* subsp. *parviglumis*	Nayarit	35	b
JSG-187	INIFAP	*Z. mays* subsp. *parviglumis*	Michoacán	37	c
JSG-190	INIFAP	*Z. mays* subsp. *parviglumis*	Michoacán	36	b
JSG-205	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	35	b
JSG-435	INIFAP	*Z. mays* subsp. *mexicana*	Puebla	36	b
JSG-JMHC-625	INIFAP	*Z. mays* subsp. *mexicana*	Puebla	36	b
JSG-JMHC-626	INIFAP	*Z. mays* subsp. *mexicana*	Puebla	36	b
JSG-JRP-ERG-543	INIFAP	*Z. mays* subsp. *parviglumis*	Nayarit	36	c
JSG-LOS-123**	INIFAP	*Z. mays* subsp. *parviglumis*	Michoacán	33	c
JSG-LOS-44	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	36	c
JSG-LOS-55	INIFAP	*Z. mays* subsp. *mexicana*	Guanajuato	37	b
JSG-LOS-86	INIFAP	*Z. mays* subsp. *mexicana*	Durango	36	b
JSG-LOS-88	INIFAP	*Z. mays* subsp. *mexicana*	Durango	35	c
JSG-MAS-264	INIFAP	*Z. mays* subsp. *parviglumis*	Nayarit	35	c
JSG-RMM-428	INIFAP	*Z. mays* subsp. *mexicana*	Durango	36	b
RMM-216	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	36	b
RMM-217	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	36	b
RMM-218	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	35	b
RMM-236	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	35	b
RMM-3	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	36	b
RMM-FJSM-201	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	36	b
RMM-FJSM-211	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	35	b
RMM-FJSM-212	INIFAP	*Z. mays* subsp. *parviglumis*	Jalisco	35	b
VAVM-T-03	INIFAP	*Z. mays* subsp. *parviglumis*	Nayarit	35	b
DMA-2008-1	UAEM	*Z. mays* subsp. *parviglumis*	Morelos	36	b
JACV-T-054	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	36	b
JACV-T-055	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	36	b
JACV-T-056	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	36	b

Table 6.2. (continued)

Accession number	Institute	CWR taxon	Location	AI_L*	Source
JACV-T-057	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	35	b
JACV-T-069	UACH	*Z. mays* subsp. *mexicana*	Michoacán	37	b
JACV-T-074**	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	33	b
JACV-T-075	UACH	*Z. mays* subsp. *parviglumis*	Michoacán	35	b
JSG-RMM-LCL-514	UdeG	*Z. mays* subsp. *parviglumis*	Michoacán	36	b
JSG-SRV-EAM-705	UdeG	*Z. mays* subsp. *mexicana*	Durango	29	b
JSG-SRV-EAM-708	UdeG	*Z. mays* subsp. *mexicana*	Durango	29	b
JSG-SRV-EAM-710	UdeG	*Z. mays* subsp. *mexicana*	Durango	36	b
RMM-2	UdeG	*Z. mays* subsp. *parviglumis*	Jalisco	37	b
RMM-228	UdeG	*Z. mays* subsp. *parviglumis*	Jalisco	37	b
RMM-5	UdeG	*Z. mays* subsp. *parviglumis*	Jalisco	35	b

* Aridity index of Lang. ** Highest mean annual temperature (28°C). CIMMYT: International Maize and Wheat Improvement Center; CP: Colegio de Postgraduados; INIFAP: National Institute of Forestry, Agricultural and Livestock Research; UAEM: Universidad Autónoma del Estado de Morelos; UACH: Universidad Autónoma Chapingo; UdeG: Universidad de Guadalajara.
a: http://mgb.cimmyt.org/gringlobal/search.aspx.
b: http://www.biodiversidad.gob.mx/genes/monitoreo_teocintles.html.
c: http://www.biodiversidad.gob.mx/genes/proyectoMaices.html.

Table 6.3. Accessions of common bean wild relatives occurring in areas with aridity index (AI_L) of <40 in Mexico that were identified as potential drought tolerant.

Accession number	Institute	CWR taxon	Location	AI_L*	Source
G35454	CIAT	*P. coccineus*	Puebla	20	a
G40085	CIAT	*P. acutifolius* var. *tenuifolius*	Durango	19	a
G40089	CIAT	*P. acutifolius* var. *acutifolius*	Durango	18	a
G40108	CIAT	*P. acutifolius* var. *acutifolius*	Durango	18	a
G40112	CIAT	*P. acutifolius*	Durango	18	a
G40116	CIAT	*P. acutifolius*	Sonora	3	a
G40142	CIAT	*P. acutifolius*	Sonora	16	a
G40143	CIAT	*P. acutifolius*	Sonora	16	a
G40144	CIAT	*P. acutifolius*	Sonora	17	a
G40145	CIAT	*P. acutifolius*	Sonora	18	a
G40147	CIAT	*P. acutifolius*	Sonora	20	a
G40148	CIAT	*P. acutifolius*	Sonora	16	a
G40149	CIAT	*P. acutifolius*	Sonora	17	a
G40150	CIAT	*P. acutifolius*	Sonora	19	a
G40151	CIAT	*P. acutifolius*	Sonora	21	a
G40206	CIAT	*P. acutifolius* var. *acutifolius*	Durango	16	a
G40238	CIAT	*P. acutifolius*	Coahuila	8	a
G40242	CIAT	*P. acutifolius*	Durango	15	a
G40275	CIAT	*P. acutifolius*	Sonora	19	a
G40276	CIAT	*P. acutifolius*	Sonora	20	a
G40287	CIAT	*P. acutifolius*	Sonora	15	a
G40288	CIAT	*P. acutifolius*	Sonora	20	a
G40289**	CIAT	*P. acutifolius*	Sonora	16	a
G40686	CIAT	*P. filiformis*	BCS	18	a
G40687	CIAT	*P. filiformis*	Sonora	5	a
G40690	CIAT	*P. filiformis*	Coahuila	11	a
G40699	CIAT	*P. filiformis*	BCS	12	a
G40700	CIAT	*P. filiformis*	BCS	11	a
G40701	CIAT	*P. filiformis*	BC	5	a
G40702	CIAT	*P. filiformis*	Sonora	8	a
10009	INIFAP-CG	*P. acutifolius* var. *acutifolius*	BCS	5	b
10033	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Durango	16	b
10035	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Durango	18	b
10041	INIFAP-CG	*P. acutifolius* var. *acutifolius*	BC	5	b
10042	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Durango	12	b
10050	INIFAP-CG	*P. acutifolius* var. *acutifolius*	BCS	5	b
10051	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Durango	18	b
10062	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	15	b
10073	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	20	b
10605	INIFAP-CG	*P. filiformis*	Durango	12	b

Table 6.3. (continued)

Accession number	Institute	CWR taxon	Location	AI$_L$*	Source
11949	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Durango	18	b
12001	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	16	b
12002	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	17	b
12005	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	18	b
12008	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	20	b
12009	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	16	b
12014	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	18	b
12025	INIFAP-CG	*P. acutifolius* var. *acutifolius*	Sonora	4	b
PI 535216	USDA, NPGS	*P. acutifolius*	BCS	8	c
PI 535216	USDA, NPGS	*P. acutifolius* var. *acutifolius*	BCS	8	c
PI 632353	USDA, NPGS	*P. filiformis*	Durango	12	c
PI 638837	USDA, NPGS	*P. acutifolius*	Chihuahua	14	c
PI 263590, G40045	USDA, NPGS, CIAT	*P. acutifolius* var. *acutifolius*	Sonora	20	c, a
PI 319438, G40049**	USDA, NPGS, CIAT	*P. acutifolius*	Sonora	15	c, a
PI 319445, G40055	USDA, NPGS, CIAT	*P. acutifolius* var. *acutifolius*	Sinaloa	16	c, a
PI 535200, G40086	USDA, NPGS, CIAT	*P. acutifolius*	Durango	18	c, a
PI 535216, G40274	USDA, NPGS, CIAT	*P. acutifolius*	BCS	7	c, a
PI 535293, G40507	USDA, NPGS, CIAT	*P. filiformis*	BC	5	c, a
PI 535297, G40549	USDA, NPGS, CIAT	*P. filiformis*	BCS	17	c, a
PI 535307, G40662	USDA, NPGS, CIAT	*P. filiformis*	Sonora	3	c, a
PI 653247, G40675	USDA, NPGS, CIAT	*P. carteri*	BCS	11	c, a

* Aridity index of Lang; ** Highest mean annual temperature (25°C). CIAT: International Center for Tropical Agriculture; INIFAP-CG: National Institute of Forestry, Agricultural and Livestock Research- Germplasm Collection; USDA, NPGS: U.S. National Plant Germplasm System; BC: Baja California; BCS: Baja California Sur.

a: http://genebank.ciat.cgiar.org/genebank/beancollection.do.

b: http://www.snib.mx/iptconabio/resource?r=SNIB-P047-P047703F-ND.

c: https://npgsweb.ars-grin.gov/gringlobal/search.aspx.

6.5 DISCUSION

Maize and common bean adapt to a range of climates in Mexico. They are cultivated in tropical, subtropical and temperate regions (Reyes *et al.*, 2008; Ruiz *et al.*, 2013). The optimal average temperature for the cultivation of maize and common cultivation in Mexico is 18–24ºC (Ruiz *et al.*, 2013; SIAP, 2018). Maize requires annual precipitations of 700–1100 mm while common bean requires 600–2000 mm (Ruiz *et al.*, 2013; SIAP, 2018). Teosinte (wild relatives of maize) populations were previously characterized by Torres-Peña *et al.* (2015). They found that temperature is one of the most important climatic variables for teosintes. *Z. mays* subsp. *parviglumis* was found in areas with mean annual temperatures of 21.6°C and annual precipitation of 1111mm. For *Z. mays* subsp. *mexicana*, the temperature ranged from 15.2 to 17.7°C and precipitation ranged from 482 to 1084mm. These values are within the ranges found in the present work. Here, 13 accessions of *Z. mays* subsp. *parviglumis* and two *P. acutifolius* were identified with mean annual temperatures above the optimal for the crops. This suggests that these accessions are potential germplasm for drought and heat tolerance.

Breeding drought and heat tolerance resistance into common bean could increase the suitability of the production area that is currently not suitable by 31% and 54%, respectively (Beebe *et al.*, 2011). This is particularly important due to the predicted loss of 67.6% in suitable area for common bean production in Mexico due to climate change (Medina-García *et al.*, 2016). Similarly, reductions of 30% (Ureta *et al.*, 2012) and up to 45% (Ramirez-Cabral *et al.*, 2017) in suitable production area have been predicted for maize. It was observed that without adaptation maize yield could decrease 13.2–19.1%, while by adopting adaptation strategies (such as using high-temperature tolerant varieties) yield could increase up to 45.6% (Tao and Zhang, 2010). In a similar study, positive yield increases in maize (20–24%) were reported with the adoption of new adaptation technologies (drought and heat tolerant varieties) (Islam *et al.*, 2016).

Maize wild relatives are known to possess extensive potential to confer tolerance to biotic and abiotic stresses to the crop (Hossain *et al.*, 2016; Maazou *et al.*, 2017). Maize wild relatives identified in this study belong to the primary gene pool of the crop, in particular, *Z. mays* subsp. *mexicana* and *Z. mays* subsp. *parviglumis*. The former has been previously identified as potential gene donor for yield improvement in maize (Cohen and Galinat, 1984; Wang *et al.*, 2008), quality traits (Pasztor and Borsos, 1990; Wang *et al.*, 2008; 2014), disease and pest resistance (Ramirez, 1997; Pasztor and Borsos, 1990) and drought tolerance (Lu *et al.*, 2017). *Z. mays* subsp. *parviglumis* has recently been used for kernel composition improvement of maize (Liu *et al.*, 2016; Karn *et al.*, 2017) and disease resistance (Zhang *et al.*, 2017).

Most of the accessions (75%) of common bean wild relatives identified in the present study as potential drought and heat tolerance trait donors belong to *P. acutifolius*. This species has previously been used in genetic improvement of common bean, mainly to confer disease resistance (Scott and Michaels, 1992; Singh and Muñoz, 1999; Singh, 2001; Porch *et al.*, 2013) and its potential to confer drought and heat tolerance has already been recognized (Mejía-Jiménez *et al.*, 1994; Singh, 2001; Munoz *et al.*, 2004; Rainey and Griffiths, 2005; Porch *et al.*, 2009; 2013; Beebe *et al.*, 2013; Gujaria-Verma *et al.*, 2016). In a recent study, abiotic stresses tolerance from *P. acutifolius* was successfully conferred to common bean (Souter *et al.*, 2017). All these introgression advances increase the potential utilization of the selected accessions in the present study in crop breeding of both crops, maize and common bean. The candidate accessions selected through predictive characterization can be included for field trials to ensure the presence of the target trait, thus allowing a more efficiently utilization of resources for field screening (Thormann *et al.* 2014)

6.6 CONCLUSIONS

Predictive characterization is a practical method to identify potential germplasm that can be used in the genetic improvement of crops and it is a more time and cost-effective approach than the phenotypic characterization and evaluation (Thormann *et al*., 2016). Applying this strategy, a total of 49 accessions of 2 maize wild relatives and 61 accessions of 6 common bean wild relatives were identified as potentially useful for drought and heat tolerance, based on the aridity index for Mexico. After testing the selected accessions in field trials, the successful candidates can be used in combination with current or developing breeding technologies to increase adaptability and reduce the negative impacts of high temperature and drought in productivity of these crops.

CHAPTER 7

GENERAL DISCUSION

7.1 CWR diversity, conservation and use in Mexico: a conservation strategy

The information presented here contributes to the development of a national strategy for the systematic long-term conservation of priority Mexican CWR while enhancing their sustainable utilization in crop breeding, to recognize future actions towards the achievement of the targets of the Mexican Strategy for Plant Conservation of 2012–2030 (CONABIO, 2012) and the Convention on Biological Diversity (CBD, 1992) to reduce the genetic erosion and conserve the genetic diversity of national plant genetic resources. The conservation of the agrobiodiversity in Mexico has been historically extensive, not only because it is an important Vavilov centre of origin (Vavilov, 1992), domestication and diversification of many of the worldwide most important crops, but also because there is a close cultural relationship between native human communities and the local biodiversity (Molina and Córdova, 2006; Acevedo Gasman *et al*., 2009; Ávila Blomber, 2008). Yet, further studies to recognize the conservation needs are required for an effective preservation of Mexican CWR diversity.

In the model for the development of a national strategic action plan (Magos Brehm *et al*., 2017) that was implemented here, the establishment of national conservation priorities was the first step. Given the broad plant diversity present in Mexico (Villaseñor and Ortiz, 2014; Villaseñor, 2016), reducing the number of CWR to be included in the action plan will ensure active conservation to be effectively implemented (Magos Brehm *et al*., 2017). There is a growing evidence of the utility of this approach for identification of conservation priorities. It has previously applied for CWR conservation planning at national level in other countries, *e.g*. in Portugal (Magos Brehm *et al*., 2010), Benin (Idohou *et al.*, 2012); Finland (Fitzgerald *et al.*, 2013), the United States of America (Khoury *et al.* 2013), Czech Republic (Taylor *et al.*, 2013), Spain (Rubio Teso *et al*., 2012), England (Fielder *et al.*, 2015), China (Kell *et al.*, 2015), Jordan (Magos Brehm *et al*., 2016), Norway (Phillips *et al*., 2016), but also at regional level (*e.g.* Lala *et al.*, 2017) and at global level (Vincent *et al.*, 2013). Although the socio-economic value of the related crop, the known or potential utilization in crop improvement and the relative threat status of the CWR are recognized as the main criteria for assessing prioritization on conservation planning (Ford-Lloyd *et al*., 2008; Maxted *et al*., 2012; Kell *et al*., 2017), there is no specific set of criteria to be applied as a general basis. The criteria will depend on the objectives of the conservation, the availability of information and the accessibility of resources for implementation (Magos Brehm *et al*., 2017). In the present study, the selection criteria associated with economic importance of the related crop, the relatively close relationship to the crop, the threatened status, and nutritional, geographic and socio-economic factors, reflect the extensive plant diversity in Mexico that was to be evaluated. Moreover, the ranking method used in the present thesis allowed the assignment of different levels of priority to each CWR. An initial set consisted of the top 310 priority CWR were then selected for immediate *in situ* and *ex situ* conservation action (Chapter 2). Important taxa not considered as immediate priorities at this stage can be considered for conservation subsequently (Magos Brehm *et al*., 2017).

Once the priorities were identified, the strategic action plan focused on the establishment of *in situ* and *ex situ* conservation actions. The results from the distribution and ecogeographic diversity analyses and from the analysis of the impacts of climate change on priority CWR were used to detect priority target sites for complementary *in situ* and *ex situ* conservation. The limited economic resources for the management of *ex situ* conservation of plant germplasm is a general concern in Mexican genebanks and only a few are fully equipped to provide long-term conservation (Molina and Córdova, 2006; Acevedo Gasman *et al*., 2009). Furthermore, not all national protected areas (PA) provide the appropriate management required for the active *in situ* conservation of biodiversity, including CWR, and a revision of the management plans are necessary (Sánchez-Cordero *et al.*, 2011). In the study of Sánchez-Cordero *et al.* (2011), they reported that the natural vegetation of most of the federal and state protected areas was reduced due to anthropogenic changes in the land use and that up to 43% of the existing PA do not have the means to maintain ecological integrity, *i.e*. they were considered ineffective to meet the conservation objectives. From the 182 PA currently in Mexico, the Biosphere Reserve Sierra de Manantlán in Jalisco is the only established to formally conserve *Zea diploperennis* Iltis, Doebley & R. Guzman, a secondary wild relative of maize (UNESCO, 2011). It is because of those reasons that the present study focused not only on assessing the distribution of CWR diversity, but also on exploring other methods to increase both *ex situ* and *in situ* representativeness of the genetic diversity across the distribution of target CWR taxa based on ecogeographic diversity (Maxted *et al*., 1995; 2008; Parra-Quijano *et al*., 2008; 2011a, b; 2012b, c; 2016; Ramírez-Villegas *et al*., 2010; Castañeda-Álvarez *et al.*, 2011; Phillips *et al*., 2016). That means that the genetic diversity that is to be conserved represents the overall existing genetic variation present in nature across the distribution of target taxa (Maxted *et al*., 1995; Castañeda-Álvarez *et al*., 2011; Parra-

Quijano *et al.*, 2008). Ecogeographic representativeness can indirectly reflect genetic representativeness (Greene and Hart 1999; Steiner, 1999), particularly when morphological descriptors, molecular markers or agronomic evaluation data is not available to analyse the genetic diversity (Parra-Quijano *et al.*, 2008). Parra-Quijano *et al*. (2006) have developed a series of tools incorporated in CAPFITOGEN (http://www.capfitogen.net/en/) to help analyse the distribution of diversity and improve the ecogeographic representativeness based on Ecogeographic Land Characterization (ELC) maps, describing the different environmental conditions for plant adaptation. As part of the Mexican CWR conservation strategy, priority sites for complementary *in situ* and *ex situ* conservation were recognised for 308 priority CWR taxa. The results are presented in detail in Chapter 3 and included the identification of 110 taxa for further field surveying and *ex situ* collection and the identification of potential collection sites containing highest collection priority. Moreover, the identification of 64 potential genetic reserves to ensure diversity representation of all taxa was presented as part of the *in situ* conservation, highlighting the top 10 taxon rich sites for the establishment of genetic reserves, 9 of them are within current PA. *In situ* and *ex situ* conservation actions were also recommended for those taxa which ecogeographic diversity was underrepresented in PA. With the implementation of the recommended management in these sites as suggested by Maxted *et al*. (2008), Dulloo *et al*., (2008) and Iriondo *et al*. (2012), including monitoring of populations, control of invasive species and control of disturbances, the conservation of 60% of the Mexican priority CWR taxa will be guaranteed.

The *in situ* and *ex situ* conservation strategies must consider current and future climate conditions to ensure long-term preservation of diversity (Dulloo *et al*., 2008; Magos Brehm *et al*., 2017). There is significant evidence that climate change is affecting crop productivity (Kang *et al.*, 2009; Li *et al*., 2009; Elad *et al*., 2014; Hatfield and Prueger, 2015; Mora *et al*., 2015; Das *et al*., 2016) and placing CWR at risk of extinction (Jarvis *et al*., 2008; Ureta *et al*., 2011; Aguirre-Gutiérrez *et al*., 2017; Phillips *et al*., 2017). After a comprehensive validation analysis of 308 species distribution models, 225 priority CWR taxa were evaluated to estimate the impacts of four possible climate change conditions: mid-future with and intermediate emissions scenario (RPC4.5, 2041-2060), mid-future with a high emissions scenario (RPC8.5, 2041-2060), distant-future with an intermediate emissions scenario (RPC4.5, 2061-2080) and a distant-future with a high emissions scenario (RPC8.5, 2061-2080) (Chapter 4). The results showed that, overall, 44 CWR taxa are predicted to become threatened due to climate change, showing a decrease in their distribution range. Moreover, the distribution range of wild relatives of economically important crops, such as agave, amaranth and maize were amongst the most negatively impacted. Immediate *in situ* and *ex situ* conservation actions were recommended for these taxa in order to reduce the risk of loss of their diversity. The selection and establishment of PA will be subject to the changes in species composition and population dynamics, targeting sites where populations are maintained in current and future climatic conditions (Dulloo *et al*., 2008). Conservation outside PA were also recommended in Chapter 4, particularly for those taxa that are likely to extend their distribution range in the future. *Ex situ* conservation will be prioritized for those Mexican CWR taxa that are likely to reduce their population size under future climates to ensure the preservation of their current diversity.

The relative threat status of CWR are a common criterion when establishing priorities for conservation (Ford-Lloyd *et al*., 2008; Maxted and Kell, 2009; Magos Brehm *et al.*, 2010; Kell *et al*., 2012; Kell *et al.*, 2017; Magos Brehm *et al.*, 2017). In Mexico, the Official Norm for environmental protection of native wild plant and animal species (NOM-059-SEMARNAT-2010) has published a list of about 1,000 native plant species that have been evaluated to determined their risk of extinction (DOF, 2015), a small number considering the country's rich plant diversity. Threat assessments are required to further prioritize the CWR in the national inventory. Chapter 5 was focussed on the analysis of priority CWR using global threat assessments conducted using the IUCN Red List Categories and Criteria (IUCN, 2001) which is now widely accepted and implemented in different groups of plants. For example, Bilz *et al*. (2011) and Kell *et al*. (2012) reported a comprehensive study of 572 European CWR. In the present thesis, the threat status of 97 CWR taxa out of the 310 Mexican priority CWR in the inventory were assessed. Novel assessments were conducted for 59 of them and further 38 had already been previously published. In general, non-sustainable agriculture, livestock farming and urban development are amongst the most common threats for Mexican and European CWR (Chapter 5; Bilz *et al*., 2011; Kell *et al*., 2012). Almost one third (24%) of the priority CWR occurring in Mexico were assessed as threatened, and for those, immediate *in situ* and *ex situ* conservation actions have to be implemented. Particular actions should be considered to reduce the pressures of anthropic change of land use. For example, *Zea mays* subsp. *diploperennis* is conserved in the Biosphere Reserve Sierra de Manantlán, however, it was assessed as Endangered. The main drivers are the very restricted distribution of the taxon and the continuing decline in the populations. Previously it was mentioned the need to revise the management plans of PA to effectively conserve the diversity.

The intrinsic characteristic of CWR is that they are a source of genetic variation for crop breeding (Ford-Lloyds *et al*., 2011; Maxted *et al*., 2006). Hence, the ultimate purpose of the conservation strategy of CWR is to capture that genetic variation and make it available for using in genetic improvement of crops (Magos Brehm *et al*., 2017). There is an increasing number of CWR that have been used or have the potential to be used in crop breeding (Maxted *et al*., 2009; Magos Brehm *et al*., 2017). In Chapter 1 of this thesis, a summary of the observed and potential utilization of CWR for the genetic improvement of native crops is presented in Supplementary Table 1.1. In Chapter 6, the potential utilization for breeding of wild relatives of maize (*Zea mays* L.) and common bean (*Phaseolus vulgaris* L.), two of the most important crops of Mexico and worldwide, were evaluated. In Figures 1.6, 1.7 and 1.9 of Chapter 1, the importance of these crops is shown in terms of the economic value and food supply for the Mexican population. The challenge now is to increase productivity to meet the demands of a growing population in Mexico while, at the same time, facing the pressures of a changing climate, for example changes in temperature and precipitation (Hertel *et al*., 2010; Porter *et al*., 2014; Ray *et al*., 2015). The predictive characterization study (see Chapter 6 for details) resulted in the identification of 49 accessions of maize wild relatives and 61 accessions of common bean wild relatives as potential sources for drought tolerance and a subset of 13 accession of *Zea mays* subsp. *parviglumis* and two accessions of *Phaseolus acutifolius* were identified as being particularly potential sources for heat tolerance. The results from the predictive characterization are expected to reduce the number of field trials for genetic improvement and overcome the limited availability of characterization and evaluation data (Street *et al.*, 2008; Thormann *et al.* 2014) and facilitate the exploration of potential utilization of CWR.

In summary, the present study focussed on the development of a national CWR conservation strategy for Mexico following the main elements. During the conservation planning, first the plant diversity of Mexico was evaluated and priority CWR were identified. Second, diversity analyses were conducted, based on distribution and ecogeographic diversity. Third, the impacts of climate change on the distribution range of CWR were analyzed. Fourth, threat assessment of priority CWR were conducted to further prioritize the CWR taxa. All these elements aim to detect needs and make recommendations for complementary *in situ* and *ex situ* conservation. Finally, the implementation of predictive characterization will enhance the utilization of CWR for the genetic improvement of crops of national and global importance.

7.2. Mexican CWR conservation strategy: from strategy to implementation

The *in situ* and *ex situu* conservation planning undertaken for the development of the conservation strategy, set the grounds for the establishment of a national CWR *in situ* conservation network and *ex situ* conservation priorities, both aiming at the active long-term conservation of priority Mexican CWR. Towards an effective implementation of the strategy, several factors have to be considered for the implementation of *in situ* and *ex situ* conservation actions, following Iriondo *et al*. (2008; 2012) and Magos Brehm *et al*. (2017):

a) The top 10 preliminary reserve sites should be assessed to determine their suitability for long-term *in situ* conservation of target taxa, preferably those located in a current PA network (federal or state) in natural or semi-natural environments, with easy accessibility to facilitate active conservation, among other conditions, that have to be taken into consideration (land ownership and interest of local communities, current use, potential threats, adequate area available to maintain the target populations). Field explorations to confirm the presence of the taxa in the site and to verify that an adequate population size is present to ensure long-term viability and that the most common, widespread and localized alleles are represented, or that the ecogeographic diversity is represented (Chapter 3).

b) Whenever a reserve site does not meet the minimum quality standards and requirements for suitability, the set of priority sites can be adjusted to the next in line of the 67 priority reserve sites.

c) The validated preliminary sites for *in situ* conservation should constitute a formal network of genetic reserves that guarantee the means for active conservation, and ensures that their management is integrated within the national policies regarding the use and conservation of local biodiversity and agrobiodiversity by intervention of policy stakeholders, *e.g*. Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) and the Secretariat of Environment and Natural Resources (SEMARNAT), the National Commission for Natural Protected Areas (CONANP), National Commission for the Knowledge and Use of Biodiversity (CONABIO), National Forestry Commission (CONAFOR).

d) The most appropriate authority (*e.g.* CONANP) will supervise the formulation and/or amendment of the management plans to ensure CWR are integrated in the management plans for active *in situ* conservation, including periodic monitoring of populations or genetic diversity, control of invasive species, control of disturbances, habitat restoration, assisted propagation, etc. (Maxted *et al*., 2008).

e) Ensure *ex situ* collections as a regular basis for complementary conservation of the genetic diversity of the populations within the genetic reserves. Coordinated activities can be implemented by National Institute of Forestry, Agriculture and Livestock Research (INIFAP), through its many research units and seedbanks, and though the National Genetic Resources Centre (CNRG); the National Plant Germplasm Bank (BANGEV); the International Maize and Wheat Improvement Centre (CIMMYT); *National Service* for Inspection and Certification of Seed (SNICS).

f) *Ex situ* conservation should be focused on the priority taxa and sites for further collection. Collection missions should target representative populations, for example, underrepresented ecogeographic diversity (Chapter 3), populations that are more likely to be negatively affected by climate change (Chapter 4), and/or populations of threatened taxa (Chapter 5). Appropriate sampling strategies should be implemented to ensure the representative amounts of genetic diversity is captured.

g) The genebanks responsible for the conservation of the collected germplasm (seed or other germplasm material), should ensure that the appropriate protocols are met for long-term preservation. The CNRG, for example, is fully equipped for the storage at 4°C, -18°C and -196°C of different plant germplasm and performs routinely monitoring of viability.

Additionally, effective implementation of this strategy will require the input of numerous Mexican stakeholders of different areas, for example the National Institute of Ecology and Climate Change (INECC) and other research institutes, universities and local communities involved in the conservation and sustainable utilization of specific group of plants or working at regional or local scale.

7.3 Limitation of the research

One of the main limitations of this work is the lack of detailed taxonomic information for some taxa. The lack of agreement on accepted classification and nomenclature among different sources represent a limitation. For example, according to The Plant List (2013), *C. pepo* subsp. *texana* (A. Gray) Filov is a synonym of *C. pepo* var. *texana* (Scheele) D.S. Decker; however GRIN Taxonomy (USDA, ARS, GRIN, 2017) includes *C. pepo* subsp. *texana* (Scheele) Filov, nom. inval. as a synonym of *C. pepo* subsp. *ovifera* (L.) D.S. Decker var. *texana* (Scheele) Filov. Given the vast diversity of vascular plants present in the country, taxonomic uncertainties can arise, for example, in the total number of plant species and the specific number of endemic species. The last updates of the Villaseñor and Ortiz (2014) and Villaseñor (2016) estimated between 21,841 to 23,314 vascular plants occurring in Mexico. Moreover, Villaseñor (2016) estimated that there are 1.3 of synonyms per species. There is limited sub-generic taxonomic classification information for several taxa, which made difficult the application of the Taxon Group Concept below the TG4 and limited the prioritization for conservation of those taxa. This represent a limitation due to the relatively reduced number of plant species for which research on breeding capacity have been conducted to determine their Gene Pool level (about 45% of the CWR included in the inventory). Data on species' distribution ranges is being constantly generated or improved through new studies, explorations, collections and recording of occurrences, however, there is still a generalized restriction on the availability of this information. Species distribution modelling depends greatly on the number and quality of occurrence data to produce reliable projections on the geographic distribution of the species, so guaranteeing the accessibility to this information is crucial.

The analysis of the impacts of climate change was based on the species distribution models of the CWR taxa under future scenarios. However, other factors not assessed here, such as biotic and abiotic interactions that may be determinant when assessing the impacts of climate change. Some factors were mentioned in Chapter 4, for example, the uniformity of spatial distribution of a species through its range (Shoo *et al*., 2005), species' migration capacity (Guisan and Thuiller, 2005), local adaptations (Shaw and Etterson, 2012), range shifts interactions with fragmentation and land-use (Benning *et al*., 2002), population dynamics (Post and Forchhammer, 2004; Guisan and Thuiller, 2005), prevalence of diseases (Elad and Ilaria, 2014; Das *et al*., 2016), etc.

Additionally, it was highlighted in Chapter 6 that field trials of the candidate accessions that resulted of the predictive characterization should be conducted to confirm the presence of the adaptive traits studied here as well as to validate the suitability of the selected accessions for crop breeding.

Finally, even though in the present work the analysis of the ecogeographic diversity of priority CWR was conducted as a measure of genetic diversity, more information regarding this diversity using molecular markers is required. A survey regarding the available population information of priority CWR as well as collecting fresh data from the field, when required, will help to refine the results of the gap analyses and help establish more precise and updated *in situ* and *ex situ* conservation priorities.

7.4 Future research

Three major activities are considered for immediate research. First, to assess the candidate accessions selected for potential tolerance to drought and heat (Chapter 6) through field evaluation to confirm the presence of the adaptive traits, and thus validate the implementation of the selected accessions and the selection method for crop breeding. It is also important to extend this strategy (predictive characterization–field trial) to other crop gene pools to search for sources of variation of other traits of interest.

Second, to conduct additional threat assessments of Mexican CWR to further determine their priority status and recognize the current and potential threats and determine urgent conservation actions. Part of assessments is being conducted by the working group of the project "Safeguarding Mesoamerican Crop Wild Relatives" (www.psmesoamerica.org/en), and additional assessments will be performed as part of the present work.

Third, to undertake genetic diversity analysis on a regular basis as part of the implementation of the conservation strategy (*e.g.* preservation of representative diversity or monitoring of genetic erosion), but particularly to apply the results to further prioritize the CWR and to identify representative populations for *in situ* and *ex situ* conservation by analysing the genetic diversity across the ecogeographic range (Magos Brehm *et al*., 2017). The development and utilization of available molecular markers linked to adaptive traits will also help target for population diversity and genetic variation of interest for breeders (Parra-Quijano *et al*., 2011; Magos Brehm *et al*., 2017).

7.5 Conclusions

The analyses conducted and the information generated in this thesis helped to develop a national conservation strategy to ensure the active long-term conservation of priority CWR in Mexico, an important centre of origin, domestication and diversification of many national and globally important crops. Several CWR taxa have been also recognized by Vincent *et al.* (2013) as global priorities, so the implementation of this strategy is not only of national but of worldwide significance. This strategy helped recognize *in situ* and *ex situ* conservation needs and set the basis for the establishment of a CWR genetic reserve network. The identification of priority CWR taxa and the definition of specific conservation actions will ensure the preservation of genetic diversity of these valuable genetic resources and their availability for breeders, while minimizing the impacts of climate change and helping preserving the national agrobiodiversity and food security.

In conclusion:

a) The Mexican national CWR inventory was created containing 310 priority CWR related to 40 crops of national, regional and global importance. The methodology implemented for prioritization let a systematic conservation of the broad CWR diversity on a phased approach. Thus, conservation of the next priority CWR can be conducted at subsequent stages.

b) The distribution and ecogeographic diversity analyses allowed the identification of priority sites for complementary *in situ* and *ex situ* conservation of priority CWR. Priorities for further field surveying, *ex situ* collection, and for the establishment of genetic reserves were identified to ensure the representativeness of the diversity in the conservation efforts. The establishment of a CWR genetic reserve network including the top ten reserve sites was proposed.

c) The analysis of the impacts of climate change exposed those taxa that are more likely to reduce significantly their current distribution range and for which conservation actions have to be established urgently.

d) Specific *in situ* and *ex situ* conservation actions under current and future climate scenarios were recommended to improve and guarantee the representativeness of the CWR diversity and their active long-term conservation.

e) The threat assessment allow the identification of threatened priority CWR (Vulnerable, Endangered and Critically Endangered) and the main drivers of threat. These threatened taxa should receive immediate conservation attention.

f) Predictive characterization allowed the identification of potential germplasm as probable candidates for the genetic improvement of the target crops for drought and heat tolerance. However, field trials have to be conducted to evaluate the selected accessions and confirm their suitability for a breeding program.

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Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asparagaceae	Agave aktites Gentry	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave aktites Gentry	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave aktites Gentry	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave aktites Gentry	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave aktites Gentry	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave aktites Gentry	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave aktites Gentry	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave angustifolia Haw.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave angustifolia Haw.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave angustifolia Haw.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave angustifolia Haw.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave angustifolia Haw.	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave angustifolia Haw.	TG1B	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	TG1B	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG2	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asparagaceae	Agave congesta Gentry	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave congesta Gentry	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave congesta Gentry	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave congesta Gentry	TG2	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave congesta Gentry	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave congesta Gentry	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave congesta Gentry	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave datylio F.A.C. Weber	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave datylio F.A.C. Weber	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave datylio F.A.C. Weber	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave datylio F.A.C. Weber	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG3/TG2/TG3/ TG3/TG2/TG2	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave fourcroydes Lem.	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG2	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave hiemiflora Gentry	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave hurteri Trel.	TG2	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave hurteri Trel.	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asparagaceae	Agave karwinskii Zucc.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave karwinskii Zucc.	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave kewensis Jacobi	TG2	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave kewensis Jacobi	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave macroacantha Zucc.	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave macroculmis Tod.	TG2	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave macroculmis Tod.	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave mapisaga Trel.	TG2	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave mapisaga Trel.	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asparagaceae	Agave rhodacantha Trel.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave rhodacantha Trel.	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG2	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave seemanniana Jacobi	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG2	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave sisalana Perrine ex Engelm.	TG3	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave stringens Trel.	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave stringens Trel.	TG2	Agave	Tequila agave	Agave tequilana	Source of destile beverage	Industrial
Asparagaceae	Agave stringens Trel.	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave stringens Trel.	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave stringens Trel.	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave stringens Trel.	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial
Asparagaceae	Agave stringens Trel.	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Asparagaceae	Agave tequilana F.A.C. Weber	TG3	Agave	Mescal agave	Agave weberi	0	Industrial
Asparagaceae	Agave tequilana F.A.C. Weber	TG3	Agave	Pulque agave	Agave salmiana	Beverage base pulque	Industrial
Asparagaceae	Agave tequilana F.A.C. Weber	TG3	Agave	Mescal agave	Agave potatorum	0	Industrial
Asparagaceae	Agave tequilana F.A.C. Weber	TG2	Agave	Mexican Sisal	Agave fourcroydes	Fiber	Industrial
Asparagaceae	Agave tequilana F.A.C. Weber	TG2	Agave	Zapupe	Agave angustifolia deweyana	Fiber	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asparagaceae	Agave tequilana F.A.C. Weber	TG2	Agave	Mescal agave	Agave angustifolia	Beverage base bacanora, Medicine folklore	Industrial
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus blitoides S. Watson	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus blitoides S. Watson	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus blitoides S. Watson	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus blitoides S. Watson	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus blitoides S. Watson	TG3	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus caudatus L.	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus caudatus L.	TG3	Amaranth	Red amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus caudatus L.	TG3	Amaranth	Red amaranth	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus caudatus L.	TG4	Amaranth	Red amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus crassipes Schltdl.	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus crassipes Schltdl.	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus crassipes Schltdl.	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus crassipes Schltdl.	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus crassipes Schltdl.	TG3	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus cruentus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus cruentus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus dubius	0	Vegetable

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Amaranthaceae	Amaranthus cruentus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus cruentus L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	TG3	Amaranth	Love-lies-bleeding	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	TG3	Amaranth	Love-lies-bleeding	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	TG4	Amaranth	Love-lies-bleeding	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus greggii S. Watson	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus greggii S. Watson	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus greggii S. Watson	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus greggii S. Watson	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus greggii S. Watson	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus hybridus L.	GP2	Amaranth	Amaranth	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Amaranthaceae	Amaranthus hypochondriacus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus hypochondriacus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus hypochondriacus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus hypochondriacus L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus hypochondriacus L.	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus hypochondriacus L.	TG3	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus palmeri S. Watson	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus palmeri S. Watson	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus palmeri S. Watson	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus palmeri S. Watson	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus palmeri S. Watson	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Love-lies-bleeding	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus polygonoides L.	TG4	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus powellii S. Watson	GP3	Amaranth	Amaranth	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus scariosus Benth.	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus scariosus Benth.	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus scariosus Benth.	TG3	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus scariosus Benth.	TG3	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus scariosus Benth.	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Amaranthaceae	Amaranthus spinosus L.	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus spinosus L.	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus spinosus L.	TG3	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus spinosus L.	TG3	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus spinosus L.	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus tamaulipensis Henrickson	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus tamaulipensis Henrickson	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus tamaulipensis Henrickson	TG3	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus tamaulipensis Henrickson	TG3	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus tamaulipensis Henrickson	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	TG3	Amaranth	Love-lies-bleeding	Amaranthus caudatus	0	Cereal
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	TG3	Amaranth	Red amaranth	Amaranthus cruentus	0	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	TG3	Amaranth	Spleen amaranth	Amaranthus dubius	0	Vegetable
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	TG3	Amaranth	Prince-of-Wales feather	Amaranthus hypochondriacus	Ornamental, Pseudocereal, Vegetable, Fodder, Medicine	Pseudo-cereal, Vegetable
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	TG4	Amaranth	Tropical amaranth	Amaranthus polygonoides	0	Vegetable
Annonaceae	Annona cherimola Mill.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona cherimola Mill.	GP1	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona cherimola Mill.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona cherimola Mill.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona glabra L.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona glabra L.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona glabra L.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona glabra L.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona globiflora Schltdl.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Annonaceae	Annona globiflora Schltdl.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona globiflora Schltdl.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona globiflora Schltdl.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona liebmanniana Baill.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona liebmanniana Baill.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona liebmanniana Baill.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona liebmanniana Baill.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona longiflora S. Watson	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona longiflora S. Watson	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona longiflora S. Watson	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona longiflora S. Watson	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona longipes Saff.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona longipes Saff.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona longipes Saff.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona longipes Saff.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona macroprophyllata Donn. Sm.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona macroprophyllata Donn. Sm.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona macroprophyllata Donn. Sm.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona macroprophyllata Donn. Sm.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona muricata L.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona muricata L.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona muricata L.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona muricata L.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona palmeri Saff.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona palmeri Saff.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona palmeri Saff.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona palmeri Saff.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	TG3	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona reticulata L.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Annonaceae	Annona reticulata L.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona reticulata L.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona reticulata L.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Annonaceae	Annona squamosa L.	TG4	Annona	Custard apple	Annona reticulata	0	Fruit
Annonaceae	Annona squamosa L.	TG4	Annona	Cherimoya	Annona cherimola	0	Fruit
Annonaceae	Annona squamosa L.	TG4	Annona	Soursop	Soursop	0	Fruit
Annonaceae	Annona squamosa L.	TG4	Annona	Sugar apple	Sugar apple	0	Fruit
Bixaceae	Bixa orellana L.	TG4	Annatto	Annatto	Bixa orellana	0	Medicine and Spice
Malpighiaceae	Byrsonima crassifolia (L.) Kunth	TG4	Nance	Nance	Byrsonyma crassifolia	0	Fruit
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	GP1	Chili pepper	Chili pepper	Capsicum annuum var. annuum	Spice, Ornamental, Vegetable, Medicine	Vegetable
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	GP1	Chili pepper	Habanero pepper	Capsicum chinense	Spice, Medicine	Medicine and Spice
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	GP1	Chili pepper	Tabasco pepper	Capsicum frutescens	Spice, Medicine	Medicine and Spice
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	GP3	Chili pepper	Apple pepper	Capsicum pubescens	Spice	Medicine and Spice
Solanaceae	Capsicum frutescens L.	GP1	Chili pepper	Tabasco pepper	Capsicum frutescens	Spice, Medicine	Vegetable
Solanaceae	Capsicum frutescens L.	GP2	Chili pepper	Chili pepper	Capsicum annuum var. annuum	Spice, Ornamental, Vegetable, Medicine	Medicine and Spice
Solanaceae	Capsicum frutescens L.	GP2	Chili pepper	Habanero pepper	Capsicum chinense	Spice, Medicine	Medicine and Spice
Solanaceae	Capsicum frutescens L.	GP3	Chili pepper	Apple pepper	Capsicum pubescens	Spice	Medicine and Spice
Caricaceae	Carica papaya L.	GP1	Papaya	Papaya	Carica papaya	Fruit, Medicine, Industry	Fruit
Juglandaceae	Carya illinoinensis (Wangenh.) K. Koch	GP1	Pecan	Pecan	Carya illinoinensis	Nut, Charcoal, Wood	Nut
Juglandaceae	Carya myristiciformis (F. Michx.) Elliott	GP1	Pecan	Pecan	Carya illinoinensis	Nut, Charcoal, Wood	Nut
Juglandaceae	Carya ovata (Mill.) K. Koch	GP1	Pecan	Pecan	Carya illinoinensis	Nut, Charcoal, Wood	Nut
Juglandaceae	Carya palmeri W. E. Manning	GP1	Pecan	Pecan	Carya illinoinensis	Nut, Charcoal, Wood	Nut
Rosaceae	Crataegus mexicana D.C.	TG1B	Mexican hawthorn	Mexican hawthorn	Crataegus mexicana	0	Fruit
Rosaceae	Crataegus tracyi Ashe ex Eggl. var. coahuilensis J.B. Phipps	TG4	Mexican hawthorn	Mexican hawthorn	Crataegus mexicana	0	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Rosaceae	Crataegus uniflora Münchh.	TG4	Mexican hawthorn	Mexican hawthorn	Crataegus mexicana	0	Fruit
Cucurbitaceae	Cucurbita argyrosperma C. Huber	GP2	Pumpkin, squash	Moschata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	GP1	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Fruit, Medicine and Spice
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	Progenitor	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	GP2	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	GP2	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita cordata S. Watson	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita cordata S. Watson	GP3	Pumpkin, squash	Moshata pumpking	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita cordata S. Watson	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita cordata S. Watson	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita cordata S. Watson	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita digitata A. Gray	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita digitata A. Gray	GP3	Pumpkin, squash	Moshata pumpking	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cucurbitaceae	Cucurbita digitata A. Gray	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita digitata A. Gray	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita digitata A. Gray	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita foetidissima Kunth	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita foetidissima Kunth	GP3	Pumpkin, squash	Moshata pumpking	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita foetidissima Kunth	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita foetidissima Kunth	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita foetidissima Kunth	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	GP2	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	GP2	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	GP2	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	GP2	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. Argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	GP2	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	GP2	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita palmata S. Watson	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita palmata S. Watson	GP3	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita palmata S. Watson	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita palmata S. Watson	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita palmata S. Watson	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	GP2	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Fruit, Vegetable
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	GP3	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	GP3	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. Argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	GP1	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Fruit, Vegetable
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	Progenitor	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	GP2	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	GP2	Pumpkin, squash	Cushaw	Cucurbita argyrosperma subsp. argyrosperma	Fruit, Seeds	Medicine and Spice
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	GP3	Pumpkin, squash	Fig-leaf gourd	Cucurbita ficifolia	Fruit, Seeds, Vegetable, Forrage, Medicine	Vegetable
Cucurbitaceae	Cucurbita radicans Naudin	GP2	Pumpkin, squash	Moshata pumpkin	Cucurbita moschata	Fruit, Seeds, Medicine	Fruit
Cucurbitaceae	Cucurbita radicans Naudin	GP3	Pumpkin, squash	Maxima pumpkin	Cucurbita maxima	Fruit, Medicine, Religious	Fruit
Cucurbitaceae	Cucurbita radicans Naudin	GP3	Pumpkin, squash	Pepo pumpkin	Cucurbita pepo	Medicine	Vegetable
Ebenaceae	Diospyros conzattii Standl.	TG4	Black sapote	Persimonio	Diospyros virginiana	0	Fruit
Ebenaceae	Diospyros conzattii Standl.	TG4	Black sapote	Zapote negro	Diospyros digyna	0	Fruit
Ebenaceae	Diospyros johnstoniana Standl. & Steyerm.	TG4	Black sapote	Persimonio	Diospyros virginiana	0	Fruit
Ebenaceae	Diospyros johnstoniana Standl. & Steyerm.	TG4	Black sapote	Zapote negro	Diospyros digyna	0	Fruit
Ebenaceae	Diospyros rosei Standl.	TG4	Black sapote	Persimonio	Diospyros virginiana	0	Fruit
Ebenaceae	Diospyros rosei Standl.	TG4	Black sapote	Zapote negro	Diospyros digyna	0	Fruit
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	GP3	Cotton	Cotton	Gossypium hirsutum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	GP3	Cotton	Sea island cotton	Gossypium barbadense	Fiber, Medicine	Industrial
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Malvaceae	Gossypium barbadense L.	GP1	Cotton	Cotton	Gossypium hirsutum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium barbadense L.	GP1	Cotton	Sea island cotton	Gossypium barbadense	Fiber, Medicine	Industrial
Malvaceae	Gossypium barbadense L.	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium barbadense L.	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	GP3	Cotton	Cotton	Gossypium hirsutum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	GP3	Cotton	Sea island cotton	Gossypium barbadense	Fiber, Medicine	Industrial
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Malvaceae	Gossypium hirsutum L.	GP1	Cotton	Cotton	Gossypium hirsutum	Oil, Fodder, Fiber, Medicine	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Malvaceae	Gossypium hirsutum L.	GP1	Cotton	Sea island cotton	Gossypium barbadense	Fiber, Medicine	Industrial
Malvaceae	Gossypium hirsutum L.	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium hirsutum L.	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	GP3	Cotton	Cotton	Gossypium hirsutum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	GP3	Cotton	Sea island cotton	Gossypium barbadense	Fiber, Medicine	Industrial
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Malvaceae	Gossypium thurberi Tod.	GP3	Cotton	Short-staple cotton	Gossypium herbaceum	Oil, Fodder, Fiber, Medicine	Industrial
Malvaceae	Gossypium thurberi Tod.	GP3	Cotton	Tree cotton	Gossypium arboreum	Fiber, Medicine	Industrial
Asteraceae (Compositae)	Helianthus annuus L.	GP1	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus californicus DC.	GP3	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus ciliaris DC.	GP3	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus gracilentus A. Gray	GP3	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus hirsutus Raf.	GP3	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus laciniatus A. Gray	GP3	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee	GP2	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee subsp. niveus	GP2	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee subsp. tephrodes (A. Gray) Heiser	GP2	Sunflower	Sunflower	Helianthus annuus	Honey, Ornamental, Oil, Pseudocereal, Seeds, Starch, Fodder, Alcohol, Medicine, Fiber	Industrial
Cactaceae	Hylocereus ocamponis (Salm-Dyck) Britton & Rose	TG4	Pitahaya	Pitahaya	Hylocereus undatus	0	Fruit
Convolvulaceae	Ipomoea batatas (L.) Lam.	GP2	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea leucantha Jacq.	GP3	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea tabascana J.A. McDonald & D.F. Austin	GP2	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea tabascana J.A. McDonald & D.F. Austin	Progenitor	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea tiliacea (Willd.) Choisy	GP3	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea trifida (Kunth) G. Don	GP2	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea trifida (Kunth) G. Don	Progenitor	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Convolvulaceae	Ipomoea triloba L.	GP3	Sweet-potato	Sweet-potato	Ipomoea batatas var. batatas	Starch, Vegetable, Alcohol, Medicine	Tuber
Caricaceae	Jacaratia dolichaula (Donn. Sm.) Woodson	GP3	Papaya	Papaya	Carica papaya	Fruit, Medicine, Industry	Fruit
Caricaceae	Jacaratia mexicana A. DC.	GP3	Papaya	Papaya	Carica papaya	Fruit, Medicine, Industry	Fruit
Caricaceae	Jarilla caudata (Brandegee) Standl.	GP2	Papaya	Papaya	Carica papaya	Fruit, Medicine, Industry	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Caricaceae	Jarilla heterophylla (Cerv. ex La Llave) Rusby	GP2	Papaya	Papaya	Carica papaya	Fruit, Medicine, Industry	Fruit
Euphorbiaceae	Jatropha andrieuxii Müll. Arg.	TG2	Physic nut	Physic nut	Jatropha curcas	0	Industrial
Euphorbiaceae	Jatropha bartlettii Wilbur	TG2	Physic nut	Physic nut	Jatropha curcas	0	Industrial
Euphorbiaceae	Jatropha mcvaughii Dehgan & G.L. Webster	TG2	Physic nut	Physic nut	Jatropha curcas	0	Industrial
Euphorbiaceae	Jatropha pseudocurcas Müll. Arg.	TG2	Physic nut	Physic nut	Jatropha curcas	0	Industrial
Euphorbiaceae	Jatropha rufescens Brandegee	TG2	Physic nut	Physic nut	Jatropha curcas	0	Industrial
Fabaceae (Leguminosae)	Leucaena confertiflora Zárate	TG4	Lead tree	Lead tree	Leucaena leucocephala	0	Legume
Fabaceae (Leguminosae)	Leucaena diversifolia (Schltdl.) Benth.	TG4	Lead tree	Lead tree	Leucaena leucocephala	0	Legume
Fabaceae (Leguminosae)	Leucaena esculenta (Moc. & Sessé ex DC.) Benth.	TG4	Lead tree	Lead tree	Leucaena leucocephala	0	Legume
Fabaceae (Leguminosae)	Leucaena lanceolata S. Watson	TG4	Lead tree	Lead tree	Leucaena leucocephala	0	Legume
Fabaceae (Leguminosae)	Leucaena leucocephala (Lam.) de Wit	TG1B	Lead tree	Lead tree	Leucaena leucocephala	Agroforestry, Fodder, Forrage, Fuelwood, Beads, Fiber, Potential as tannin	Legume
Euphorbiaceae	Manihot aesculifolia (Kunth) Pohl	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot angustiloba (Torr.) Mull. Arg.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot auriculata McVaugh	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot caudata Greenm.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot chlorosticta Standl. & Goldman	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot crassisepala Pax & K. Hoffm.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot davisiae Croizat	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot foetida (Kunth) Pohl	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Euphorbiaceae	Manihot michaelis McVaugh	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot oaxacana D. J. Rogers & Appan	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot obovata J. Jimenez Ram.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot pauciflora Brandegee	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot pringlei S. Watson	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot rhomboidea Mull. Arg.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot rhomboidea Müll. Arg. subsp. microcarpa (Müll. Arg.) D. J. Rogers & Appan	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot rubricaulis I. M. Johnst.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot rubricaulis I. M. Johnst. subsp. isoloba (Standl.) D. J. Rogers & Appan	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot rubricaulis I. M. Johnst. subsp. rubricaulis	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot subspicata D. J. Rogers & Appan	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot tomatophylla Standl.	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Euphorbiaceae	Manihot walkerae Croizat	GP3	Cassava	Cassava	Manihot esculenta subsp. esculenta	Spice, Starch, Vegetable, Fodder, Alcohol, Medicine	Tuber
Sapotaceae	Manilkara chicle (Pittier) Gilly	TG4	Naseberry, gum tree	Zapote chiclero	Manilkara chicle	0	Fruit
Sapotaceae	Manilkara chicle (Pittier) Gilly	TG4	Naseberry, gum tree	Zapote chico, chicozapote	Manilkara zapota	0	Fruit
Sapotaceae	Manilkara zapota (L.) P. Royen	TG4	Naseberry, gum tree	Zapote chiclero	Manilkara chicle	0	Fruit
Sapotaceae	Manilkara zapota (L.) P. Royen	TG4	Naseberry, gum tree	Zapote chico, chicozapote	Manilkara zapota	0	Fruit
Cactaceae	Opuntia atropes Rose	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cactaceae	Opuntia atropes Rose	TG2	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia atropes Rose	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia atropes Rose	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia crassa Haw.	TG2	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia crassa Haw.	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia crassa Haw.	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia crassa Haw.	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia deamii Rose	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia deamii Rose	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia deamii Rose	TG2	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia deamii Rose	TG2	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia eichlamii Rose	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia eichlamii Rose	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia eichlamii Rose	TG2	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia eichlamii Rose	TG2	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia ficus-indica (L.) Mill.	TG1B	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia ficus-indica (L.) Mill.	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia ficus-indica (L.) Mill.	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia ficus-indica (L.) Mill.	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	TG2	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia lasiacantha Pfeiff.	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia lasiacantha Pfeiff.	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia lasiacantha Pfeiff.	TG2	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia lasiacantha Pfeiff.	TG2	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia spinulifera Salm-Dyck	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia spinulifera Salm-Dyck	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia spinulifera Salm-Dyck	TG2	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia streptacantha Lem.	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cactaceae	Opuntia streptacantha Lem.	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia streptacantha Lem.	TG2	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia streptacantha Lem.	TG2	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia undulata Griffiths	TG2	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia undulata Griffiths	TG3	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia undulata Griffiths	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia undulata Griffiths	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia velutina F.A.C. Weber	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia velutina F.A.C. Weber	TG2	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia velutina F.A.C. Weber	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia velutina F.A.C. Weber	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Cactaceae	Opuntia wilcoxii Britton & Rose	TG3	Opuntia	Prickly Pear, nopal, joconostle	Opuntia ficus-indica	0	Forrage, Vegetable, Fruit
Cactaceae	Opuntia wilcoxii Britton & Rose	TG2	Opuntia	Joconostle	Opuntia durangensis	0	Fruit
Cactaceae	Opuntia wilcoxii Britton & Rose	TG3	Opuntia	Joconostle	Opuntia hyptiacantha	0	Fruit
Cactaceae	Opuntia wilcoxii Britton & Rose	TG3	Opuntia	Joconostle	Opuntia spinulifera	0	Fruit
Fabaceae (Leguminosae)	Pachyrhizus erosus (L.) Urb.	GP1	Yam-bean	Yam-bean	Pachyrhizus erosus	Vegetable, Forage	Vegetable
Fabaceae (Leguminosae)	Pachyrhizus ferrugineus (Piper) M. Sorensen	GP2	Yam-bean	Yam-bean	Pachyrhizus erosus	Vegetable, Forage	Vegetable
Lauraceae	Persea americana Mill.	GP1	Avocado	Avocado	Persea americana	Fruit, Medicine	Fruit
Lauraceae	Persea schiedeana Nees	GP3	Avocado	Avocado	Persea americana	Fruit, Medicine	Fruit
Lauraceae	Persea schiedeana Nees	Graftstock	Avocado	Avocado	Persea americana	Fruit, Medicine	Fruit
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray	GP3	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. acutifolius	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. acutifolius	Progenitor	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. tenuifolius A. Gray	GP1	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. tenuifolius A. Gray	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus albescens McVaugh ex R. Ramirez & A. Delgado	GP2	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Fabaceae (Leguminosae)	Phaseolus albescens McVaugh ex R. Ramirez & A. Delgado	GP2	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus angustissimus A. Gray	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus carteri Freytag & Debouck	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus carteri Freytag & Debouck	GP3	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus coccineus L.	GP2	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus coccineus L.	GP2	Bean	Year bean	Phaseolus dumosus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus coccineus L.	GP3	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus coccineus L. subsp. coccineus	GP1	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	GP2	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	GP2	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	GP1	Bean	Year bean	Phaseolus dumosus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus filiformis Benth.	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus filiformis Benth.	GP3	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus maculatus Scheele subsp. ritensis (M. E. Jones) Freytag	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus maculatus Scheele subsp. ritensis (M. E. Jones) Freytag	GP3	Bean	Lima bean	Phaseolus lunatus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	GP2	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	GP3	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	GP3	Bean	Year bean	Phaseolus dumosus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	GP2	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	GP2	Bean	Year bean	Phaseolus dumosus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	GP3	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	GP1	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	GP2	Bean	Scarlet runner bean	Phaseolus coccineus	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	GP3	Bean	Tepary bean	Phaseolus acutifolius	Pulse	Legume
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	Progenitor	Bean	Common bean	Phaseolus vulgaris var. vulgaris	Pulse, Vegetable, Forrage, Medicine	Legume
Solanaceae	Physalis acutifolia (Miers) Sandwith	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis ampla Waterf.	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis angulata L.	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis crassifolia Benth.	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis lagascae Roem. & Schult.	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis lagascae Roem. & Schult.	GP3	Husk tomato	Ground-cherry	Physalis pubescens	Fruit	Vegetable
Solanaceae	Physalis microcarpa Urb. & Ekman	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis philadelphica Lam.	TG1B	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Solanaceae	Physalis sulphurea (Fernald) Waterf.	TG2	Husk tomato	Husk tomato	Physalis philadelphica	Fuit, Medicine folklore	Vegetable
Pinaceae	Pinus ayacahuite C. Ehrenb. ex Schltdl.	TG3	Pinyon	Pinyon	Pinus pinceana	Nut	Nut
Pinaceae	Pinus cembroides Zucc.	TG2	Pinyon	Pinyon	Pinus pinceana	0	Nut
Pinaceae	Pinus maximartinezii Rzed.	TG2	Pinyon	Pinyon	Pinus pinceana	0	Nut
Pinaceae	Pinus monophylla Torr. & Frém.	TG2	Pinyon	Pinyon	Pinus pinceana	0	Nut
Pinaceae	Pinus quadrifolia Parl. ex Sudw.	TG2	Pinyon	Pinyon	Pinus pinceana	0	Nut
Fabaceae (Leguminosae)	Pithecellobium dulce (Roxb.) Benth.	TG1B	Blackbead	Blackbead	Pithecellobium dulce	Agroforestry, Ornamental, Sade, Shelter, Soil improver, Fuit, Fuelwood, Beads, Wood, Medicine folklore	Legume

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Asteraceae (Compositae)	Porophyllum gracile Benth.	TG4	Poreleaf, pipicha	Poreleaf	Porophyllum ruderale subsp. macrocephalum	0	Vegetable
Asteraceae (Compositae)	Porophyllum gracile Benth.	TG4	Poreleaf, pipicha	Pipicha	Porophyllum linaria	0	Vegetable
Asteraceae (Compositae)	Porophyllum linaria (Cav.) DC.	TG4	Poreleaf, pipicha	Poreleaf	Porophyllum ruderale subsp. macrocephalum	0	Vegetable
Asteraceae (Compositae)	Porophyllum linaria (Cav.) DC.	TG4	Poreleaf, pipicha	Pipicha	Porophyllum linaria	0	Vegetable
Asteraceae (Compositae)	Porophyllum ruderale (Jacq.) Cass.	TG4	Poreleaf, pipicha	Poreleaf	Porophyllum ruderale subsp. macrocephalum	0	Vegetable
Asteraceae (Compositae)	Porophyllum ruderale (Jacq.) Cass.	TG4	Poreleaf, pipicha	Pipicha	Porophyllum linaria	0	Vegetable
Asteraceae (Compositae)	Porophyllum scoparium A. Gray	TG4	Poreleaf, pipicha	Poreleaf	Porophyllum ruderale subsp. macrocephalum	0	Vegetable
Asteraceae (Compositae)	Porophyllum scoparium A. Gray	TG4	Poreleaf, pipicha	Pipicha	Porophyllum linaria	0	Vegetable
Asteraceae (Compositae)	Porophyllum warnockii R.R. Johnson	TG4	Poreleaf, pipicha	Poreleaf	Porophyllum ruderale subsp. macrocephalum	0	Vegetable
Asteraceae (Compositae)	Porophyllum warnockii R.R. Johnson	TG4	Poreleaf, pipicha	Pipicha	Porophyllum linaria	0	Vegetable
Portulacaceae	Portulaca halimoides L.	TG4	Purslane	Purslane	Portulaca oleracea	0	Vegetable
Portulacaceae	Portulaca umbraticola Kunth	TG4	Purslane	Purslane	Portulaca oleracea	0	Vegetable
Sapotaceae	Pouteria belizensis (Standl.) Cronquist	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria belizensis (Standl.) Cronquist	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria campechiana (Kunth) Baehni	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria campechiana (Kunth) Baehni	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria durlandii (Standl.) Baehni	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria durlandii (Standl.) Baehni	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria glomerata (Miq.) Radlk.	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria glomerata (Miq.) Radlk.	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria reticulata (Engl.) Eyma	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Sapotaceae	Pouteria reticulata (Engl.) Eyma	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria rhynchocarpa T.D. Penn.	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria rhynchocarpa T.D. Penn.	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria sapota (Jacq.) H.E. Moore & Stearn	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria sapota (Jacq.) H.E. Moore & Stearn	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Sapotaceae	Pouteria torta (Mart.) Radlk.	TG4	Marmalade-plum, yellow sapote	Marmalade-plum	Pouteria sapota	0	Fruit
Sapotaceae	Pouteria torta (Mart.) Radlk.	TG4	Marmalade-plum, yellow sapote	Yellow sapote	Pouteria campechiana	0	Fruit
Myrtaceae	Psidium friedrichsthalianum (O. Berg) Nied.	TG4	Guava	Sartre Guava	Psidium sartorianum	0	Fruit
Myrtaceae	Psidium friedrichsthalianum (O. Berg) Nied.	GP2	Guava	Guava	Psidium guajava	0	Fruit
Myrtaceae	Psidium guajava L.	TG4	Guava	Sartre Guava	Psidium sartorianum	0	Fruit
Myrtaceae	Psidium guajava L.	GP1	Guava	Guava	Psidium guajava	0	Fruit
Myrtaceae	Psidium guineense Sw.	TG4	Guava	Sartre Guava	Psidium sartorianum	0	Fruit
Myrtaceae	Psidium guineense Sw.	GP1	Guava	Guava	Psidium guajava	0	Fruit
Myrtaceae	Psidium oligospermum DC.	TG4	Guava	Sartre Guava	Psidium sartorianum	0	Fruit
Myrtaceae	Psidium oligospermum DC.	TG4	Guava	Guava	Psidium guajava	0	Fruit
Myrtaceae	Psidium salutare (Kunth) O. Berg	TG4	Guava	Sartre Guava	Psidium sartorianum	0	Fruit
Myrtaceae	Psidium salutare (Kunth) O. Berg	TG4	Guava	Guava	Psidium guajava	0	Fruit
Lamiaceae (Labiatae)	Salvia axillaris Moc. & Sessé	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia axillaris Moc. & Sessé	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia candicans M. Martens & Galeotti	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia candicans M. Martens & Galeotti	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia carnea Kunth	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia carnea Kunth	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Lamiaceae (Labiatae)	Salvia cinnabarina M. Martens & Galeotti	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia cinnabarina M. Martens & Galeotti	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia coccinea Buc'hoz ex Etl.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia coccinea Buc'hoz ex Etl.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia columbariae Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia columbariae Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia elegans Vahl	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia elegans Vahl	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia fluviatilis Fernald	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia fluviatilis Fernald	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia helianthemifolia Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia helianthemifolia Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia hispanica L.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia laevis Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia laevis Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia lasiantha Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia lasiantha Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia lasiocephala Hook. & Arn.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia lasiocephala Hook. & Arn.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia leucantha Cav.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Lamiaceae (Labiatae)	Salvia leucantha Cav.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia longispicata M. Martens & Galeotti	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia longispicata M. Martens & Galeotti	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia longistyla Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia longistyla Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia mexicana L.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia mexicana L.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia microphylla Kunth	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia microphylla Kunth	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia misella Kunth	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia misella Kunth	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia mocinoi Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia mocinoi Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia oaxacana Fernald	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia oaxacana Fernald	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia occidentalis Sw.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia occidentalis Sw.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia patens Cav.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia patens Cav.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia polystachia Cav.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Lamiaceae (Labiatae)	Salvia polystachia Cav.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia prunelloides Kunth	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia prunelloides Kunth	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia purpurea Cav.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia purpurea Cav.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia recurva Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia recurva Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia regla Cav.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia regla Cav.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia sanctae-luciae Seem.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia sanctae-luciae Seem.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia setulosa Fernald	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia setulosa Fernald	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia splendens Sellow ex Wied-Neuw.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia splendens Sellow ex Wied-Neuw.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia stricta Sessé & Moc.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia stricta Sessé & Moc.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia thyrsiflora Benth.	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia thyrsiflora Benth.	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Lamiaceae (Labiatae)	Salvia tiliifolia Vahl	TG3	Chia, sage	Chia	Salvia hispanica	0	Medicine and Spice

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Lamiaceae (Labiatae)	Salvia tiliifolia Vahl	TG4	Chia, sage	Sage	Salvia officinalis	0	Medicine and Spice
Cucurbitaceae	Sechium chinantlense Lira & F. Chiang	GP3	Chayote	Chayote	Sechium edule subsp. edule	Fruit, Vegetable	Vegetable
Cucurbitaceae	Sechium compositum (Donn. Sm.) C. Jeffrey	GP3	Chayote	Chayote	Sechium edule subsp. edule	Fruit, Vegetable	Vegetable
Cucurbitaceae	Sechium edule (Jacq.) Sw. subsp. sylvestre Lira & Castrejon	GP1	Chayote	Chayote	Sechium edule subsp. edule	Fruit, Vegetable	Vegetable
Cucurbitaceae	Sechium hintonii (Paul G. Wilson) C. Jeffrey	GP3	Chayote	Chayote	Sechium edule subsp. edule	Fruit, Vegetable	Vegetable
Simmondsiaceae	Simmondsia chinensis (Link) C. K. Schneid.	GP1	Goatnut	Jojoba	Simmondsia chinensis	0	Industrial
Solanaceae	Solanum bulbocastanum Dunal	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum cardiophyllum Lindl.	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum clarum Correll	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum demissum Lindl.	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum ehrenbergii (Bitter) Rydb.	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum guerreroense Correll	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum hintonii Correll	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum hjertingii Hawkes	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum hougasii Correll	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum iopetalum (Bitter) Hawkes	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum morelliforme Bitter & Munch	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum oxycarpum Schiede	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum pinnatisectum Dunal	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Solanaceae	Solanum polyadenium Greenm.	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum schenckii Bitter	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum stenophyllidium Bitter	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum stoloniferum Schltdl.	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum tarnii Hawkes & Hjert.	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum trifidum Correll	GP3	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Solanaceae	Solanum verrucosum Schltdl.	GP2	Potato	Potato	Solanum tuberosum	Starch, Vegetable, Medicine	Tuber
Anacardiaceae	Spondias mombin L.	TG4	Purple mombin	Purple mombin	Spondias purpurea	0	Fruit
Anacardiaceae	Spondias purpurea L.	TG4	Yellow mombin	Yellow mombin	Spondias mombin	0	Fruit
Cactaceae	Stenocereus alamosensis (J.M. Coult.) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus alamosensis (J.M. Coult.) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus beneckei (Ehrenb.) A. Berger & Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus beneckei (Ehrenb.) A. Berger & Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus chrysocarpus Sánchez-Mej.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus chrysocarpus Sánchez-Mej.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus eichlamii (Britton & Rose) Buxb. ex Bravo	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus eichlamii (Britton & Rose) Buxb. ex Bravo	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus eruca (Brandegee) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus eruca (Brandegee) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus fricii Sánchez-Mej.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus fricii Sánchez-Mej.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus griseus (Haw.) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cactaceae	Stenocereus griseus (Haw.) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus gummosus (Engelm.) A. Gibson & K.E. Horak	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus gummosus (Engelm.) A. Gibson & K.E. Horak	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus kerberi (K. Schum.) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus kerberi (K. Schum.) A.C. Gibson & K.E. Horak	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus martinezii (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus martinezii (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus montanus (Britton & Rose) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus montanus (Britton & Rose) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus pruinosus (Otto ex Pfeiff.) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus pruinosus (Otto ex Pfeiff.) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus queretaroensis (F.A.C. Weber) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus queretaroensis (F.A.C. Weber) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus quevedonis (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus quevedonis (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus standleyi (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus standleyi (J.G. Ortega) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus stellatus (Pfeiff.) Riccob.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus stellatus (Pfeiff.) Riccob.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Cactaceae	Stenocereus thurberi (Engelm.) Buxb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus thurberi (Engelm.) Buxb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus thurberi subsp. littoralis (K. Brandegee) N. P. Taylor	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus thurberi subsp. littoralis (K. Brandegee) N. P. Taylor	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus thurberi (Engelm.) Buxb. subsp. thurberi	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus thurberi (Engelm.) Buxb. subsp. thurberi	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Cactaceae	Stenocereus treleasei (Britton & Rose) Backeb.	TG4	Pitaya, cina	Cina	Stenocereus alamosensis	0	Ornamental
Cactaceae	Stenocereus treleasei (Britton & Rose) Backeb.	TG4	Pitaya, cina	Pitaya	Stenocereus queretaroensis	0	Fruit
Asteraceae (Compositae)	Tagetes erecta L.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes filifolia Lag.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes foetidissima DC.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes hartwegii Greenm.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes lucida Cav.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes micrantha Cav.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes pringlei S. Watson	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes stenophylla B.L. Rob.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial
Asteraceae (Compositae)	Tagetes subulata Cerv.	TG4	Marigold	Marigold	Tagetes erecta	0	Ornamental, Industrial

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Malvaceae	Theobroma cacao L.	GP1	Cacao	Cacao	Theobroma cacao	Spice, Beberage base, Flavouring, Fruit, Oi, Fat Medicine, Source of theobromine, Stimulant, Religious	Industrial
Poaceae (Gramineae)	Tripsacum andersonii J. R. Gray	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum bravum J. R. Gray	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. dactyloides	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. hispidum (Hitchc.) de Wet & J. R. Harlan	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. mexicanum de Wet & J. R. Harlan	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum intermedium de Wet & J. R. Harlan	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum jalapense de Wet & Brink	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum lanceolatum Rupr. ex E. Fourn.	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum latifolium Hitchc.	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum laxum Nash	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum maizar Hern.-Xol. & Randolph	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Gene Pool/ Taxon Group†	Crop Gene Pool	Crop	Crop taxa	Crop use	Crop general use
Poaceae (Gramineae)	Tripsacum manisuroides de Wet & J. R. Harlan	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum pilosum Scribn. & Merr.	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum pilosum Scribn. & Merr. var. guatemalense de Wet & Brink	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Tripsacum zopilotense Hern.-Xol. & Randolph	GP3	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Orchidaceae	Vanilla planifolia Andrews	GP1	Vanilla	Vanilla	Vanilla planifolia Andrews	Food additive, Oil, Medicine	Industrial
Orchidaceae	Vanilla pompona Schiede	GP2	Vanilla	Vanilla	Vanilla planifolia Andrews	Food additive, Oil, Medicine	Industrial
Poaceae (Gramineae)	Zea diploperennis Iltis, Doebley & R. Guzman	GP2	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Zea luxurians (Durieu & Asch.) R. M. Bird	GP2	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Zea mays L. subsp. mexicana (Schrad.) H. H. Iltis	GP1	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Zea mays L. subsp. parviglumis H. H. Iltis & Doebley	GP1	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Zea mays L. subsp. parviglumis H. H. Iltis & Doebley	Progenitor	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage
Poaceae (Gramineae)	Zea perennis (Hitchc.) Reeves & Mangelsd.	GP2	Maize	Maize	Zea mays subsp. mays	Sweetener, Ornamental, Oil, Starch, Vegetable, Fodder, Alcohol, Medicine, Religious	Cereal, Forrage

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave aktites Gentry	2	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw.	1	NA	NA	NA	0	0	1	0	79
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	1	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	1	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	1	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	1	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	1	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave angustifolia Haw. var. deweyana (Trel.) Gentry	2	NA	NA	NA	0	0	2	Mexico	76
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	1	NA	NA	NA	0	0	5	0	79
Asparagaceae	Agave atrovirens Karw. ex Salm-Dyck	2	NA	NA	NA	0	0	5	0	79

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	1	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave congesta Gentry	2	NA	NA	NA	0	//Pr	1	Mexico	73
Asparagaceae	Agave datylio F.A.C. Weber	1	NA	NA	NA	0	0	0	Mexico	72
Asparagaceae	Agave datylio F.A.C. Weber	1	NA	NA	NA	0	0	0	Mexico	72
Asparagaceae	Agave datylio F.A.C. Weber	1	NA	NA	NA	0	0	0	Mexico	72
Asparagaceae	Agave datylio F.A.C. Weber	2	NA	NA	NA	0	0	0	Mexico	72
Asparagaceae	Agave fourcroydes Lem.	1	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave fourcroydes Lem.	1	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave fourcroydes Lem.	1	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave fourcroydes Lem.	1	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave fourcroydes Lem.	1	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave fourcroydes Lem.	2	NA	NA	NA	0	0	4	0	76
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	1	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hiemiflora Gentry	2	NA	NA	NA	0	0	1	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	1	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave hurteri Trel.	2	NA	NA	NA	0	0	0	0	70
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave karwinskii Zucc.	1	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave karwinskii Zucc.	2	NA	NA	NA	0	0	2	Mexico	78
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	1	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave kewensis Jacobi	2	NA	NA	NA	0	//P	1	Mexico	93
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	1	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroacantha Zucc.	2	NA	NA	NA	0	0	2	0	71
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	1	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave macroculmis Tod.	2	NA	NA	NA	0	0	9	0	67
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	1	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave mapisaga Trel.	2	NA	NA	NA	0	0	0	0	63
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave rhodacantha Trel.	1	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave rhodacantha Trel.	2	NA	NA	NA	0	0	4	Mexico	71
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	1	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave seemanniana Jacobi	2	NA	NA	NA	0	0	1	Mesoamerica	77
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	1	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave sisalana Perrine ex Engelm.	2	NA	NA	NA	0	0	6	0	68
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	1	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave stringens Trel.	2	NA	NA	NA	0	0	1	0	72
Asparagaceae	Agave tequilana F.A.C. Weber	1	NA	NA	NA	0	0	7	Mexico	75
Asparagaceae	Agave tequilana F.A.C. Weber	1	NA	NA	NA	0	0	7	Mexico	75
Asparagaceae	Agave tequilana F.A.C. Weber	1	NA	NA	NA	0	0	7	Mexico	75
Asparagaceae	Agave tequilana F.A.C. Weber	1	NA	NA	NA	0	0	7	Mexico	75
Asparagaceae	Agave tequilana F.A.C. Weber	1	NA	NA	NA	0	0	7	Mexico	75

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asparagaceae	Agave tequilana F.A.C. Weber	2	NA	NA	NA	0	0	7	Mexico	75
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	2	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	5	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus australis (A. Gray) J.D. Sauer	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus blitoides S. Watson	1	NA	NA	NA	0	0	0	0	55
Amaranthaceae	Amaranthus blitoides S. Watson	2	NA	NA	NA	0	0	0	0	55
Amaranthaceae	Amaranthus blitoides S. Watson	1	NA	NA	NA	0	0	0	0	55
Amaranthaceae	Amaranthus blitoides S. Watson	5	NA	NA	NA	0	0	0	0	55
Amaranthaceae	Amaranthus blitoides S. Watson	1	NA	NA	NA	0	0	0	0	55
Amaranthaceae	Amaranthus caudatus L.	2	NA	NA	NA	0	0	1	0	60
Amaranthaceae	Amaranthus caudatus L.	1	NA	NA	NA	0	0	1	0	60
Amaranthaceae	Amaranthus caudatus L.	5	NA	NA	NA	0	0	1	0	60
Amaranthaceae	Amaranthus caudatus L.	1	NA	NA	NA	0	0	1	0	60
Amaranthaceae	Amaranthus crassipes Schltdl.	1	NA	NA	NA	0	0	0	0	62
Amaranthaceae	Amaranthus crassipes Schltdl.	2	NA	NA	NA	0	0	0	0	62
Amaranthaceae	Amaranthus crassipes Schltdl.	1	NA	NA	NA	0	0	0	0	62
Amaranthaceae	Amaranthus crassipes Schltdl.	5	NA	NA	NA	0	0	0	0	62
Amaranthaceae	Amaranthus crassipes Schltdl.	1	NA	NA	NA	0	0	0	0	62
Amaranthaceae	Amaranthus cruentus L.	1	NA	NA	NA	0	0	0	0	53
Amaranthaceae	Amaranthus cruentus L.	1	NA	NA	NA	0	0	0	0	53

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Amaranthaceae	Amaranthus cruentus L.	5	NA	NA	NA	0	0	0	0	53
Amaranthaceae	Amaranthus cruentus L.	1	NA	NA	NA	0	0	0	0	53
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	1	NA	NA	NA	0	0	1	0	73
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	2	NA	NA	NA	0	0	1	0	73
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	5	NA	NA	NA	0	0	1	0	73
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	1	NA	NA	NA	0	0	1	0	73
Amaranthaceae	Amaranthus dubius Mart. ex Thell.	2	NA	NA	NA	0	0	1	0	73
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	60
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	2	NA	NA	NA	0	0	0	Mexico and USA	60
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	60
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	5	NA	NA	NA	0	0	0	Mexico and USA	60
Amaranthaceae	Amaranthus fimbriatus (Torr.) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	60
Amaranthaceae	Amaranthus greggii S. Watson	1	NA	NA	NA	0	0	1	Mexico and USA	67
Amaranthaceae	Amaranthus greggii S. Watson	2	NA	NA	NA	0	0	1	Mexico and USA	67
Amaranthaceae	Amaranthus greggii S. Watson	1	NA	NA	NA	0	0	1	Mexico and USA	67
Amaranthaceae	Amaranthus greggii S. Watson	5	NA	NA	NA	0	0	1	Mexico and USA	67
Amaranthaceae	Amaranthus greggii S. Watson	1	NA	NA	NA	0	0	1	Mexico and USA	67
Amaranthaceae	Amaranthus hybridus L.	5	NA	NA	NA	0	0	5	0	71

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Amaranthaceae	Amaranthus hypochondriacus L.	1	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus hypochondriacus L.	2	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus hypochondriacus L.	1	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus hypochondriacus L.	1	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus hypochondriacus L.	2	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus hypochondriacus L.	1	NA	NA	NA	0	0	0	0	57
Amaranthaceae	Amaranthus palmeri S. Watson	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus palmeri S. Watson	2	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus palmeri S. Watson	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus palmeri S. Watson	5	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus palmeri S. Watson	1	NA	NA	NA	0	0	1	0	67
Amaranthaceae	Amaranthus polygonoides L.	1	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	2	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	5	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	1	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	2	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	1	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus polygonoides L.	5	NA	NA	NA	0	0	3	0	68
Amaranthaceae	Amaranthus powellii S. Watson	5	NA	NA	NA	0	0	0	0	64
Amaranthaceae	Amaranthus scariosus Benth.	1	NA	NA	NA	0	0	2	Mesoamerica	70
Amaranthaceae	Amaranthus scariosus Benth.	2	NA	NA	NA	0	0	2	Mesoamerica	70
Amaranthaceae	Amaranthus scariosus Benth.	1	NA	NA	NA	0	0	2	Mesoamerica	70
Amaranthaceae	Amaranthus scariosus Benth.	5	NA	NA	NA	0	0	2	Mesoamerica	70
Amaranthaceae	Amaranthus scariosus Benth.	1	NA	NA	NA	0	0	2	Mesoamerica	70

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Amaranthaceae	Amaranthus spinosus L.	1	NA	NA	NA	0	0	2	0	63
Amaranthaceae	Amaranthus spinosus L.	2	NA	NA	NA	0	0	2	0	63
Amaranthaceae	Amaranthus spinosus L.	1	NA	NA	NA	0	0	2	0	63
Amaranthaceae	Amaranthus spinosus L.	5	NA	NA	NA	0	0	2	0	63
Amaranthaceae	Amaranthus spinosus L.	1	NA	NA	NA	0	0	2	0	63
Amaranthaceae	Amaranthus tamaulipensis Henrickson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus tamaulipensis Henrickson	2	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus tamaulipensis Henrickson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus tamaulipensis Henrickson	5	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus tamaulipensis Henrickson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	2	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	5	NA	NA	NA	0	0	0	Mexico and USA	64
Amaranthaceae	Amaranthus torreyi (A. Gray) Benth. ex S. Watson	1	NA	NA	NA	0	0	0	Mexico and USA	64
Annonaceae	Annona cherimola Mill.	1	NA	NA	NA	0	0	9	0	55
Annonaceae	Annona cherimola Mill.	1	NA	NA	NA	0	0	9	0	55
Annonaceae	Annona cherimola Mill.	1	NA	NA	NA	0	0	9	0	55
Annonaceae	Annona cherimola Mill.	1	NA	NA	NA	0	0	9	0	55
Annonaceae	Annona glabra L.	1	NA	NA	NA	0	0	9	0	63
Annonaceae	Annona glabra L.	1	NA	NA	NA	0	0	9	0	63
Annonaceae	Annona glabra L.	1	NA	NA	NA	0	0	9	0	63
Annonaceae	Annona glabra L.	1	NA	NA	NA	0	0	9	0	63
Annonaceae	Annona globiflora Schltdl.	1	NA	NA	NA	0	0	6	0	53

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Annonaceae	Annona globiflora Schltdl.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona globiflora Schltdl.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona globiflora Schltdl.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona liebmanniana Baill.	1	NA	NA	NA	0	0	1	Mesoamerica	62
Annonaceae	Annona liebmanniana Baill.	1	NA	NA	NA	0	0	1	Mesoamerica	62
Annonaceae	Annona liebmanniana Baill.	1	NA	NA	NA	0	0	1	Mesoamerica	62
Annonaceae	Annona liebmanniana Baill.	1	NA	NA	NA	0	0	1	Mesoamerica	62
Annonaceae	Annona longiflora S. Watson	1	NA	NA	NA	0	0	4	Mexico	61
Annonaceae	Annona longiflora S. Watson	1	NA	NA	NA	0	0	4	Mexico	61
Annonaceae	Annona longiflora S. Watson	1	NA	NA	NA	0	0	4	Mexico	61
Annonaceae	Annona longiflora S. Watson	1	NA	NA	NA	0	0	4	Mexico	61
Annonaceae	Annona longipes Saff.	1	NA	NA	NA	0	0	1	Mexico	62
Annonaceae	Annona longipes Saff.	1	NA	NA	NA	0	0	1	Mexico	62
Annonaceae	Annona longipes Saff.	1	NA	NA	NA	0	0	1	Mexico	62
Annonaceae	Annona longipes Saff.	1	NA	NA	NA	0	0	1	Mexico	62
Annonaceae	Annona macroprophyllata Donn. Sm.	1	NA	NA	NA	0	0	1	0	62
Annonaceae	Annona macroprophyllata Donn. Sm.	1	NA	NA	NA	0	0	1	0	62
Annonaceae	Annona macroprophyllata Donn. Sm.	1	NA	NA	NA	0	0	1	0	62
Annonaceae	Annona macroprophyllata Donn. Sm.	1	NA	NA	NA	0	0	1	0	62
Annonaceae	Annona muricata L.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona muricata L.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona muricata L.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona muricata L.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona palmeri Saff.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona palmeri Saff.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona palmeri Saff.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona palmeri Saff.	1	NA	NA	NA	0	0	3	0	54
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	1	NA	NA	NA	0	0	4	0	63
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	1	NA	NA	NA	0	0	4	0	63
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	1	NA	NA	NA	0	0	4	0	63
Annonaceae	Annona purpurea Moc. & Sessé ex Dunal	1	NA	NA	NA	0	0	4	0	63
Annonaceae	Annona reticulata L.	1	NA	NA	NA	0	0	9	0	52

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Annonaceae	Annona reticulata L.	1	NA	NA	NA	0	0	9	0	52
Annonaceae	Annona reticulata L.	1	NA	NA	NA	0	0	9	0	52
Annonaceae	Annona reticulata L.	1	NA	NA	NA	0	0	9	0	52
Annonaceae	Annona squamosa L.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona squamosa L.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona squamosa L.	1	NA	NA	NA	0	0	6	0	53
Annonaceae	Annona squamosa L.	1	NA	NA	NA	0	0	6	0	53
Bixaceae	Bixa orellana L.	1	NA	NA	NA	0	0	8	0	58
Malpighiaceae	Byrsonima crassifolia (L.) Kunth	1	NA	NA	NA	0	0	12	0	59
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	4	5.6	0.25	0.1	0	0	0	0	78
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	2	5.6	0.25	0.1	0	0	0	0	78
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	2	5.6	0.25	0.1	0	0	0	0	78
Solanaceae	Capsicum annuum L. var. glabriusculum (Dunal) Heiser & Pickersgill	1	5.6	0.25	0.1	0	0	0	0	78
Solanaceae	Capsicum frutescens L.	2	5.6	0.25	0.1	Cytoplasmic male sterility for Chili pepper	0	1	0	85
Solanaceae	Capsicum frutescens L.	4	5.6	0.25	0.1	Cytoplasmic male sterility for Chili pepper	0	1	0	85
Solanaceae	Capsicum frutescens L.	2	5.6	0.25	0.1	Cytoplasmic male sterility for Chili pepper	0	1	0	85
Solanaceae	Capsicum frutescens L.	1	5.6	0.25	0.1	Cytoplasmic male sterility for Chili pepper	0	1	0	85
Caricaceae	Carica papaya L.	3	NA	NA	NA	0	DD//	18	Mesoamerica	68
Juglandaceae	Carya illinoinensis (Wangenh.) K. Koch	3	NA	NA	NA	0	0	6	0	70
Juglandaceae	Carya myristiciformis (F. Michx.) Elliott	3	NA	NA	NA	0	0	0	Mexico and USA	65
Juglandaceae	Carya ovata (Mill.) K. Koch	3	NA	NA	NA	0	0	2	0	71
Juglandaceae	Carya palmeri W. E. Manning	3	NA	NA	NA	0	0	6	Mexico	66
Rosaceae	Crataegus mexicana D.C.	1	NA	NA	NA	0	0	13	0	52
Rosaceae	Crataegus tracyi Ashe ex Eggl. var. coahuilensis J.B. Phipps	1	NA	NA	NA	0	0	1	0	52

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Rosaceae	Crataegus uniflora Münchh.	1	NA	NA	NA	0	0	1	Mexico and USA	54
Cucurbitaceae	Cucurbita argyrosperma C. Huber	3	NA	NA	NA	0	0	0	0	51
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	2	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	2	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	3	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	1	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	3	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita argyrosperma C. Huber subsp. sororia (L. H. Bailey) L. Merrick & D. M. Bates	5	NA	NA	NA	0	0	12	Mesoamerica	75
Cucurbitaceae	Cucurbita cordata S. Watson	3	NA	NA	NA	0	0	2	Mexico	73
Cucurbitaceae	Cucurbita cordata S. Watson	3	NA	NA	NA	0	0	2	Mexico	73
Cucurbitaceae	Cucurbita cordata S. Watson	1	NA	NA	NA	0	0	2	Mexico	73
Cucurbitaceae	Cucurbita cordata S. Watson	2	NA	NA	NA	0	0	2	Mexico	73
Cucurbitaceae	Cucurbita cordata S. Watson	5	NA	NA	NA	0	0	2	Mexico	73
Cucurbitaceae	Cucurbita digitata A. Gray	3	NA	NA	NA	0	0	3	Mexico and USA	73
Cucurbitaceae	Cucurbita digitata A. Gray	3	NA	NA	NA	0	0	3	Mexico and USA	73

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cucurbitaceae	Cucurbita digitata A. Gray	1	NA	NA	NA	0	0	3	Mexico and USA	73
Cucurbitaceae	Cucurbita digitata A. Gray	2	NA	NA	NA	0	0	3	Mexico and USA	73
Cucurbitaceae	Cucurbita digitata A. Gray	5	NA	NA	NA	0	0	3	Mexico and USA	73
Cucurbitaceae	Cucurbita foetidissima Kunth	3	NA	NA	NA	0	0	15	Mexico and USA	76
Cucurbitaceae	Cucurbita foetidissima Kunth	3	NA	NA	NA	0	0	15	Mexico and USA	76
Cucurbitaceae	Cucurbita foetidissima Kunth	1	NA	NA	NA	0	0	15	Mexico and USA	76
Cucurbitaceae	Cucurbita foetidissima Kunth	2	NA	NA	NA	0	0	15	Mexico and USA	76
Cucurbitaceae	Cucurbita foetidissima Kunth	5	NA	NA	NA	0	0	15	Mexico and USA	76
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	3	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	4	Mesoamerica	77
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	3	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	4	Mesoamerica	77
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	1	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	4	Mesoamerica	77
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	5	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	4	Mesoamerica	77
Cucurbitaceae	Cucurbita lundelliana L. H. Bailey	2	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	4	Mesoamerica	77
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	3	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	7	Mexico	74
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	1	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	7	Mexico	74

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	3	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	7	Mexico	74
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	2	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	7	Mexico	74
Cucurbitaceae	Cucurbita okeechobeensis (Small) L. H. Bailey subsp. martinezii (L. H. Bailey) T. C. Andres & Nabhan ex T. W. Walters & D. S. Decker	5	NA	NA	NA	Disease resistance for Pepo pumpkin/Squash	0	7	Mexico	74
Cucurbitaceae	Cucurbita palmata S. Watson	3	NA	NA	NA	0	0	2	Mexico and USA	73
Cucurbitaceae	Cucurbita palmata S. Watson	3	NA	NA	NA	0	0	2	Mexico and USA	73
Cucurbitaceae	Cucurbita palmata S. Watson	1	NA	NA	NA	0	0	2	Mexico and USA	73
Cucurbitaceae	Cucurbita palmata S. Watson	2	NA	NA	NA	0	0	2	Mexico and USA	73
Cucurbitaceae	Cucurbita palmata S. Watson	5	NA	NA	NA	0	0	2	Mexico and USA	73
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	5	NA	NA	NA	0	0	6	Mexico	74
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	3	NA	NA	NA	0	0	6	Mexico	74
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	3	NA	NA	NA	0	0	6	Mexico	74
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	1	NA	NA	NA	0	0	6	Mexico	74
Cucurbitaceae	Cucurbita pedatifolia L. H. Bailey	2	NA	NA	NA	0	0	6	Mexico	74
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	1	NA	NA	NA	0	0	2	Mexico	77
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	1	NA	NA	NA	0	0	2	Mexico	77

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	3	NA	NA	NA	0	0	2	Mexico	77
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	2	NA	NA	NA	0	0	2	Mexico	77
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	3	NA	NA	NA	0	0	2	Mexico	77
Cucurbitaceae	Cucurbita pepo L. subsp. fraterna (L. H. Bailey) Lira et al.	5	NA	NA	NA	0	0	2	Mexico	77
Cucurbitaceae	Cucurbita radicans Naudin	3	NA	NA	NA	0	0	7	Mexico	72
Cucurbitaceae	Cucurbita radicans Naudin	3	NA	NA	NA	0	0	7	Mexico	72
Cucurbitaceae	Cucurbita radicans Naudin	1	NA	NA	NA	0	0	7	Mexico	72
Ebenaceae	Diospyros conzattii Standl.	1	NA	NA	NA	0	0	0	Mexico	58
Ebenaceae	Diospyros conzattii Standl.	1	NA	NA	NA	0	0	0	Mexico	58
Ebenaceae	Diospyros johnstoniana Standl. & Steyerm.	1	NA	NA	NA	0	//P	0	0	53
Ebenaceae	Diospyros johnstoniana Standl. & Steyerm.	1	NA	NA	NA	0	//P	0	0	53
Ebenaceae	Diospyros rosei Standl.	1	NA	NA	NA	0	0	1	Mexico	53
Ebenaceae	Diospyros rosei Standl.	1	NA	NA	NA	0	0	1	Mexico	53
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	4	9.7	0	1.1	Pest resistance for Cotton	0	6	Mexico	71
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	2	9.7	0	1.1	Pest resistance for Cotton	0	6	Mexico	71
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	4	9.7	0	1.1	Pest resistance for Cotton	0	6	Mexico	71
Malvaceae	Gossypium aridum (Rose & Standl.) Skovst.	2	9.7	0	1.1	Pest resistance for Cotton	0	6	Mexico	71
Malvaceae	Gossypium barbadense L.	4	9.7	0	1.1	Crop quality for Cotton	0	7	0	66
Malvaceae	Gossypium barbadense L.	2	9.7	0	1.1	Crop quality for Cotton	0	7	0	66
Malvaceae	Gossypium barbadense L.	4	9.7	0	1.1	Crop quality for Cotton	0	7	0	66
Malvaceae	Gossypium barbadense L.	2	9.7	0	1.1	Crop quality for Cotton	0	7	0	66
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	4	9.7	0	1.1	0	0	0	Mexico	66
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	2	9.7	0	1.1	0	0	0	Mexico	66
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	4	9.7	0	1.1	0	0	0	Mexico	66
Malvaceae	Gossypium gossypioides (Ulbr.) Standl.	2	9.7	0	1.1	0	0	0	Mexico	66
Malvaceae	Gossypium hirsutum L.	4	9.7	0	1.1	0	0	25	0	74

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Malvaceae	Gossypium hirsutum L.	2	9.7	0	1.1	0	0	25	0	74
Malvaceae	Gossypium hirsutum L.	4	9.7	0	1.1	0	0	25	0	74
Malvaceae	Gossypium hirsutum L.	2	9.7	0	1.1	0	0	25	0	74
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	4	9.7	0	1.1	0	0	1	Mexico	73
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	2	9.7	0	1.1	0	0	1	Mexico	73
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	4	9.7	0	1.1	0	0	1	Mexico	73
Malvaceae	Gossypium schwendimanii Fryxell & S. D. Koch	2	9.7	0	1.1	0	0	1	Mexico	73
Malvaceae	Gossypium thurberi Tod.	4	9.7	0	1.1	0	0	1	Mexico and USA	73
Malvaceae	Gossypium thurberi Tod.	2	9.7	0	1.1	0	0	1	Mexico and USA	73
Asteraceae (Compositae)	Helianthus annuus L.	10	8.8	0	0.99	Cytoplasmic male sterility for Sunflower	LC//	10	0	68
Asteraceae (Compositae)	Helianthus californicus DC.	10	8.8	0	0.99	Disease resistance for Sunflower	LC//	0	Mexico and USA	54
Asteraceae (Compositae)	Helianthus ciliaris DC.	10	8.8	0	0.99	Disease resistance for Sunflower, Pest resistance for Sunflower	0	0	Mexico and USA	58
Asteraceae (Compositae)	Helianthus gracilentus A. Gray	10	8.8	0	0.99	0	0	0	Mexico and USA	54
Asteraceae (Compositae)	Helianthus hirsutus Raf.	10	8.8	0	0.99	Pest resistance for Sunflower	LC//	0	0	54
Asteraceae (Compositae)	Helianthus laciniatus A. Gray	10	8.8	0	0.99	0	0	0	Mexico and USA	54

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee	10	8.8	0	0.99	Crop quality for Sunflower, Disease resistance for Sunflower	DD//	0	Mexico and USA	57
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee subsp. niveus	10	8.8	0	0.99	0	0	0	Mexico	55
Asteraceae (Compositae)	Helianthus niveus (Benth.) Brandegee subsp. tephrodes (A. Gray) Heiser	10	8.8	0	0.99	0	0	0	Mexico and USA	55
Cactaceae	Hylocereus ocamponis (Salm-Dyck) Britton & Rose	1	NA	NA	NA	0	LC/II/	6	Mexico	65
Convolvulaceae	Ipomoea batatas (L.) Lam.	4	1	0	0	0	0	1	0	56
Convolvulaceae	Ipomoea leucantha Jacq.	4	1	0	0	Gene transfer for Sweet-potato	0	1	0	55
Convolvulaceae	Ipomoea tabascana J.A. McDonald & D.F. Austin	4	1	0	0	0	0	0	Mexico	49
Convolvulaceae	Ipomoea tabascana J.A. McDonald & D.F. Austin	4	1	0	0	0	0	0	Mexico	49
Convolvulaceae	Ipomoea tiliacea (Willd.) Choisy	4	1	0	0	0	0	1	0	55
Convolvulaceae	Ipomoea trifida (Kunth) G. Don	4	1	0	0	Disease resistance for Sweet-potato, Pest resistance for Sweet-potato	0	1	0	60
Convolvulaceae	Ipomoea trifida (Kunth) G. Don	4	1	0	0	Disease resistance for Sweet-potato, Pest resistance for Sweet-potato	0	1	0	60
Convolvulaceae	Ipomoea triloba L.	4	1	0	0	Drought resistance for Sweet-potato	0	1	0	57
Caricaceae	Jacaratia dolichaula (Donn. Sm.) Woodson	3	NA	NA	NA	0	0	4	Mesoamerica	63
Caricaceae	Jacaratia mexicana A. DC.	3	NA	NA	NA	0	0	11	Mesoamerica	63
Caricaceae	Jarilla caudata (Brandegee) Standl.	3	NA	NA	NA	0	0	4	Mexico	64

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Caricaceae	Jarilla heterophylla (Cerv. ex La Llave) Rusby	3	NA	NA	NA	0	0	4	Mexico	64
Euphorbiaceae	Jatropha andrieuxii Müll. Arg.	1	NA	NA	NA	0	0	3	0	54
Euphorbiaceae	Jatropha bartlettii Wilbur	1	NA	NA	NA	0	0	1	0	57
Euphorbiaceae	Jatropha mcvaughii Dehgan & G.L. Webster	1	NA	NA	NA	0	0	2	0	55
Euphorbiaceae	Jatropha pseudocurcas Müll. Arg.	1	NA	NA	NA	0	0	5	0	49
Euphorbiaceae	Jatropha rufescens Brandegee	1	NA	NA	NA	0	0	1	0	55
Fabaceae (Leguminosae)	Leucaena confertiflora Zárate	1	NA	NA	NA	0	0	0	Mexico	50
Fabaceae (Leguminosae)	Leucaena diversifolia (Schltdl.) Benth.	1	NA	NA	NA	Cold tolerance for leucaena, disease resistance for leucaena, potential gene source for leucaena	0	3	Mesoamerica	60
Fabaceae (Leguminosae)	Leucaena esculenta (Moc. & Sessé ex DC.) Benth.	1	NA	NA	NA	0	0	9	Mexico	54
Fabaceae (Leguminosae)	Leucaena lanceolata S. Watson	1	NA	NA	NA	0	0	6	Mexico	55
Fabaceae (Leguminosae)	Leucaena leucocephala (Lam.) de Wit	7	NA	NA	NA	0	0	13	Mesoamerica	60
Euphorbiaceae	Manihot aesculifolia (Kunth) Pohl	6	0.1	0	0	0	0	14	Mesoamerica	53
Euphorbiaceae	Manihot angustiloba (Torr.) Mull. Arg.	6	0.1	0	0	Crop quality for Cassava for high starch content	0	17	Mexico and USA	52
Euphorbiaceae	Manihot auriculata McVaugh	6	0.1	0	0	0	0	2	Mexico	65
Euphorbiaceae	Manihot caudata Greenm.	6	0.1	0	0	0	0	10	Mexico	61
Euphorbiaceae	Manihot chlorosticta Standl. & Goldman	6	0.1	0	0	Source of waxy-starch, Poor-soil tolerance for Cassava	0	10	Mexico	61
Euphorbiaceae	Manihot crassisepala Pax & K. Hoffm.	6	0.1	0	0	Source of waxy-starch	0	3	Mexico	56
Euphorbiaceae	Manihot davisiae Croizat	6	0.1	0	0	0	0	3	Mexico and USA	63
Euphorbiaceae	Manihot foetida (Kunth) Pohl	6	0.1	0	0	0	0	5	Mexico	63

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Euphorbiaceae	Manihot michaelis McVaugh	6	0.1	0	0	0	0	3	Mexico	63
Euphorbiaceae	Manihot oaxacana D. J. Rogers & Appan	6	0.1	0	0	0	0	1	Mexico	66
Euphorbiaceae	Manihot obovata J. Jimenez Ram.	6	0.1	0	0	0	0	1	Mexico	68
Euphorbiaceae	Manihot pauciflora Brandegee	6	0.1	0	0	0	0	2	Mexico	65
Euphorbiaceae	Manihot pringlei S. Watson	6	0.1	0	0	Crop quality for Cassava for reduced HCN	0	5	Mexico	62
Euphorbiaceae	Manihot rhomboidea Mull. Arg.	6	0.1	0	0	0	0	15	Mesoamerica	53
Euphorbiaceae	Manihot rhomboidea Müll. Arg. subsp. microcarpa (Müll. Arg.) D. J. Rogers & Appan	6	0.1	0	0	0	0	0	Mesoamerica	50
Euphorbiaceae	Manihot rubricaulis I. M. Johnst.	6	0.1	0	0	Cold tolerance for Cassava, Drought resistance for Cassava	0	6	Mexico	64
Euphorbiaceae	Manihot rubricaulis I. M. Johnst. subsp. isoloba (Standl.) D. J. Rogers & Appan	6	0.1	0	0	0	0	0	Mexico	50
Euphorbiaceae	Manihot rubricaulis I. M. Johnst. subsp. rubricaulis	6	0.1	0	0	0	0	0	Mexico	50
Euphorbiaceae	Manihot subspicata D. J. Rogers & Appan	6	0.1	0	0	0	0	3	Mexico	64
Euphorbiaceae	Manihot tomatophylla Standl.	6	0.1	0	0	0	0	3	Mexico	65
Euphorbiaceae	Manihot walkerae Croizat	6	0.1	0	0	0	0	1	Mexico and USA	57
Sapotaceae	Manilkara chicle (Pittier) Gilly	1	NA	NA	NA	0	0	2	0	62
Sapotaceae	Manilkara chicle (Pittier) Gilly	1	NA	NA	NA	0	0	2	0	62
Sapotaceae	Manilkara zapota (L.) P. Royen	1	NA	NA	NA	0	0	14	0	63
Sapotaceae	Manilkara zapota (L.) P. Royen	1	NA	NA	NA	0	0	14	0	63
Cactaceae	Opuntia atropes Rose	3	NA	NA	NA	0	/II/	5	0	66

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cactaceae	Opuntia atropes Rose	1	NA	NA	NA	0	/II/	5	0	66
Cactaceae	Opuntia atropes Rose	1	NA	NA	NA	0	/II/	5	0	66
Cactaceae	Opuntia atropes Rose	1	NA	NA	NA	0	/II/	5	0	66
Cactaceae	Opuntia crassa Haw.	3	NA	NA	NA	0	/II/	0	0	53
Cactaceae	Opuntia crassa Haw.	1	NA	NA	NA	0	/II/	0	0	53
Cactaceae	Opuntia crassa Haw.	1	NA	NA	NA	0	/II/	0	0	53
Cactaceae	Opuntia crassa Haw.	1	NA	NA	NA	0	/II/	0	0	53
Cactaceae	Opuntia deamii Rose	3	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia deamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia deamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia deamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia eichlamii Rose	3	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia eichlamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia eichlamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia eichlamii Rose	1	NA	NA	NA	0	/II/	1	0	60
Cactaceae	Opuntia ficus-indica (L.) Mill.	3	NA	NA	NA	0	DD/II/	8	0	58
Cactaceae	Opuntia ficus-indica (L.) Mill.	1	NA	NA	NA	0	DD/II/	8	0	58
Cactaceae	Opuntia ficus-indica (L.) Mill.	1	NA	NA	NA	0	DD/II/	8	0	58
Cactaceae	Opuntia ficus-indica (L.) Mill.	1	NA	NA	NA	0	DD/II/	8	0	58
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	3	NA	NA	NA	0	LC/II/	11	Mexico	71
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	1	NA	NA	NA	0	LC/II/	11	Mexico	71
Cactaceae	Opuntia hyptiacantha F.A.C. Weber	1	NA	NA	NA	0	LC/II/	11	Mexico	71
Cactaceae	Opuntia lasiacantha Pfeiff.	3	NA	NA	NA	0	LC/II/	12	0	64
Cactaceae	Opuntia lasiacantha Pfeiff.	1	NA	NA	NA	0	LC/II/	12	0	64
Cactaceae	Opuntia lasiacantha Pfeiff.	1	NA	NA	NA	0	LC/II/	12	0	64
Cactaceae	Opuntia lasiacantha Pfeiff.	1	NA	NA	NA	0	LC/II/	12	0	64
Cactaceae	Opuntia spinulifera Salm-Dyck	3	NA	NA	NA	0	/II/	3	0	77
Cactaceae	Opuntia spinulifera Salm-Dyck	1	NA	NA	NA	0	/II/	3	0	77
Cactaceae	Opuntia spinulifera Salm-Dyck	1	NA	NA	NA	0	/II/	3	0	77
Cactaceae	Opuntia streptacantha Lem.	3	NA	NA	NA	0	LC/II/	13	0	70

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cactaceae	Opuntia streptacantha Lem.	1	NA	NA	NA	0	LC/II/	13	0	70
Cactaceae	Opuntia streptacantha Lem.	1	NA	NA	NA	0	LC/II/	13	0	70
Cactaceae	Opuntia streptacantha Lem.	1	NA	NA	NA	0	LC/II/	13	0	70
Cactaceae	Opuntia undulata Griffiths	3	NA	NA	NA	0	/II/	0	0	60
Cactaceae	Opuntia undulata Griffiths	1	NA	NA	NA	0	/II/	0	0	60
Cactaceae	Opuntia undulata Griffiths	1	NA	NA	NA	0	/II/	0	0	60
Cactaceae	Opuntia undulata Griffiths	1	NA	NA	NA	0	/II/	0	0	60
Cactaceae	Opuntia velutina F.A.C. Weber	3	NA	NA	NA	0	DD/II/	4	Mexico	74
Cactaceae	Opuntia velutina F.A.C. Weber	1	NA	NA	NA	0	DD/II/	4	Mexico	74
Cactaceae	Opuntia velutina F.A.C. Weber	1	NA	NA	NA	0	DD/II/	4	Mexico	74
Cactaceae	Opuntia velutina F.A.C. Weber	1	NA	NA	NA	0	DD/II/	4	Mexico	74
Cactaceae	Opuntia wilcoxii Britton & Rose	3	NA	NA	NA	0	LC/II/	6	0	65
Cactaceae	Opuntia wilcoxii Britton & Rose	1	NA	NA	NA	0	LC/II/	6	0	65
Cactaceae	Opuntia wilcoxii Britton & Rose	1	NA	NA	NA	0	LC/II/	6	0	65
Cactaceae	Opuntia wilcoxii Britton & Rose	1	NA	NA	NA	0	LC/II/	6	0	65
Fabaceae (Leguminosae)	Pachyrhizus erosus (L.) Urb.	2	NA	NA	NA	0	0	0	0	61
Fabaceae (Leguminosae)	Pachyrhizus ferrugineus (Piper) M. Sorensen	2	NA	NA	NA	0	0	0	0	55
Lauraceae	Persea americana Mill.	2	NA	NA	NA	0	0	13	0	69
Lauraceae	Persea schiedeana Nees	2	NA	NA	NA	0	VU//	2	0	71
Lauraceae	Persea schiedeana Nees	2	NA	NA	NA	0	VU//	2	0	71
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray	4	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	72
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray	1	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	72
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. acutifolius	4	96.4	5.22	0.44	0	0	0	0	76
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. acutifolius	1	96.4	5.22	0.44	0	0	0	0	76
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. tenuifolius A. Gray	1	96.4	5.22	0.44	0	0	0	Mexico and USA	74
Fabaceae (Leguminosae)	Phaseolus acutifolius A. Gray var. tenuifolius A. Gray	4	96.4	5.22	0.44	0	0	0	Mexico and USA	74
Fabaceae (Leguminosae)	Phaseolus albescens McVaugh ex R. Ramirez & A. Delgado	4	96.4	5.22	0.44	0	0	0	Mexico	74

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	**Scientific name**	**Uses**	**Energy (Kcal/capita/day)**	**Protein (g/capita/day)**	**Fat (g/capita/day)**	**Confirmed or Potential use**	**Threat status (IUCN/CITES/NOM-059)‡**	**Distribution§**	**Level of endemism**	**Score**
Fabaceae (Leguminosae)	Phaseolus albescens McVaugh ex R. Ramirez & A. Delgado	1	96.4	5.22	0.44	0	0	0	Mexico	74
Fabaceae (Leguminosae)	Phaseolus angustissimus A. Gray	4	96.4	5.22	0.44	Cold tolerance for Common bean	0	0	Mexico and USA	66
Fabaceae (Leguminosae)	Phaseolus carteri Freytag & Debouck	4	96.4	5.22	0.44	0	0	0	Mexico	72
Fabaceae (Leguminosae)	Phaseolus carteri Freytag & Debouck	1	96.4	5.22	0.44	0	0	0	Mexico	72
Fabaceae (Leguminosae)	Phaseolus coccineus L.	4	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	80
Fabaceae (Leguminosae)	Phaseolus coccineus L.	1	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	80
Fabaceae (Leguminosae)	Phaseolus coccineus L.	1	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	80
Fabaceae (Leguminosae)	Phaseolus coccineus L. subsp. coccineus	1	96.4	5.22	0.44	0	0	0	0	57
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	4	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	82
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	1	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	82
Fabaceae (Leguminosae)	Phaseolus dumosus Macfad.	1	96.4	5.22	0.44	Disease resitance for Common bean	0	0	0	82
Fabaceae (Leguminosae)	Phaseolus filiformis Benth.	4	96.4	5.22	0.44	0	0	0	Mexico and USA	72
Fabaceae (Leguminosae)	Phaseolus filiformis Benth.	1	96.4	5.22	0.44	0	0	0	Mexico and USA	72
Fabaceae (Leguminosae)	Phaseolus maculatus Scheele subsp. ritensis (M. E. Jones) Freytag	4	96.4	5.22	0.44	Disease resistance for Lima bean	0	0	Mexico and USA	72
Fabaceae (Leguminosae)	Phaseolus maculatus Scheele subsp. ritensis (M. E. Jones) Freytag	1	96.4	5.22	0.44	Disease resistance for Lima bean	0	0	Mexico and USA	72
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	1	96.4	5.22	0.44	0	0	0	Mesoamerica	78
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	4	96.4	5.22	0.44	0	0	0	Mesoamerica	78
Fabaceae (Leguminosae)	Phaseolus parvifolius Freytag	1	96.4	5.22	0.44	0	0	0	Mesoamerica	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	1	96.4	5.22	0.44	0	0	0	0	78

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	1	96.4	5.22	0.44	0	0	0	0	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L.	1	96.4	5.22	0.44	0	0	0	0	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	4	96.4	5.22	0.44	0	0	0	0	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	1	96.4	5.22	0.44	0	0	0	0	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	1	96.4	5.22	0.44	0	0	0	0	78
Fabaceae (Leguminosae)	Phaseolus vulgaris L. var. aborigineus (Burkart) Baudet	4	96.4	5.22	0.44	0	0	0	0	78
Solanaceae	Physalis acutifolia (Miers) Sandwith	2	NA	NA	NA	0	0	0	Mexico and USA	56
Solanaceae	Physalis ampla Waterf.	2	NA	NA	NA	0	0	0	0	49
Solanaceae	Physalis angulata L.	2	NA	NA	NA	0	0	2	0	66
Solanaceae	Physalis crassifolia Benth.	2	NA	NA	NA	0	0	0	0	49
Solanaceae	Physalis lagascae Roem. & Schult.	2	NA	NA	NA	0	0	2	0	55
Solanaceae	Physalis lagascae Roem. & Schult.	1	NA	NA	NA	0	0	2	0	55
Solanaceae	Physalis microcarpa Urb. & Ekman	2	NA	NA	NA	0	0	1	0	56
Solanaceae	Physalis philadelphica Lam.	2	NA	NA	NA	0	0	2	0	61
Solanaceae	Physalis sulphurea (Fernald) Waterf.	2	NA	NA	NA	0	0	0	0	49
Pinaceae	Pinus ayacahuite C. Ehrenb. ex Schltdl.	1	NA	NA	NA	0	0	21	Mesoamerica	54
Pinaceae	Pinus cembroides Zucc.	1	NA	NA	NA	0	LC//	20	Mexico and USA	55
Pinaceae	Pinus maximartinezii Rzed.	1	NA	NA	NA	0	EN//P	2	Mexico	80
Pinaceae	Pinus monophylla Torr. & Frém.	1	NA	NA	NA	0	LC//Pr	1	Mexico and USA	61
Pinaceae	Pinus quadrifolia Parl. ex Sudw.	1	NA	NA	NA	0	LC//Pr	4	Mexico and USA	62
Fabaceae (Leguminosae)	Pithecellobium dulce (Roxb.) Benth.	10	NA	NA	NA	0	0	19	0	50

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Asteraceae (Compositae)	Porophyllum gracile Benth.	1	NA	NA	NA	0	0	0	Mexico and USA	48
Asteraceae (Compositae)	Porophyllum gracile Benth.	1	NA	NA	NA	0	0	0	Mexico and USA	48
Asteraceae (Compositae)	Porophyllum linaria (Cav.) DC.	1	NA	NA	NA	0	0	11	Mexico	52
Asteraceae (Compositae)	Porophyllum linaria (Cav.) DC.	1	NA	NA	NA	0	0	11	Mexico	52
Asteraceae (Compositae)	Porophyllum ruderale (Jacq.) Cass.	1	NA	NA	NA	0	0	0	0	48
Asteraceae (Compositae)	Porophyllum ruderale (Jacq.) Cass.	1	NA	NA	NA	0	0	0	0	48
Asteraceae (Compositae)	Porophyllum scoparium A. Gray	1	NA	NA	NA	0	0	0	Mexico and USA	48
Asteraceae (Compositae)	Porophyllum scoparium A. Gray	1	NA	NA	NA	0	0	0	Mexico and USA	48
Asteraceae (Compositae)	Porophyllum warnockii R.R. Johnson	1	NA	NA	NA	0	0	1	Mexico	48
Asteraceae (Compositae)	Porophyllum warnockii R.R. Johnson	1	NA	NA	NA	0	0	1	Mexico	48
Portulacaceae	Portulaca halimoides L.	1	NA	NA	NA	0	0	3	0	54
Portulacaceae	Portulaca umbraticola Kunth	1	NA	NA	NA	0	0	6	0	53
Sapotaceae	Pouteria belizensis (Standl.) Cronquist	1	NA	NA	NA	0	VU//	1	0	52
Sapotaceae	Pouteria belizensis (Standl.) Cronquist	1	NA	NA	NA	0	VU//	1	0	52
Sapotaceae	Pouteria campechiana (Kunth) Baehni	1	NA	NA	NA	0	0	10	Mesoamerica	58
Sapotaceae	Pouteria campechiana (Kunth) Baehni	1	NA	NA	NA	0	0	10	Mesoamerica	58
Sapotaceae	Pouteria durlandii (Standl.) Baehni	1	NA	NA	NA	0	0	1	0	59
Sapotaceae	Pouteria durlandii (Standl.) Baehni	1	NA	NA	NA	0	0	1	0	59
Sapotaceae	Pouteria glomerata (Miq.) Radlk.	1	NA	NA	NA	0	0	2	0	58
Sapotaceae	Pouteria glomerata (Miq.) Radlk.	1	NA	NA	NA	0	0	2	0	58
Sapotaceae	Pouteria reticulata (Engl.) Eyma	1	NA	NA	NA	0	0	2	0	58

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Sapotaceae	Pouteria reticulata (Engl.) Eyma	1	NA	NA	NA	0	0	2	0	58
Sapotaceae	Pouteria rhynchocarpa T.D. Penn.	1	NA	NA	NA	0	EN//	1	0	52
Sapotaceae	Pouteria rhynchocarpa T.D. Penn.	1	NA	NA	NA	0	EN//	1	0	52
Sapotaceae	Pouteria sapota (Jacq.) H.E. Moore & Stearn	1	NA	NA	NA	0	0	3	0	60
Sapotaceae	Pouteria sapota (Jacq.) H.E. Moore & Stearn	1	NA	NA	NA	0	0	3	0	60
Sapotaceae	Pouteria torta (Mart.) Radlk.	1	NA	NA	NA	0	0	1	0	59
Sapotaceae	Pouteria torta (Mart.) Radlk.	1	NA	NA	NA	0	0	1	0	59
Myrtaceae	Psidium friedrichsthalianum (O. Berg) Nied.	1	NA	NA	NA	Potential for disease resistance in guava	0	4	0	63
Myrtaceae	Psidium friedrichsthalianum (O. Berg) Nied.	1	NA	NA	NA	Potential for disease resistance in guava	0	4	0	63
Myrtaceae	Psidium guajava L.	1	NA	NA	NA	0	0	25	0	61
Myrtaceae	Psidium guajava L.	1	NA	NA	NA	0	0	25	0	61
Myrtaceae	Psidium guineense Sw.	1	NA	NA	NA	0	0	11	0	63
Myrtaceae	Psidium guineense Sw.	1	NA	NA	NA	0	0	11	0	63
Myrtaceae	Psidium oligospermum DC.	1	NA	NA	NA	0	0	0	0	61
Myrtaceae	Psidium oligospermum DC.	1	NA	NA	NA	0	0	0	0	61
Myrtaceae	Psidium salutare (Kunth) O. Berg	1	NA	NA	NA	0	0	4	0	63
Myrtaceae	Psidium salutare (Kunth) O. Berg	1	NA	NA	NA	0	0	4	0	63
Lamiaceae (Labiatae)	Salvia axillaris Moc. & Sessé	1	NA	NA	NA	0	0	7	Mexico	53
Lamiaceae (Labiatae)	Salvia axillaris Moc. & Sessé	1	NA	NA	NA	0	0	7	Mexico	53
Lamiaceae (Labiatae)	Salvia candicans M. Martens & Galeotti	1	NA	NA	NA	0	0	3	0	54
Lamiaceae (Labiatae)	Salvia candicans M. Martens & Galeotti	1	NA	NA	NA	0	0	3	0	54
Lamiaceae (Labiatae)	Salvia carnea Kunth	1	NA	NA	NA	0	0	9	0	52
Lamiaceae (Labiatae)	Salvia carnea Kunth	1	NA	NA	NA	0	0	9	0	52

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Lamiaceae (Labiatae)	Salvia cinnabarina M. Martens & Galeotti	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia cinnabarina M. Martens & Galeotti	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia coccinea Buc'hoz ex Etl.	1	NA	NA	NA	0	0	18	0	59
Lamiaceae (Labiatae)	Salvia coccinea Buc'hoz ex Etl.	1	NA	NA	NA	0	0	18	0	59
Lamiaceae (Labiatae)	Salvia columbariae Benth.	1	NA	NA	NA	0	0	0	Mexico and USA	57
Lamiaceae (Labiatae)	Salvia columbariae Benth.	1	NA	NA	NA	0	0	0	Mexico and USA	57
Lamiaceae (Labiatae)	Salvia elegans Vahl	1	NA	NA	NA	0	0	16	Mexico	62
Lamiaceae (Labiatae)	Salvia elegans Vahl	1	NA	NA	NA	0	0	16	Mexico	62
Lamiaceae (Labiatae)	Salvia fluviatilis Fernald	1	NA	NA	NA	0	0	6	Mexico	53
Lamiaceae (Labiatae)	Salvia fluviatilis Fernald	1	NA	NA	NA	0	0	6	Mexico	53
Lamiaceae (Labiatae)	Salvia helianthemifolia Benth.	1	NA	NA	NA	0	0	8	Mexico	53
Lamiaceae (Labiatae)	Salvia helianthemifolia Benth.	1	NA	NA	NA	0	0	8	Mexico	53
Lamiaceae (Labiatae)	Salvia hispanica L.	1	NA	NA	NA	0	0	17	Mesoamerica	57
Lamiaceae (Labiatae)	Salvia laevis Benth.	1	NA	NA	NA	0	0	9	Mexico	52
Lamiaceae (Labiatae)	Salvia laevis Benth.	1	NA	NA	NA	0	0	9	Mexico	52
Lamiaceae (Labiatae)	Salvia lasiantha Benth.	1	NA	NA	NA	0	0	8	0	53
Lamiaceae (Labiatae)	Salvia lasiantha Benth.	1	NA	NA	NA	0	0	8	0	53
Lamiaceae (Labiatae)	Salvia lasiocephala Hook. & Arn.	1	NA	NA	NA	0	0	9	0	52
Lamiaceae (Labiatae)	Salvia lasiocephala Hook. & Arn.	1	NA	NA	NA	0	0	9	0	52
Lamiaceae (Labiatae)	Salvia leucantha Cav.	1	NA	NA	NA	0	0	8	0	53

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Lamiaceae (Labiatae)	Salvia leucantha Cav.	1	NA	NA	NA	0	0	8	0	53
Lamiaceae (Labiatae)	Salvia longispicata M. Martens & Galeotti	1	NA	NA	NA	0	0	5	Mexico	53
Lamiaceae (Labiatae)	Salvia longispicata M. Martens & Galeotti	1	NA	NA	NA	0	0	5	Mexico	53
Lamiaceae (Labiatae)	Salvia longistyla Benth.	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia longistyla Benth.	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia mexicana L.	1	NA	NA	NA	0	0	17	0	50
Lamiaceae (Labiatae)	Salvia mexicana L.	1	NA	NA	NA	0	0	17	0	50
Lamiaceae (Labiatae)	Salvia microphylla Kunth	1	NA	NA	NA	0	0	18	Mexico	59
Lamiaceae (Labiatae)	Salvia microphylla Kunth	1	NA	NA	NA	0	0	18	Mexico	59
Lamiaceae (Labiatae)	Salvia misella Kunth	1	NA	NA	NA	0	0	5	0	53
Lamiaceae (Labiatae)	Salvia misella Kunth	1	NA	NA	NA	0	0	5	0	53
Lamiaceae (Labiatae)	Salvia mocinoi Benth.	1	NA	NA	NA	0	0	0	Mesoamerica	55
Lamiaceae (Labiatae)	Salvia mocinoi Benth.	1	NA	NA	NA	0	0	0	Mesoamerica	55
Lamiaceae (Labiatae)	Salvia oaxacana Fernald	1	NA	NA	NA	0	0	3	0	54
Lamiaceae (Labiatae)	Salvia oaxacana Fernald	1	NA	NA	NA	0	0	3	0	54
Lamiaceae (Labiatae)	Salvia occidentalis Sw.	1	NA	NA	NA	0	0	10	0	59
Lamiaceae (Labiatae)	Salvia occidentalis Sw.	1	NA	NA	NA	0	0	10	0	59
Lamiaceae (Labiatae)	Salvia patens Cav.	1	NA	NA	NA	0	0	0	0	55
Lamiaceae (Labiatae)	Salvia patens Cav.	1	NA	NA	NA	0	0	0	0	55
Lamiaceae (Labiatae)	Salvia polystachia Cav.	1	NA	NA	NA	0	0	15	Mesoamerica	54

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Lamiaceae (Labiatae)	Salvia polystachia Cav.	1	NA	NA	NA	0	0	15	Mesoamerica	54
Lamiaceae (Labiatae)	Salvia prunelloides Kunth	1	NA	NA	NA	0	0	12	Mexico	52
Lamiaceae (Labiatae)	Salvia prunelloides Kunth	1	NA	NA	NA	0	0	12	Mexico	52
Lamiaceae (Labiatae)	Salvia purpurea Cav.	1	NA	NA	NA	0	0	9	0	52
Lamiaceae (Labiatae)	Salvia purpurea Cav.	1	NA	NA	NA	0	0	9	0	52
Lamiaceae (Labiatae)	Salvia recurva Benth.	1	NA	NA	NA	0	0	2	0	50
Lamiaceae (Labiatae)	Salvia recurva Benth.	1	NA	NA	NA	0	0	2	0	50
Lamiaceae (Labiatae)	Salvia regla Cav.	1	NA	NA	NA	0	0	12	Mexico and USA	52
Lamiaceae (Labiatae)	Salvia regla Cav.	1	NA	NA	NA	0	0	12	Mexico and USA	52
Lamiaceae (Labiatae)	Salvia sanctae-luciae Seem.	1	NA	NA	NA	0	0	1	0	55
Lamiaceae (Labiatae)	Salvia sanctae-luciae Seem.	1	NA	NA	NA	0	0	1	0	55
Lamiaceae (Labiatae)	Salvia setulosa Fernald	1	NA	NA	NA	0	0	2	0	54
Lamiaceae (Labiatae)	Salvia setulosa Fernald	1	NA	NA	NA	0	0	2	0	54
Lamiaceae (Labiatae)	Salvia splendens Sellow ex Wied-Neuw.	1	NA	NA	NA	0	0	1	0	55
Lamiaceae (Labiatae)	Salvia splendens Sellow ex Wied-Neuw.	1	NA	NA	NA	0	0	1	0	55
Lamiaceae (Labiatae)	Salvia stricta Sessé & Moc.	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia stricta Sessé & Moc.	1	NA	NA	NA	0	0	4	0	54
Lamiaceae (Labiatae)	Salvia thyrsiflora Benth.	1	NA	NA	NA	0	0	5	0	57
Lamiaceae (Labiatae)	Salvia thyrsiflora Benth.	1	NA	NA	NA	0	0	5	0	57
Lamiaceae (Labiatae)	Salvia tiliifolia Vahl	1	NA	NA	NA	0	0	21	0	56

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Lamiaceae (Labiatae)	Salvia tiliifolia Vahl	1	NA	NA	NA	0	0	21	0	56
Cucurbitaceae	Sechium chinantlense Lira & F. Chiang	2	NA	NA	NA	0	0	1	Mexico	59
Cucurbitaceae	Sechium compositum (Donn. Sm.) C. Jeffrey	2	NA	NA	NA	0	0	1	Mesoamerica	59
Cucurbitaceae	Sechium edule (Jacq.) Sw. subsp. sylvestre Lira & Castrejon	2	NA	NA	NA	0	0	0	Mexico	55
Cucurbitaceae	Sechium hintonii (Paul G. Wilson) C. Jeffrey	2	NA	NA	NA	0	0	4	Mexico	58
Simmondsiaceae	Simmondsia chinensis (Link) C. K. Schneid.	1	NA	NA	NA	0	0	2	0	56
Solanaceae	Solanum bulbocastanum Dunal	3	33.5	0.73	0.08	Disease resistance for Potato, Pest resistance for Potato	0	2	Mesoamerica	63
Solanaceae	Solanum cardiophyllum Lindl.	3	33.5	0.73	0.08	0	0	0	Mexico	55
Solanaceae	Solanum clarum Correll	3	33.5	0.73	0.08	0	0	1	Mesoamerica	63
Solanaceae	Solanum demissum Lindl.	3	33.5	0.73	0.08	Cold tolerance for Potato, Disease resistance for Potato, Pest resistance for Potato	0	1	Mesoamerica	67
Solanaceae	Solanum ehrenbergii (Bitter) Rydb.	3	33.5	0.73	0.08	0	0	1	Mexico	62
Solanaceae	Solanum guerreroense Correll	3	33.5	0.73	0.08	0	0	0	Mexico	56
Solanaceae	Solanum hintonii Correll	3	33.5	0.73	0.08	0	0	0	Mexico	56
Solanaceae	Solanum hjertingii Hawkes	3	33.5	0.73	0.08	Disease resistance for Potato	0	0	Mexico	56
Solanaceae	Solanum hougasii Correll	3	33.5	0.73	0.08	Disease resistance for Potato, Pest resistance for Potato	0	0	Mexico	58
Solanaceae	Solanum iopetalum (Bitter) Hawkes	3	33.5	0.73	0.08	Disease resistance for Potato	0	2	Mexico	62
Solanaceae	Solanum morelliforme Bitter & Munch	3	33.5	0.73	0.08	0	0	2	Mesoamerica	62
Solanaceae	Solanum oxycarpum Schiede	3	33.5	0.73	0.08	0	0	1	Mexico	63
Solanaceae	Solanum pinnatisectum Dunal	3	33.5	0.73	0.08	Disease resistance for Potato, Drought resistance for Potato	0	0	Mexico	57

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Solanaceae	Solanum polyadenium Greenm.	3	33.5	0.73	0.08	Disease resistance for Potato	0	1	Mexico	63
Solanaceae	Solanum schenckii Bitter	3	33.5	0.73	0.08	0	0	0	Mexico	56
Solanaceae	Solanum stenophyllidium Bitter	3	33.5	0.73	0.08	Cold tolerance for Potato	0	0	Mexico	55
Solanaceae	Solanum stoloniferum Schltdl.	3	33.5	0.73	0.08	Disease resistance for Potato, Drought resistance for Potato	0	1	Mexico and USA	65
Solanaceae	Solanum tarnii Hawkes & Hjert.	3	33.5	0.73	0.08	0	0	0	Mexico	55
Solanaceae	Solanum trifidum Correll	3	33.5	0.73	0.08	0	0	0	Mexico	55
Solanaceae	Solanum verrucosum Schltdl.	3	33.5	0.73	0.08	Disease resistance for Potato	0	1	Mexico	63
Anacardiaceae	Spondias mombin L.	1	NA	NA	NA	0	0	8	0	62
Anacardiaceae	Spondias purpurea L.	1	NA	NA	NA	0	0	9	0	61
Cactaceae	Stenocereus alamosensis (J.M. Coult.) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	VU/II/	2	Mexico	67
Cactaceae	Stenocereus alamosensis (J.M. Coult.) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	VU/II/	2	Mexico	67
Cactaceae	Stenocereus beneckei (Ehrenb.) A. Berger & Buxb.	1	NA	NA	NA	0	NT/II/	4	0	61
Cactaceae	Stenocereus beneckei (Ehrenb.) A. Berger & Buxb.	1	NA	NA	NA	0	NT/II/	4	0	61
Cactaceae	Stenocereus chrysocarpus Sánchez-Mej.	1	NA	NA	NA	0	EN/II/	2	0	61
Cactaceae	Stenocereus chrysocarpus Sánchez-Mej.	1	NA	NA	NA	0	EN/II/	2	0	61
Cactaceae	Stenocereus eichlamii (Britton & Rose) Buxb. ex Bravo	1	NA	NA	NA	0	DD/II/	2	0	52
Cactaceae	Stenocereus eichlamii (Britton & Rose) Buxb. ex Bravo	1	NA	NA	NA	0	DD/II/	2	0	52
Cactaceae	Stenocereus eruca (Brandegee) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/A	2	Mexico	66
Cactaceae	Stenocereus eruca (Brandegee) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/A	2	Mexico	66
Cactaceae	Stenocereus fricii Sánchez-Mej.	1	NA	NA	NA	0	LC/II/	5	Mexico	65
Cactaceae	Stenocereus fricii Sánchez-Mej.	1	NA	NA	NA	0	LC/II/	5	Mexico	65
Cactaceae	Stenocereus griseus (Haw.) Buxb.	1	NA	NA	NA	0	LC/II/	1	0	53

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cactaceae	Stenocereus griseus (Haw.) Buxb.	1	NA	NA	NA	0	LC/II/	1	0	53
Cactaceae	Stenocereus gummosus (Engelm.) A. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/	3	Mexico	66
Cactaceae	Stenocereus gummosus (Engelm.) A. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/	3	Mexico	66
Cactaceae	Stenocereus kerberi (K. Schum.) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/	4	0	59
Cactaceae	Stenocereus kerberi (K. Schum.) A.C. Gibson & K.E. Horak	1	NA	NA	NA	0	LC/II/	4	0	59
Cactaceae	Stenocereus martinezii (J.G. Ortega) Buxb.	1	NA	NA	NA	0	EN/II/Pr	1	Mexico	67
Cactaceae	Stenocereus martinezii (J.G. Ortega) Buxb.	1	NA	NA	NA	0	EN/II/Pr	1	Mexico	67
Cactaceae	Stenocereus montanus (Britton & Rose) Buxb.	1	NA	NA	NA	0	LC/II/	2	0	60
Cactaceae	Stenocereus montanus (Britton & Rose) Buxb.	1	NA	NA	NA	0	LC/II/	2	0	60
Cactaceae	Stenocereus pruinosus (Otto ex Pfeiff.) Buxb.	1	NA	NA	NA	0	LC/II/	8	0	51
Cactaceae	Stenocereus pruinosus (Otto ex Pfeiff.) Buxb.	1	NA	NA	NA	0	LC/II/	8	0	51
Cactaceae	Stenocereus queretaroensis (F.A.C. Weber) Buxb.	1	NA	NA	NA	0	LC/II/	8	Mexico	65
Cactaceae	Stenocereus queretaroensis (F.A.C. Weber) Buxb.	1	NA	NA	NA	0	LC/II/	8	Mexico	65
Cactaceae	Stenocereus quevedonis (J.G. Ortega) Buxb.	1	NA	NA	NA	0	LC/II/	2	0	61
Cactaceae	Stenocereus quevedonis (J.G. Ortega) Buxb.	1	NA	NA	NA	0	LC/II/	2	0	61
Cactaceae	Stenocereus standleyi (J.G. Ortega) Buxb.	1	NA	NA	NA	0	LC/II/	6	Mexico	65
Cactaceae	Stenocereus standleyi (J.G. Ortega) Buxb.	1	NA	NA	NA	0	LC/II/	6	Mexico	65
Cactaceae	Stenocereus stellatus (Pfeiff.) Riccob.	1	NA	NA	NA	0	LC/II/	4	Mexico	67
Cactaceae	Stenocereus stellatus (Pfeiff.) Riccob.	1	NA	NA	NA	0	LC/II/	4	Mexico	67

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Cactaceae	Stenocereus thurberi (Engelm.) Buxb.	1	NA	NA	NA	0	LC/II/	5	Mexico and USA	60
Cactaceae	Stenocereus thurberi (Engelm.) Buxb.	1	NA	NA	NA	0	LC/II/	5	Mexico and USA	60
Cactaceae	Stenocereus thurberi subsp. littoralis (K. Brandegee) N. P. Taylor	1	NA	NA	NA	0	/II/	0	Mexico	50
Cactaceae	Stenocereus thurberi subsp. littoralis (K. Brandegee) N. P. Taylor	1	NA	NA	NA	0	/II/	0	Mexico	50
Cactaceae	Stenocereus thurberi (Engelm.) Buxb. subsp. thurberi	1	NA	NA	NA	0	/II/	0	Mexico and USA	50
Cactaceae	Stenocereus thurberi (Engelm.) Buxb. subsp. thurberi	1	NA	NA	NA	0	/II/	0	Mexico and USA	50
Cactaceae	Stenocereus treleasei (Britton & Rose) Backeb.	1	NA	NA	NA	0	LC/II/	1	Mexico	69
Cactaceae	Stenocereus treleasei (Britton & Rose) Backeb.	1	NA	NA	NA	0	LC/II/	1	Mexico	69
Asteraceae (Compositae)	Tagetes erecta L.	2	NA	NA	NA	0	0	25	0	54
Asteraceae (Compositae)	Tagetes filifolia Lag.	2	NA	NA	NA	0	0	21	0	51
Asteraceae (Compositae)	Tagetes foetidissima DC.	2	NA	NA	NA	0	0	12	Mesoamerica	52
Asteraceae (Compositae)	Tagetes hartwegii Greenm.	2	NA	NA	NA	0	0	1	Mexico	55
Asteraceae (Compositae)	Tagetes lucida Cav.	2	NA	NA	NA	0	0	25	Mesoamerica	52
Asteraceae (Compositae)	Tagetes micrantha Cav.	2	NA	NA	NA	0	0	22	Mexico and USA	49
Asteraceae (Compositae)	Tagetes pringlei S. Watson	2	NA	NA	NA	0	0	5	Mexico	53
Asteraceae (Compositae)	Tagetes stenophylla B.L. Rob.	2	NA	NA	NA	0	0	5	Mexico	53
Asteraceae (Compositae)	Tagetes subulata Cerv.	2	NA	NA	NA	0	0	8	0	53

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Malvaceae	Theobroma cacao L.	9	2.4	0.14	0.2	0	0	9	0	72
Poaceae (Gramineae)	Tripsacum andersonii J. R. Gray	9	1008.2	25.74	12.13	0	0	3	0	81
Poaceae (Gramineae)	Tripsacum bravum J. R. Gray	9	1008.2	25.74	12.13	0	0	2	Mexico	88
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. dactyloides	9	1008.2	25.74	12.13	Pest resistance for Maize	0	16	0	85
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. hispidum (Hitchc.) de Wet & J. R. Harlan	9	1008.2	25.74	12.13	0	0	12	Mesoamerica	86
Poaceae (Gramineae)	Tripsacum dactyloides (L.) L. var. mexicanum de Wet & J. R. Harlan	9	1008.2	25.74	12.13	0	0	2	Mesoamerica	88
Poaceae (Gramineae)	Tripsacum intermedium de Wet & J. R. Harlan	9	1008.2	25.74	12.13	0	0	1	Mesoamerica	89
Poaceae (Gramineae)	Tripsacum jalapense de Wet & Brink	9	1008.2	25.74	12.13	0	0	4	Mesoamerica	88
Poaceae (Gramineae)	Tripsacum lanceolatum Rupr. ex E. Fourn.	9	1008.2	25.74	12.13	0	0	13	Mexico and USA	85
Poaceae (Gramineae)	Tripsacum latifolium Hitchc.	9	1008.2	25.74	12.13	0	0	6	Mesoamerica	87
Poaceae (Gramineae)	Tripsacum laxum Nash	9	1008.2	25.74	12.13	0	0	8	0	87
Poaceae (Gramineae)	Tripsacum maizar Hern.-Xol. & Randolph	9	1008.2	25.74	12.13	0	//A	7	Mesoamerica	92

Supplementary Table 2.1. Taxa included in the crop wild relative inventory for Mexico, additional information and final score (continued)

Family	Scientific name	Uses	Energy (Kcal/capita/day)	Protein (g/capita/day)	Fat (g/capita/day)	Confirmed or Potential use	Threat status (IUCN/CITES/NOM-059)‡	Distribution§	Level of endemism	Score
Poaceae (Gramineae)	Tripsacum manisuroides de Wet & J. R. Harlan	9	1008.2	25.74	12.13	0	0	1	Mexico	89
Poaceae (Gramineae)	Tripsacum pilosum Scribn. & Merr.	9	1008.2	25.74	12.13	0	0	10	Mesoamerica	86
Poaceae (Gramineae)	Tripsacum pilosum Scribn. & Merr. var. guatemalense de Wet & Brink	9	1008.2	25.74	12.13	0	0	0	Mesoamerica	86
Poaceae (Gramineae)	Tripsacum zopilotense Hern.-Xol. & Randolph	9	1008.2	25.74	12.13	0	//Pr	1	Mexico	96
Orchidaceae	Vanilla planifolia Andrews	3	NA	NA	NA	0	/II/Pr	8	Mexico	72
Orchidaceae	Vanilla pompona Schiede	3	NA	NA	NA	0	/II/	6	0	58
Poaceae (Gramineae)	Zea diploperennis Iltis, Doebley & R. Guzman	9	1008.2	25.74	12.13	Disease resistance for Maize, Pest resistance for Maize	//A	1	Mexico	108
Poaceae (Gramineae)	Zea luxurians (Durieu & Asch.) R. M. Bird	9	1008.2	25.74	12.13	0	0	1	Mesoamerica	93
Poaceae (Gramineae)	Zea mays L. subsp. mexicana (Schrad.) H. H. Iltis	9	1008.2	25.74	12.13	0	0	12	Mexico	90
Poaceae (Gramineae)	Zea mays L. subsp. parviglumis H. H. Iltis & Doebley	9	1008.2	25.74	12.13	0	0	4	Mexico	92
Poaceae (Gramineae)	Zea mays L. subsp. parviglumis H. H. Iltis & Doebley	9	1008.2	25.74	12.13	0	0	4	Mexico	92
Poaceae (Gramineae)	Zea perennis (Hitchc.) Reeves & Mangelsd.	9	1008.2	25.74	12.13	0	//P	2	Mexico	106

† GP1: Primary Gene Pool; GP2: Secondary Gene Pool; GP3: Tertiary Gene Pool; TG1b: Taxon Group 1b; TG2: Taxon Group 2; TG3: Taxon Group 3; TG4: Taxon Group 4

‡ From the NOM-059-SEMARNAT-2010, Pr: Subject to special protection; P: Endangered; A: Threatened. From IUCN Red List of Threatened Species, NT: Near Threatened; V: Vulnerable; EN: Endangered

§ Number of states in which the taxon occurs

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Supplementary Table 3.1. Institutes and sources of the occurrences of the priority Mexican CWR taxa used for the gap analyses

COLLCODE	COLLNAME	INSTCODE	INSTNAME	INSTADDRESS
A	Harvard University Herbarium	HU	Harvard University	U.S.A. Massachusetts. Cambridge.
AC	Amherst College Herbarium	AC	Amherst College	U.S.A. Massachusetts. Amherst.
AMO	Herbario de la Asociación Mexicana de Orquideología	AMO	Asociación Mexicana de Orquideología, A. C.	Mexico. Mexico City.
ANSM	Herbario de la Universidad Autónoma Agraria Antonio Narro	UAAAN	Universidad Autónoma Agraria Antonio Narro	Mexico. Coahuila. Saltillo.
ARIZ	University of Arizona Herbarium	UA	University of Arizona	U.S.A. Arizona. Tucson.
ASDM	Arizona-Sonora Desert Museum Herbarium	ASDM	Arizona-Sonora Desert Museum	U.S.A. Arizona. Tucson.
ASU	Arizona State University Herbarium	ASU	Arizona State University	U.S.A. Arizona. Tempe.
B	Herbarium Berolinense	B	Botanischer Garten und Botanisches Museum Berlin-Dahlem, Zentraleinrichtung der Freien Universität Berlin	Germany. Berlin.
BANGEV	Banco Nacional de Germoplasma Vegetal	UACh	Universidad Autónoma Chapingo	Mexico. Estado de México. Chapingo.
BCMEX	Herbario de la Universidad de Baja California	UABC	Facultad de Ciencias, Universidad Autónoma de Baja California	Mexico. Baja California. Ensenada.
BH	L. H. Bailey Hortorium	CU	Bailey Hortorium, Cornell University	U.S.A. New York. Ithaca.
BM	The Natural History Museum Herbarium	NHM	The Natural History Museum	U.K. England. London.
CAS	California Academy of Sciences Herbarium	CAS	California Academy of Sciences	U.S.A. California. San Francisco.
CE-UNAM	Herbario (colección de referencia)	IE-UNAM	Instituto de Ecología, Universidad Nacional Autónoma de México	Mexico. Mexico City.
CFEO	Colecciones Florística y Etnobotánicas de Oaxaca	JEO	Jardín Histórico Etnobotánico del Centro Cultural Santo Domingo	Mexico. Oaxaca.
CFNL	Herbario de la Universidad Autónoma de Nuevo León	FCF-UANL	Facultad de Ciencias Forestales, Universidad Autónoma de Nuevo León	Mexico. Nuevo León. Linares.
CHAP	Herbario de la División de Ciencias Forestales	UACh	Universidad Autónoma Chapingo	Mexico. México. Chapingo.
CHAPA	Herbario-Hortorio	CP	Colegio de Postgraduados	Mexico. México. Chapingo.
CHIH	Herbario de la Universidad Autónoma de Chihuahua	UACH	Universidad Autónoma de Chihuahua	Mexico. Chihuahua.
CHIP	Herbario Instituto de Historia Natural	IHNE	Departamento de Botánica, Instituto de Historia Natural	Mexico. Chiapas. Tuxtla Gutiérrez.
CIAT	Centro Internacional de Agricultura Tropical	CIAT	Centro Internacional de Agricultura Tropical	Colombia. Cali.
CIB	Herbario del Centro de Investigaciones Biológicas	UV	Universidad Veracruzana	Mexico. Veracruz. Xalapa.
CICY	Herbario del Centro de Investigación Científica de Yucatán	CICY	Centro de Investigación Científica de Yucatán, A. C.	Mexico. Yucatán. Mérida.
CIFAP	Centro de Investigaciones Forestales y Agropecuarias	INIFAP	Centro de Investigaciones Forestales y Agropecuarias, Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	Mexico.
CIFTROH	Xiloteca del Centro de Investigaciones Forestales del Trópico Húmedo	INIFAP	Centro de Investigaciones Forestales del Trópico Húmedo, Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	Mexico.
CIIDIR	Herbario del CIIDIR Durango	CIIDIR-IPN-DURANGO	Centro Interdisciplinario De Investigación para el Desarrollo Integral Regional, Instituto Politécnico Nacional, Durango	Mexico. Durango.
CIMI	Herbario del CIIDIR Michoacán	CIIDIR-IPN-MICHOACÁN	Centro Interdisciplinario De Investigación para el Desarrollo Integral Regional, Instituto Politécnico Nacional, Michoacán	Mexico. Michoacán. Jiquilpan.
CNRG	Centro Nacional de Recursos Genéticos	INIFAP	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	Mexico. Jalisco.
COA	Herbario del Jardín Botánico de Córdoba	UCO	Jardín Botánico de Córdoba, Universidad de Córdoba	Spain. Córdoba.
COCA	Herbario de la Comisión Técnico Consultiva de Coeficientes de Agostadero	COTECOCA-SAGARPA	Comisión Técnico Consultiva de Coeficientes de Agostadero, Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación	Mexico.
CODAGEM	Herbario Eizi Matuda	FCA-UAEM	Facultad de Ciencias Agrícolas, Universidad Autónoma del Estado de México	México. Estado de México.

Supplementary Table 3.1. Institutes and sources of the occurrences of the priority Mexican CWR taxa used for the gap analyses (continued)

COLLCODE	COLLNAME	INSTCODE	INSTNAME	INSTADDRESS
CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad	CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad	Mexico. Ciudad de México.
CORD	Herbario del Museo Botánico de Córdoba	IMBIV	Instituto Multidisciplinario de Biología Vegetal	Argentina. Córdoba. Córdoba.
CPNWH	Consortium of Pacific Northwest Herbaria	UW	University of Washington	U.S.A. Washington. Seatle.
CSAT	Herbario del Colegio de Postgraduados	CP-CT	Colegio de Postgraduados, Campus Tabasco	Mexico. Tabasco. Cárdenas.
CZA	Diario de campo de Carlos Zavala Álvarez	INIFAP-UPN	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias, Campo Experimental Uruapan	
DAV	University of California Davis Herbarium	UC	University of California Davis	U.S.A. California. Davis.
DMCyP	Departamento de Madera Celulosa y Papel	CUCEI-UDG	Centro Universitario de Ciencias Exactas e Ingenierías, Universidad de Guadalajara	Mexico. Jalisco. Tlaquepaque.
E	Royal Botanic Garden Edinburgh Herbarium	RBGE	Royal Botanic Garden Edinburgh	U.K. Scotland. Edinburgh.
EACS	Herbario González Ortega	UAS	Universidad Autónoma de Sinaloa	Mexico. Sinaloa.
EBUM	Herbario de la Universidad Michoacana de San Nicolás de Hidalgo	FB-UMSNH	Facultad de Biología, Universidad Michoacana de San Nicolás de Hidalgo	Mexico. Michoacán. Morelia.
ECO-CH	Herbario del Colegio de la Frontera Sur	ECOSUR-CH	Colegio de la Frontera Sur Chetumal	Mexico. Quintana Roo. Chetumal.
ECO-SC	Herbario del Colegio de la Frontera Sur	ECOSUR-SC	Colegio de la Frontera Sur San Cristóbal	Mexico. Chiapas. San Cristóbal de las Casas.
ENCB	Herbario Jerzy Rzedowski y Graciela Calderón	ENCB-IPN	Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional	Mexico. Mexico City.
F	John G. Searle Herbarium	FMNH	Field Museum of Natural History	U.S.A. Illinois. Chicago.
FCME	Herbario María Agustina Batalla de la Facultad de Ciencias	FC-UNAM	Facultad de Ciencias, U.N.A.M.	Mexico. Mexico City.
FITECMA	Xiloteca Universidad Michoacana de San Nicolás de Hidalgo	UMSNH	Facultad de Ingeniería en Tecnología de la Madera, Universidad Michoacana de San Nicolás de Hidalgo	Mexico.
FZUACH	Herbario de la Facultad de Zootecnia y Ecología, Universidad Autónoma de Chihuahua	FZ-UACH	Facultad de Zootecnia y Ecología, Universidad Autónoma de Chihuahua	Mexico. Chihuahua.
GBH	Herbarium of Geo. B. Hinton	GBH	Herbarium of Geo. B. Hinton	Mexico. Nuevo Leon. Galeana.
GH	Gray Herbarium	HU	Harvard University	U.S.A.
GUADA	Herbario Carlos L. Díaz Luna	UAG	Universidad Autónoma de Guadalajara	Mexico. Jalisco. Zapopan.
GUAw	Xiloteca de la Universidad de Guadalajara	IB-CUCBA-UDG	Instituto de Botánica, Centro Universitario de Ciencias Biólogicas y Agropecuarias, Universidad de Guadalajara	Mexico. Jalisco. Zapopan.
HCIB	Herbario del Centro de Investigaciones Biológicas del Noroeste	CIB	Centro de Investigaciones Biológicas del Noroeste, S. C.	Mexico. B.C.S. La Paz.
HEM	Herbario de la Universidad de Ciencias y Artes de Chiapas	UNICACH	Universidad de Ciencias y Artes de Chiapas	Mexico. Chiapas. Tuxtla Gutiérrez.
HMBC	Herbario de México	HBC	Herbario del Jardín Botánico-Histórico La Concepción	Spain. Málaga.
HO				
HUAA	Herbario de la Universidad Autónoma de Aquascalientes	UAA	Universidad Autónoma de Aquascalientes	Mexico. Aguascalientes.
HUAP	Jardín Botánico Universitario	BUAP	Escuela de Biología, Benemérita Universidad Autónoma de Puebla	Mexico. Puebla. Puebla.
HUAZ	Herbario Herbario Uniamazonia	UAZ	Universidad de la Amazonia	Colombia. Caquetá. Florencia.
HUEFS	Universidade Estadual de Feira de Santana Herbarium	UEFS	Departamento de Ciências Biológicas, Universidade Estadual de Feira de Santana	Brazil. Bahia. Feira de Santana.
HUMO	Herbario del Centro de Investigación en Biodiversidad y Conservación	UAEM	Universidad Autónoma del Estado de Morelos	Mexico. Morelos. Cuernavaca.

Supplementary Table 3.1. Institutes and sources of the occurrences of the priority Mexican CWR taxa used for the gap analyses (continued)

COLLCODE	COLLNAME	INSTCODE	INSTNAME	INSTADDRESS
IBUG	Herbario del Instituto de Botánica de la Universidad de Guadalajara	IB-CUCBA-UDG	Instituto de Botánica, Centro Universitario de Ciencias Biólogicas y Agropecuarias, Universidad de Guadalajara	Mexico. Jalisco. Zapopan.
IEB	Herbario del Centro Regional del Bajío	INECOL	Instituto de Ecología, A. C.	Mexico. Michoacán. Pátzcuaro.
IGLUNAM-MODERN	Colección Palinológica de polen reciente	IGL-UNAM	Museo de Geología, Instituto de Geología, U.N.A.M.	Mexico. Mexico City.
iNaturalist	Observations	CAS	California Academy of Sciences	U.S.A. California. San Francisco.
INECOL-CRD	Herbario del Instituto de Ecología, A. C., Centro Regional Durango	INECOL-CRD	Instituto de Ecología, A. C., Centro Regional Durango	Mexico. Mexico City.
INIF	Herbario Nacional Forestal Biol. Luciano Vela Gálvez	INIFAP	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	Mexico. Distrito Federal. Mexico City.
INIFAP-CG	Colección de Germoplasma del Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	INIFAP	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias	Mexico. Distrito Federal. Mexico City.
IZTA	Herbario Iztacala	FESI-UNAM	Facultad de Estudios Superiores Iztacala, Universidad Nacional Autónoma de México	Mexico. Mexico City.
JEPS	Jepson Herbarium	UC	University of California	U.S.A. California. Berkeley.
K	Royal Botanic Gardens Herbarium	RBG	Royal Botanic Gardens, Kew	U.K. England. Kew.
LD	Lund University Herbarium	LU	Lund University	Sweden. Lund.
LEA	University of Lethbridge	UL	University of Lethbridge	Canada. Alberta. Lethbridge.
LL	Lundell Herbarium	CNS-UT	College of Natural Sciences, University of Texas at Austin	U.S.A. Texas. Austin.
MA	Herbario del Real Jardín Botánico	MA	Real Jardín Botánico	Spain. Madrid.
MADUG	Herbario del Museo de Historia Natural Alfredo Dugès	UG	Universidad de Guanajuato	Mexico. Guanajuato. Guanajuato.
MEXFw	Xiloteca Nacional	INIFAP-CECOY	Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias, Campo Experimental Coyoacán	Mexico. Distrito Federal. Mexico City.
MEXU	Herbario Nacional de México	IBUNAM	Instituto de Biología, Universidad Nacional Autónoma de México	Mexico. Mexico City.
MICH	University of Michigan Herbarium	UM	University of Michigan	U.S.A. Michigan. Ann Arbor.
MO	Missouri Botanical Garden Herbarium	MOBOT	Missouri Botanical Garden	U.S.A. Missouri. Saint Louis.
NHN	National Herbarium of the Netherlands	Naturalis	Naturalis Biodiversity Center	The Netherlands. Leiden.
NMC	New Mexico State University Herbarium	NMSU	New Mexico State University	U.S.A. New Mexico. Las Cruces.
NY	New York Botanical Garden Herbarium	NYBG	New York Botanical Garden	U.S.A. New York. Bronx.
NYBG	New York Botanical Garden	NYBG	New York Botanical Garden	U.S.A. New York. Bronx.
P	Muséum National d'Histoire Naturelle Herbarium	MNHN	Muséum National d'Histoire Naturelle	France. Paris.
QMEX	Herbario de Querétaro "Dr. Jerzy Rzedowski"	FCN-UAQ	Facultad de Ciencias Naturales, Universidad Autónoma de Querétaro, Centro Universitario	Mexico. Querétaro. Querétaro.
RBG	Royal Botanic Gardens Kew	RBG	Royal Botanic Gardens Kew	U.K. England. Kew.
RSA	Rancho Santa Ana Botanic Garden	RSA	Rancho Santa Ana Botanic Garden	U.S.A. California. Claremont.
SALA	Herbario de la Universidad de Salamanca	US	Departamento de Botánica, Universidad de Salamanca	Spain. Salamanca.
SD	San Diego Natural History Museum	SDNHM	San Diego Natural History Museum	U.S.A. California. San Diego.
SERO	Herbario SERBO	SERBO	Sociedad para el Estudio de los Recursos Bióticos de Oaxaca, A. C.	Mexico. Oaxaca. Oaxaca.
SLPM	Herbario de la Universidad Autónoma de San Luis Potosí	IIZD-UASLP	Instituto de Investigaciones de Zonas Desérticas, Universidad Autónoma de San Luis Potosí	Mexico. San Luis Potosí. San Luis Potosí.
SMU	Southern Methodist University Herbarium	SMU	Southern Methodist University	U.S.A. Texas. Dallas.
TEX	University of Texas at Austin Herbarium	CNS-UT	College of Natural Sciences, University of Texas at Austin	U.S.A. Texas.
TRT	Vascular Plant Herbarium	ROM	Royal Ontario Museum	Canada. Ontario. Toronto.
TUC	Herbarium of the University of Arizona	UA	University of Arizona	U.S.A. Arizona. Tucson.
UADY	Herbario de la Universidad Autónoma de Yucatán	UADY	Universidad Autónoma de Yucatán	Mexico. Yucatán.
UAMIZ	Herbario Metropolitano	UAM-I	Universidad Autónoma Metropolitana, Unidad Iztapalapa	Mexico. Mexico City.

Supplementary Table 3.1. Institutes and sources of the occurrences of the priority Mexican CWR taxa used for the gap analyses (continued)

COLLCODE	COLLNAME	INSTCODE	INSTNAME	INSTADDRESS
UAS	Herbario de la Universidad Autónoma de Sinaloa	FA-UAS	Facultad de Agronomía, Universidad Autónoma de Sinaloa	Mexico. Sinaloa. Culiacán.
UAT	Herbario de la Universidad Autónoma de Tamaulipas	IEA-UAT	Instituto de Ecología y Alimentos, Universidad Autónoma de Tamaulipas	Mexico. Tamaulipas. Ciudad Victoria.
UC	University of California Berkeley Herbarium	UC	University of California	U.S.A. California. Berkeley.
UCAM	Herbario Etnobotánico Centro de Investigaciones Históricas y Sociales	CIHS-UAC	Centro de Investigaciones Históricas y Sociales, Universidad Autónoma de Campeche	Mexico. Campeche.
UCR	University of California Riverside Herbarium	UCR	University of California Riverside	U.S.A. California. Riverside.
UDO	Herbario de la Universidad de Occidente	UDO	Universidad de Occidente	Mexico. Sinaloa.
UJAT	Herbario de la Universidad Juárez Autónoma de Tabasco	DACB-UJAT	División Académica de Ciencias Biológicas, Universidad Juárez Autónoma de Tabasco	Mexico. Tabasco. Cunduacán.
UNL	Herbario de la Universidad Autónoma de Nuevo León	UNL	Universidad Autónoma de Nuevo León	Mexico. Nuevo León.
US	United States National Herbarium	NMNH-SI	National Museum of Natural History, Smithsonian Institution	U.S.A. District of Columbia. Washington.
USA003	Northeast Regional Plant Introduction Station, Plant Genetic Resources Unit, New York State Agricultural Experiment Station, Cornell University	USDA ARS NPGS	USDA ARS NPGS	U.S.A. New York.
USA004	Potato Germplasm Introduction Station	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA016	Plant Genetic Resources Conservation Unit, Southern Regional Plant Introduction Station, University of Georgia	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA020	North Central Regional Plant Introduction Station, NCRPIS	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA022	Western Regional Plant Introduction Station, Washington State University	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA047	Subtropical Horticultural Research Unit, National Germplasm Repository, Miami	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA049	Crop Germplasm Research Unit USDA, ARS	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA955	National Arid Land Plant Genetic Resources Unit, USDA, ARS	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA956	Ornamental Plant Germplasm Center, Ohio State University	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USA971	Desert Legume Program	USDA ARS NPGS	USDA ARS NPGS	U.S.A.
USF	University of South Florida Herbarium	USF	University of South Florida	U.S.A. Florida. Tampa.
USON	Herbario de la Universidad de Sonora	DICTUS	Departamento de Investigaciones Científicas y Tecnológicas, Universidad de Sonora	Mexico. Sonora. Hermosillo.
XAL	Herbario del Instituto de Ecología	INECOL	Instituto de Ecología, A. C., Xalapa	Mexico. Veracruz. Xalapa.
XALw	Xiloteca del Instituto de Investigaciones sobre Recursos Bióticos	INIREB	Instituto de Investigaciones sobre Recursos Bióticos	Mexico.
XOLO	Herbario Efraín Hernández Xolocotzín	UACh	Universidad Autónoma Chapingo	Mexico. Estado de México. Chapingo.
ZEA	Herbario del Instituto Manantlán de Ecología y Conservación de la Biodiversidad	IMECBIO-UDG	Instituto Manantlán de Ecología y Conservación de la Biodiversidad, Universidad de Guadalajara	Mexico. Jalisco.

Supplementary Table 3.2. Ecogeographic variables used for the gap analysis of priority Mexican CWR taxa

No.	Component	Variable Code	Variable description	Unit
1	Bioclimatic	bio_1	Annual Mean Temperature	°C
2	Bioclimatic	bio_2	Mean Diurnal Temperature Range (max temp-min temp)	°C
3	Bioclimatic	bio_3	Isothermality ((bio_2/bio_7)*100)	
4	Bioclimatic	bio_4	Temperature Seasonality (SD*100)	
5	Bioclimatic	bio_5	Maximum Temperature of Warmest Month	°C
6	Bioclimatic	bio_6	Minimum Temperature of Coldest Month	°C
7	Bioclimatic	bio_7	Temperature Annual Range (bio_5-bio_6)	°C
8	Bioclimatic	bio_8	Mean Temperature of Wettest Quarter	°C
9	Bioclimatic	bio_9	Mean Temperature of Driest Quarter	°C
10	Bioclimatic	bio_10	Mean Temperature of Warmest Quarter	°C
11	Bioclimatic	bio_11	Mean Temperature of Coldest Quarter	°C
12	Bioclimatic	bio_12	Annual Precipitation	mm
13	Bioclimatic	bio_13	Precipitation of Wettest Month	mm
14	Bioclimatic	bio_14	Precipitation of Driest Month	mm
15	Bioclimatic	bio_15	Precipitation Seasonality (Coefficient of Variation)	mm
16	Bioclimatic	bio_16	Precipitation of Wettest Quarter	mm
17	Bioclimatic	bio_17	Precipitation of Driest Quarter	mm
18	Bioclimatic	bio_18	Precipitation of Warmest Quarter	mm
19	Bioclimatic	bio_19	Precipitation of Coldest Quarter	mm
20	Bioclimatic	tmean_1	Average temperature for January	°C
21	Bioclimatic	tmean_2	Average temperature for February	°C
22	Bioclimatic	tmean_3	Average temperature for March	°C
23	Bioclimatic	tmean_4	Average temperature for April	°C
24	Bioclimatic	tmean_5	Average temperature for May	°C
25	Bioclimatic	tmean_6	Average temperature for June	°C
26	Bioclimatic	tmean_7	Average temperature for July	°C
27	Bioclimatic	tmean_8	Average temperature for August	°C
28	Bioclimatic	tmean_9	Average temperature for September	°C
29	Bioclimatic	tmean_10	Average temperature for October	°C
30	Bioclimatic	tmean_11	Average temperature for November	°C
31	Bioclimatic	tmean_12	Average temperature for December	°C
32	Bioclimatic	tmin_1	Minimum temperature for January	°C
33	Bioclimatic	tmin_2	Minimum temperature for February	°C
34	Bioclimatic	tmin_3	Minimum temperature for March	°C
35	Bioclimatic	tmin_4	Minimum temperature for April	°C
36	Bioclimatic	tmin_5	Minimum temperature for May	°C
37	Bioclimatic	tmin_6	Minimum temperature for June	°C
38	Bioclimatic	tmin_7	Minimum temperature for July	°C
39	Bioclimatic	tmin_8	Minimum temperature for August	°C
40	Bioclimatic	tmin_9	Minimum temperature for September	°C
41	Bioclimatic	tmin_10	Minimum temperature for October	°C
42	Bioclimatic	tmin_11	Minimum temperature for November	°C
43	Bioclimatic	tmin_12	Minimum temperature for December	°C
44	Bioclimatic	tmax_1	Maximum temperature for January	°C
45	Bioclimatic	tmax_2	Maximum temperature for February	°C
46	Bioclimatic	tmax_3	Maximum temperature for March	°C
47	Bioclimatic	tmax_4	Maximum temperature for April	°C
48	Bioclimatic	tmax_5	Maximum temperature for May	°C

Supplementary Table 3.2. Ecogeographic variables used for the gap analysis of priority Mexican CWR taxa (continued)

No.	Component	Variable Code	Variable description	Unit
49	Bioclimatic	tmax_6	Maximum temperature for June	°C
50	Bioclimatic	tmax_7	Maximum temperature for July	°C
51	Bioclimatic	tmax_8	Maximum temperature for August	°C
52	Bioclimatic	tmax_9	Maximum temperature for September	°C
53	Bioclimatic	tmax_10	Maximum temperature for October	°C
54	Bioclimatic	tmax_11	Maximum temperature for November	°C
55	Bioclimatic	tmax_12	Maximum temperature for December	°C
56	Bioclimatic	prec_1	Average rainfall for January	mm
57	Bioclimatic	prec_2	Average rainfall for February	mm
58	Bioclimatic	prec_3	Average rainfall for March	mm
59	Bioclimatic	prec_4	Average rainfall for April	mm
60	Bioclimatic	prec_5	Average rainfall for May	mm
61	Bioclimatic	prec_6	Average rainfall for June	mm
62	Bioclimatic	prec_7	Average rainfall for July	mm
63	Bioclimatic	prec_8	Average rainfall for August	mm
64	Bioclimatic	prec_9	Average rainfall for September	mm
65	Bioclimatic	prec_10	Average rainfall for October	mm
66	Bioclimatic	prec_11	Average rainfall for November	mm
67	Bioclimatic	prec_12	Average rainfall for December	mm
68	Edaphic	ref_depth	Depth reference for soil unit	m
69	Edaphic	t_gravel	Gravel content in surface soil	%
70	Edaphic	t_sand	Sand content in surface soil	%
71	Edaphic	t_silt	Silt content in surface soil	%
72	Edaphic	t_clay	Clay content in surface soil	%
73	Edaphic	t_ref_bulk	Apparent bulk density reference in surface soil	kg/dm3
74	Edaphic	t_oc	Organic carbon content in surface soil	%
75	Edaphic	t_ph_h2o	Surface soil pH in a soil-water solution	-log(H+)
76	Edaphic	t_cec_soil	Cation exchange capacity in surface soil	cmol/kg
77	Edaphic	t_bs	Saturation of bases in surface soil	%
78	Edaphic	t_teb	Total exchangeable bases in surface soil	cmol/kg
79	Edaphic	t_caco3	Calcium carbonate in surface soil	%
80	Edaphic	t_caso4	Gypsisols in surface soil	%
81	Edaphic	t_esp	Sodicity in surface soil	%
82	Edaphic	t_ece	Salinity in surface soil	dS/m
83	Geophysical	alt	Altitude	m
84	Geophysical	slope	Gradient of the land surface	°

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses

CWR taxon	Herbarium specimens	Genebank accessions	Observations (not specified)	Total occurrences
Agave aktites	13	0	0	13
Agave angustifolia	543	1	2	546
Agave angustifolia var. *deweyana*	6	0	0	6
Agave atrovirens	18	1	2	21
Agave congesta	11	0	0	11
Agave datylio	17	0	0	17
Agave fourcroydes	31	0	7	38
Agave hiemiflora	21	0	0	21
Agave hurteri	11	0	0	11
Agave karwinskii	51	1	0	52
Agave kewensis	14	0	0	14
Agave macroacantha	31	1	0	32
Agave macroculmis	23	0	0	23
Agave mapisaga	12	1	1	14
Agave rhodacantha	51	0	0	51
Agave seemanniana	51	0	0	51
Agave sisalana	14	0	0	14
Agave stringens	1	0	0	1
Agave tequilana	20	1	1	22
Amaranthus australis	31	0	0	31
Amaranthus blitoides	14	0	0	14
Amaranthus caudatus	19	3	0	22
Amaranthus crassipes	9	0	0	9
Amaranthus cruentus	42	23	1	66
Amaranthus dubius	52	3	0	55
Amaranthus fimbriatus	63	1	0	64
Amaranthus greggii	115	0	1	116
Amaranthus hybridus	661	5	1	667
Amaranthus hypochondriacus	40	57	1	98
Amaranthus palmeri	216	1	0	217
Amaranthus polygonoides	36	0	0	36
Amaranthus powellii	93	1	0	94
Amaranthus scariosus	48	0	0	48
Amaranthus spinosus	474	3	0	477
Amaranthus tamaulipensis	4	0	0	4
Amaranthus torreyi	67	0	0	67
Annona cherimola	329	9	2	340
Annona glabra	183	1	0	184
Annona globiflora	371	3	0	374
Annona longiflora	69	0	0	69
Annona longipes	3	0	0	3
Annona macroprophyllata	56	9	0	65
Annona muricata	99	31	1	131
Annona palmeri	4	0	0	4
Annona purpurea	99	9	1	109
Annona reticulata	513	4	2	519
Annona liebmanniana	24	0	0	24
Annona squamosa	279	12	0	291
Bixa orellana	241	27	5	273
Byrsonima crassifolia	446	12	7	465
Capsicum annuum var. *glabriusculum*	254	12	0	266
Capsicum frutescens	305	78	5	388
Carica papaya	274	16	17	307
Carya illinoinensis	101	38	2	141
Carya myristiciformis	26	0	0	26
Carya ovata	101	0	0	101
Carya palmeri	42	0	0	42

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses (continued)

CWR taxon	Herbarium specimens	Genebank accessions	Observations (not specified)	Total occurrences
Crataegus mexicana	245	4	2	251
Crataegus tracyi var. *coahuilensis*	6	0	0	6
Crataegus uniflora	3	0	0	3
Cucurbita argyrosperma	90	135	0	225
Cucurbita argyrosperma subsp. *sororia*	340	122	3	465
Cucurbita cordata	89	5	0	94
Cucurbita digitata	90	0	2	92
Cucurbita foetidissima	187	47	8	242
Cucurbita lundelliana	65	11	1	77
Cucurbita okeechobeensis subsp. *martinezii*	69	44	3	116
Cucurbita palmata	36	0	1	37
Cucurbita pedatifolia	73	12	0	85
Cucurbita pepo subsp. *fraterna*	12	3	0	15
Cucurbita radicans	75	8	0	83
Diospyros conzattii	31	0	0	31
Diospyros johnstoniana	2	0	0	2
Diospyros rosei	2	0	0	2
Gossypium aridum	184	28	0	212
Gossypium barbadense	60	19	1	80
Gossypium gossypioides	37	7	1	45
Gossypium hirsutum	397	533	1	931
Gossypium schwendimanii	6	3	0	9
Gossypium thurberi	27	12	0	39
Helianthus annuus	137	19	0	156
Helianthus californicus	12	0	0	12
Helianthus ciliaris	17	0	0	17
Helianthus gracilentus	7	0	0	7
Helianthus hirsutus	4	0	0	4
Helianthus laciniatus	100	2	0	102
Helianthus niveus	89	0	18	107
Helianthus niveus subsp. *niveus*	6	0	1	7
Helianthus niveus subsp. *tephrodes*	4	1	0	5
Hylocereus ocamponis	49	0	0	49
Ipomoea batatas	166	48	8	222
Ipomoea leucantha	10	3	0	13
Ipomoea tabascana	**0**	1	**0**	1
Ipomoea tiliacea	175	8	1	184
Ipomoea trifida	457	10	0	467
Ipomoea triloba	167	16	1	184
Jacaratia dolichaula	111	0	0	111
Jacaratia mexicana	242	0	10	252
Jarilla caudata	21	0	0	21
Jarilla heterophylla	55	0	0	55
Jatropha andrieuxii	17	0	0	17
Jatropha bartlettii	2	0	0	2
Jatropha mcvaughii	12	0	0	12
Jatropha pseudocurcas	8	0	0	8
Jatropha rufescens	4	0	0	4
Leucaena confertiflora	50	0	0	50
Leucaena diversifolia	409	19	15	443
Leucaena esculenta	432	49	8	489
Leucaena lanceolata	437	45	14	496
Leucaena leucocephala	608	298	29	935
Manihot aesculifolia	168	48	2	218
Manihot angustiloba	90	30	0	120
Manihot auriculata	5	1	0	6
Manihot caudata	96	10	0	106

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses (continued)

CWR taxon	Herbarium specimens	Genebank accessions	Observations (not specified)	Total occurrences
Manihot chlorosticta	180	30	11	221
Manihot crassisepala	29	2	0	31
Manihot davisiae	36	4	0	40
Manihot foetida	13	6	0	19
Manihot michaelis	24	7	0	31
Manihot oaxacana	101	15	0	116
Manihot obovata	3	0	0	3
Manihot pauciflora	49	3	0	52
Manihot pringlei	47	6	0	53
Manihot rhomboidea	50	45	0	95
Manihot rhomboidea subsp. *microcarpa*	71	2	0	73
Manihot rubricaulis	101	16	0	117
Manihot rubricaulis subsp. *isoloba*	29	0	0	29
Manihot rubricaulis subsp. *rubricaulis*	3	0	0	3
Manihot subspicata	23	1	0	24
Manihot tomatophylla	32	7	0	39
Manihot walkerae	10	2	0	12
Manilkara chicle	39	0	0	39
Manilkara zapota	442	11	13	466
Opuntia atropes	53	0	0	53
Opuntia crassa	4	0	0	4
Opuntia deamii	2	0	0	2
Opuntia eichlamii	1	0	0	1
Opuntia ficus-indica	83	38	2	123
Opuntia hyptiacantha	108	28	0	136
Opuntia lasiacantha	135	5	0	140
Opuntia spinulifera	13	12	0	25
Opuntia streptacantha	213	40	1	254
Opuntia undulata	17	0	0	17
Opuntia velutina	67	0	0	67
Opuntia wilcoxii	30	0	0	30
Pachyrhizus erosus	242	0	3	245
Pachyrhizus ferrugineus	25	0	0	25
Persea americana	596	15	23	634
Persea schiedeana	47	6	9	62
Phaseolus acutifolius	204	248	0	452
Phaseolus acutifolius var. *acutifolius*	121	224	1	346
Phaseolus acutifolius var. *tenuifolius*	59	44	0	103
Phaseolus albescens	18	0	0	18
Phaseolus angustissimus	3	0	0	3
Phaseolus carteri	3	8	0	11
Phaseolus coccineus	1421	413	9	1843
Phaseolus coccineus subsp. *coccineus*	18	310	0	328
Phaseolus dumosus	71	77	0	148
Phaseolus filiformis	503	61	0	564
Phaseolus maculatus subsp. *ritensis*	96	31	1	128
Phaseolus parvifolius	50	33	0	83
Phaseolus vulgaris	479	2332	35	2846
Phaseolus vulgaris var. *aborigineus*	0	25	0	25
Physalis acutifolia	94	0	0	94
Physalis ampla	15	0	0	15
Physalis angulata	78	4	0	82
Physalis crassifolia	66	0	1	67
Physalis lagascae	92	0	0	92
Physalis microcarpa	4	0	0	4
Physalis philadelphica	214	155	2	371
Physalis sulphurea	55	0	0	55

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses (continued)

CWR taxon	**Herbarium specimens**	**Genebank accessions**	**Observations (not specified)**	**Total occurrences**
Pinus ayacahuite	46	0	2	48
Pinus cembroides	424	2	7	433
Pinus maximartinezii	14	0	0	14
Pinus monophylla	20	0	0	20
Pinus quadrifolia	19	0	0	19
Pithecellobium dulce	1788	2	45	1835
Porophyllum gracile	173	0	0	173
Porophyllum linaria	105	0	0	105
Porophyllum ruderale	173	37	0	210
Porophyllum scoparium	83	0	0	83
Porophyllum warnockii	3	0	0	3
Portulaca halimoides	10	0	0	10
Portulaca umbraticola	18	0	0	18
Pouteria belizensis	1	0	0	1
Pouteria campechiana	178	6	0	184
Pouteria durlandii	41	0	0	41
Pouteria glomerata	18	0	0	18
Pouteria reticulata	84	0	0	84
Pouteria rhynchocarpa	2	0	0	2
Pouteria sapota	29	15	2	46
Pouteria torta	3	0	0	3
Psidium friedrichsthalianum	3	0	0	3
Psidium guajava	297	20	2	319
Psidium guineense	75	0	0	75
Psidium oligospermum	177	2	1	180
Psidium salutare	5	0	0	5
Salvia axillaris	45	6	0	51
Salvia candicans	19	0	0	19
Salvia carnea	54	7	0	61
Salvia cinnabarina	84	0	0	84
Salvia coccinea	402	0	0	402
Salvia columbariae	37	0	0	37
Salvia elegans	530	34	3	567
Salvia fluviatilis	10	0	0	10
Salvia helianthemifolia	31	5	0	36
Salvia hispanica	125	1	1	127
Salvia laevis	64	64	0	128
Salvia lasiantha	20	0	0	20
Salvia lasiocephala	107	0	0	107
Salvia leucantha	18	0	0	18
Salvia longispicata	28	0	0	28
Salvia longistyla	20	0	0	20
Salvia mexicana	183	1	2	186
Salvia microphylla	541	5	2	548
Salvia misella	113	0	0	113
Salvia mocinoi	105	0	0	105
Salvia oaxacana	19	0	0	19
Salvia occidentalis	211	0	0	211
Salvia patens	45	0	0	45
Salvia polystachia	59	49	0	108
Salvia prunelloides	52	0	1	53
Salvia purpurea	402	0	0	402
Salvia recurva	13	0	0	13
Salvia regla	80	0	0	80
Salvia sanctae-luciae	13	0	0	13
Salvia setulosa	13	0	0	13
Salvia splendens	1	0	0	1

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses (continued)

CWR taxon	Herbarium specimens	Genebank accessions	Observations (not specified)	Total occurrences
Salvia stricta	7	0	0	7
Salvia thyrsiflora	131	0	0	131
Salvia tiliifolia	340	0	0	340
Sechium chinantlense	21	0	1	22
Sechium compositum	29	0	3	32
Sechium edule subsp. *sylvestre*	32	0	0	32
Sechium hintonii	15	0	0	15
Simmondsia chinensis	193	9	10	212
Solanum bulbocastanum	385	55	2	442
Solanum cardiophyllum	221	17	3	241
Solanum clarum	8	3	1	12
Solanum demissum	533	144	6	683
Solanum ehrenbergii	149	30	0	179
Solanum guerreroense	5	4	0	9
Solanum hintonii	18	3	1	22
Solanum hjertingii	67	14	0	81
Solanum hougasii	71	15	0	86
Solanum iopetalum	294	84	1	379
Solanum morelliforme	103	23	1	127
Solanum oxycarpum	55	26	0	81
Solanum pinnatisectum	84	24	0	108
Solanum polyadenium	101	15	0	116
Solanum schenckii	41	16	1	58
Solanum stenophyllidium	133	26	3	162
Solanum stoloniferum	1016	195	0	1211
Solanum tarnii	27	11	0	38
Solanum trifidum	116	12	1	129
Solanum verrucosum	471	52	0	523
Spondias mombin	214	11	2	227
Spondias purpurea	190	13	3	206
Stenocereus alamosensis	46	0	0	46
Stenocereus beneckei	18	0	7	25
Stenocereus chrysocarpus	14	0	3	17
Stenocereus eichlamii	9	0	0	9
Stenocereus eruca	21	0	5	26
Stenocereus fricii	12	0	1	13
Stenocereus griseus	43	1	7	51
Stenocereus gummosus	77	0	7	84
Stenocereus kerberi	11	0	1	12
Stenocereus martinezii	3	0	1	4
Stenocereus montanus	21	0	3	24
Stenocereus pruinosus	104	0	6	110
Stenocereus queretaroensis	62	0	4	66
Stenocereus quevedonis	16	0	0	16
Stenocereus standleyi	18	0	0	18
Stenocereus stellatus	57	1	6	64
Stenocereus thurberi	95	0	1	96
Stenocereus treleasei	18	0	1	19
Tagetes erecta	778	13	10	801
Tagetes filifolia	153	20	0	173
Tagetes foetidissima	102	0	0	102
Tagetes hartwegii	2	0	0	2
Tagetes lucida	457	10	1	468
Tagetes micrantha	255	4	0	259
Tagetes pringlei	63	0	0	63
Tagetes stenophylla	51	0	0	51
Tagetes subulata	246	2	0	248

Supplementary Table 3.3. Occurrence records of priority Mexican CWR taxa used for the analyses (continued)

CWR taxon	Herbarium specimens	Genebank accessions	Observations (not specified)	Total occurrences
Theobroma cacao	73	6	1	80
Tripsacum andersonii	1	0	0	1
Tripsacum bravum	7	10	1	18
Tripsacum dactyloides var. *dactyloides*	1	0	3	4
Tripsacum dactyloides var. *hispidum*	53	57	76	186
Tripsacum dactyloides var. *mexicanum*	7	14	7	28
Tripsacum intermedium	3	9	1	13
Tripsacum jalapense	2	4	2	8
Tripsacum lanceolatum	357	13	7	377
Tripsacum latifolium	5	2	2	9
Tripsacum laxum	13	0	0	13
Tripsacum maizar	8	0	3	11
Tripsacum manisuroides	6	3	0	9
Tripsacum pilosum	44	6	5	55
Tripsacum pilosum var. *guatemalense*	0	1	0	1
Tripsacum zopilotense	13	3	2	18
Vanilla planifolia	24	34	15	73
Vanilla pompona	19	7	0	26
Zea diploperennis	35	17	0	52
Zea luxurians	1	0	0	1
Zea mays subsp. *mexicana*	162	307	10	479
Zea mays subsp. *parviglumis*	195	276	1	472
Zea perennis	25	6	0	31
Total	**35726**	**8115**	**607**	**44448**

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Agave aktites	NA	NA	NA	NA	NA	NA	NA	13	NA	Buffered occurrences used
Agave angustifolia	0.8664	0.0208	7	463291	0.00	0.3156	10	546	yes	NA
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	NA	Buffered occurrences used
Agave atrovirens	0.97	0.0124	3959	98331	4.03	0.2782	5	21	yes	NA
Agave congesta	0.9886	0.0034	2311	36500	6.33	0.3734	5	11	yes	NA
Agave datylio	0.9849	0.0087	329	117567	0.28	0.1321	5	17	yes	NA
Agave fourcroydes	0.9741	0.0186	22	142161	0.02	0.0385	5	38	yes	NA
Agave hiemiflora	0.994	0.0038	389	27833	1.40	0.1554	5	21	yes	NA
Agave hurteri	0.9506	0.0072	2770	141248	1.96	0.442	5	11	yes	NA
Agave karwinskii	0.9742	0.0177	285	115524	0.25	0.2256	10	52	yes	NA
Agave kewensis	NA	NA	NA	NA	NA	NA	NA	14	NA	Buffered occurrences used
Agave macroacantha	0.9773	0.0178	268	43821	0.61	0.1743	5	32	yes	NA
Agave macroculmis	0.9373	0.0209	6094	249036	2.45	0.1793	5	23	yes	NA
Agave mapisaga	0.8023	0.1027	68362	367604	18.60	0.304	5	14	no	Buffered occurrences used
Agave rhodacantha	0.8805	0.0773	1363	424500	0.32	0.1792	10	51	yes	NA
Agave seemanniana	0.9739	0.0117	1	138015	0.00	0.0871	10	51	yes	NA
Agave sisalana	0.8358	0.1142	4536	191921	2.36	0.5109	5	14	yes	NA
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Agave tequilana	0.9595	0.0234	3764	82565	4.56	0.3714	5	22	yes	NA
Amaranthus australis	0.947	0.028	3074	264937	1.16	0.0527	5	31	yes	NA
Amaranthus blitoides	0.7528	0.1162	15707	354641	4.43	0.5233	5	14	yes	NA
Amaranthus caudatus	0.8466	0.1152	2481	259923	0.95	0.1038	5	22	yes	NA
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Amaranthus cruentus	0.8756	0.0789	11	217931	0.01	0.2811	10	66	yes	NA
Amaranthus dubius	0.9296	0.0295	404	292366	0.14	0.173	10	55	yes	NA
Amaranthus fimbriatus	0.9208	0.0411	294	355603	0.08	0.1045	10	64	yes	NA
Amaranthus greggii	0.9794	0.0112	10	71024	0.01	0.1658	10	116	yes	NA
Amaranthus hybridus	0.8651	0.0194	5	442246	0.00	0.3358	10	667	yes	NA
Amaranthus hypochondriacus	0.923	0.0398	1747	201130	0.87	0.1783	10	98	yes	NA
Amaranthus palmeri	0.7774	0.0508	2209	521380	0.42	0.3603	10	217	yes	NA
Amaranthus polygonoides	0.7532	0.0924	37831	384148	9.85	0.3769	5	36	yes	NA
Amaranthus powellii	0.9334	0.0251	461	261958	0.18	0.1576	10	94	yes	NA
Amaranthus scariosus	0.9004	0.044	10305	184117	5.60	0.1814	5	48	yes	NA
Amaranthus spinosus	0.8931	0.017	47	510437	0.01	0.263	10	477	yes	NA
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Amaranthus torreyi	0.8995	0.0496	105	393814	0.03	0.1186	10	67	yes	NA
Annona cherimola	0.9143	0.0193	1	353712	0.00	0.2044	10	340	yes	NA
Annona glabra	0.9582	0.014	554	184884	0.30	0.1868	10	184	yes	NA
Annona globiflora	0.9565	0.011	0	151538	0.00	0.1706	10	374	yes	NA
Annona liebmanniana	0.9699	0.0157	381	160368	0.24	0.1454	5	24	yes	NA
Annona longiflora	0.947	0.0277	5	271733	0.00	0.1057	10	69	yes	NA
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Annona macroprophyllata	0.9375	0.0218	1091	428580	0.25	0.1207	10	65	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Annona muricata	0.9075	0.027	2711	379059	0.72	0.2624	10	131	yes	NA
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Annona purpurea	0.9429	0.0232	17	229440	0.01	0.2239	10	109	yes	NA
Annona reticulata	0.8957	0.0151	33	485583	0.01	0.262	10	519	yes	NA
Annona squamosa	0.9419	0.0148	6	328788	0.00	0.1607	10	291	yes	NA
Bixa orellana	0.9163	0.0149	184	415914	0.04	0.2509	10	273	yes	NA
Byrsonima crassifolia	0.8873	0.0141	34	586610	0.01	0.2385	10	465	yes	NA
Capsicum annuum var. *glabriusculum*	0.804	0.0412	341	504653	0.07	0.3762	10	266	yes	NA
Capsicum frutescens	0.9091	0.0153	286	342709	0.08	0.3519	10	388	yes	NA
Carica papaya	0.8984	0.0201	14	499894	0.00	0.224	10	307	yes	NA
Carya illinoinensis	0.8398	0.0482	5336	464294	1.15	0.2766	10	141	yes	NA
Carya myristiciformis	0.887	0.0677	17434	144469	12.07	0.1906	5	26	no	Buffered occurrences used
Carya ovata	0.9569	0.0217	638	127553	0.50	0.1602	10	101	yes	NA
Carya palmeri	0.9202	0.048	0	155177	0.00	0.2234	5	42	yes	NA
Crataegus mexicana	0.9368	0.0207	147	185134	0.08	0.2226	10	251	yes	NA
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	NA	Buffered occurrences used
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Cucurbita argyrosperma	0.8261	0.0383	404	603113	0.07	0.2777	10	225	yes	NA
Cucurbita argyrosperma subsp. *sororia*	0.8755	0.0207	4	428771	0.00	0.3269	10	465	yes	NA
Cucurbita cordata	0.949	0.0247	205	151550	0.14	0.249	10	94	yes	NA
Cucurbita digitata	0.9244	0.0307	2604	292470	0.89	0.1942	10	92	yes	NA
Cucurbita foetidissima	0.7962	0.0403	1974	530550	0.37	0.3693	10	242	yes	NA
Cucurbita lundelliana	0.9658	0.0108	56	209630	0.03	0.1766	10	77	yes	NA
Cucurbita okeechobeensis subsp. *martinezii*	0.9158	0.0434	250	152792	0.16	0.1571	10	116	yes	NA
Cucurbita palmata	0.9493	0.0209	4455	240566	1.85	0.1075	5	37	yes	NA
Cucurbita pedatifolia	0.9285	0.0272	0	287100	0.00	0.2695	10	85	yes	NA
Cucurbita pepo subsp. *fraterna*	0.9769	0.0143	3205	91406	3.51	0.2014	5	15	yes	NA
Cucurbita radicans	0.9532	0.0131	706	250644	0.28	0.1773	10	83	yes	NA
Diospyros conzattii	0.9304	0.0539	4294	65964	6.51	0.2483	5	31	yes	NA
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Gossypium aridum	0.9317	0.0266	719	158634	0.45	0.2274	10	212	yes	NA
Gossypium barbadense	0.8937	0.0415	2477	395166	0.63	0.2835	10	80	yes	NA
Gossypium gossypioides	0.9567	0.0265	18	234129	0.01	0.0475	5	45	yes	NA
Gossypium hirsutum	0.8501	0.0188	7	550880	0.00	0.2982	10	931	yes	NA
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Gossypium thurberi	0.8858	0.0635	1457	275115	0.53	0.0823	5	39	yes	NA
Helianthus annuus	0.6894	0.0659	9412	496772	1.89	0.4315	10	156	no	Buffered occurrences used
Helianthus californicus	0.9696	0.0137	14002	130061	10.77	0.3544	5	12	no	Buffered occurrences used
Helianthus ciliaris	0.7119	0.0519	80816	280832	28.78	0.4126	5	17	no	Buffered occurrences used
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	NA	Buffered occurrences used
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Helianthus laciniatus	0.8968	0.0395	3504	334813	1.05	0.2609	10	102	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Helianthus niveus	0.9449	0.0295	0	216492	0.00	0.1269	10	107	yes	NA
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	NA	Buffered occurrences used
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	NA	Buffered occurrences used
Hylocereus ocamponis	0.9227	0.0251	9946	203233	4.89	0.3338	5	49	yes	NA
Ipomoea batatas	0.8761	0.0299	19	452282	0.00	0.3045	10	222	yes	NA
Ipomoea leucantha	0.7309	0.156	45124	184065	24.52	0.4227	5	13	no	Buffered occurrences used
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Ipomoea tiliacea	0.8995	0.0341	594	294124	0.20	0.2678	10	184	yes	NA
Ipomoea trifida	0.8761	0.0266	120	421737	0.03	0.2533	10	467	yes	NA
Ipomoea triloba	0.8579	0.037	936	448583	0.21	0.3506	10	184	yes	NA
Jacaratia dolichaula	0.9754	0.0133	0	170837	0.00	0.0431	10	111	yes	NA
Jacaratia mexicana	0.9508	0.015	370	276837	0.13	0.1397	10	252	yes	NA
Jarilla caudata	0.9439	0.0408	13001	121856	10.67	0.2203	5	21	no	Buffered occurrences used
Jarilla heterophylla	0.9461	0.0297	2037	131208	1.55	0.2842	10	55	yes	NA
Jatropha andrieuxii	0.9597	0.0215	5399	64259	8.40	0.4426	5	17	yes	NA
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Jatropha mcvaughii	0.9738	0.009	2200	135160	1.63	0.4001	5	12	yes	NA
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	NA	Buffered occurrences used
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Leucaena confertiflora	0.9727	0.0164	128	119770	0.11	0.1404	10	50	yes	NA
Leucaena diversifolia	0.9358	0.0119	13	232327	0.01	0.2458	10	443	yes	NA
Leucaena esculenta	0.9095	0.0171	56	327085	0.02	0.2645	10	489	yes	NA
Leucaena lanceolata	0.9264	0.0167	0	288435	0.00	0.1769	10	496	yes	NA
Leucaena leucocephala	0.855	0.0168	44	562259	0.01	0.2944	10	935	yes	NA
Manihot aesculifolia	0.8946	0.0286	950	359919	0.26	0.304	10	218	yes	NA
Manihot angustiloba	0.8098	0.0632	3543	342721	1.03	0.3712	10	120	yes	NA
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	NA	Buffered occurrences used
Manihot caudata	0.8483	0.0664	1570	294334	0.53	0.2684	10	106	yes	NA
Manihot chlorosticta	0.9406	0.0234	265	160708	0.16	0.1615	10	221	yes	NA
Manihot crassisepala	0.8248	0.0947	45815	253598	18.07	0.3033	5	31	no	Buffered occurrences used
Manihot davisiae	0.896	0.0617	3925	227015	1.73	0.159	5	40	yes	NA
Manihot foetida	0.8948	0.0634	8269	189320	4.37	0.1223	5	19	yes	NA
Manihot michaelis	0.9531	0.0251	5171	183757	2.81	0.1211	5	31	yes	NA
Manihot oaxacana	0.9762	0.0145	0	79983	0.00	0.0576	10	116	yes	NA
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Manihot pauciflora	0.9611	0.0265	0	150249	0.00	0.0983	10	52	yes	NA
Manihot pringlei	0.9133	0.0462	164	279907	0.06	0.17	10	53	yes	NA
Manihot rhomboidea	0.8767	0.0465	1236	447022	0.28	0.228	10	95	yes	NA
Manihot rhomboidea subsp. *microcarpa*	0.9232	0.0309	899	369872	0.24	0.1481	10	73	yes	NA
Manihot rubricaulis	0.8833	0.0487	1827	199088	0.92	0.3503	10	117	yes	NA
Manihot rubricaulis subsp. *isoloba*	0.8692	0.0616	25469	147482	17.27	0.3907	5	29	no	Buffered occurrences used
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Manihot subspicata	0.9038	0.0746	3577	49752	7.19	0.4911	5	24	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Manihot tomatophylla	0.9072	0.0663	2320	162145	1.43	0.0595	5	39	yes	NA
Manihot walkerae	0.8578	0.0847	55245	159263	34.69	0.3697	5	12	no	Buffered occurrences used
Manilkara chicle	0.9766	0.0107	453	147538	0.31	0.1099	5	39	yes	NA
Manilkara zapota	0.9087	0.0124	31	430743	0.01	0.2448	10	466	yes	NA
Opuntia atropes	0.9491	0.0227	4	306971	0.00	0.0985	10	53	yes	NA
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Opuntia ficus-indica	0.862	0.0589	1744	255956	0.68	0.2863	10	123	yes	NA
Opuntia hyptiacantha	0.9491	0.0217	1006	206317	0.49	0.1198	10	136	yes	NA
Opuntia lasiacantha	0.943	0.0177	1112	239386	0.46	0.2164	10	140	yes	NA
Opuntia spinulifera	0.9384	0.034	4086	124046	3.29	0.0946	5	25	yes	NA
Opuntia streptacantha	0.9336	0.0192	138	231870	0.06	0.1919	10	254	yes	NA
Opuntia undulata	0.9151	0.0308	11951	305834	3.91	0.4023	5	17	yes	NA
Opuntia velutina	0.9183	0.0337	114	331427	0.03	0.2561	10	67	yes	NA
Opuntia wilcoxii	0.9166	0.0441	11925	115460	10.33	0.3482	5	30	no	Buffered occurrences used
Pachyrhizus erosus	0.9055	0.0177	284	400551	0.07	0.2982	10	245	yes	NA
Pachyrhizus ferrugineus	0.9451	0.0244	16760	124842	13.42	0.2123	5	25	no	Buffered occurrences used
Persea americana	0.8832	0.0191	0	469855	0.00	0.267	10	634	yes	NA
Persea schiedeana	0.9744	0.0097	469	181458	0.26	0.0728	10	62	yes	NA
Phaseolus acutifolius	0.789	0.0346	143	513624	0.03	0.4084	10	452	yes	NA
Phaseolus acutifolius var. *acutifolius*	0.8121	0.0392	314	437993	0.07	0.3784	10	346	yes	NA
Phaseolus acutifolius var. *tenuifolius*	0.8457	0.0615	6560	288435	2.27	0.3191	10	103	yes	NA
Phaseolus albescens	0.9614	0.0276	48141	81675	58.94	0.22	5	18	no	Buffered occurrences used
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Phaseolus carteri	0.9062	0.0518	70148	164254	42.71	0.3205	5	11	no	Buffered occurrences used
Phaseolus coccineus	0.8573	0.0112	0	410469	0.00	0.2927	10	1843	yes	NA
Phaseolus coccineus subsp. *coccineus*	0.8986	0.0223	51	359882	0.01	0.2588	10	328	yes	NA
Phaseolus dumosus	0.9379	0.031	14	195610	0.01	0.1168	10	148	yes	NA
Phaseolus filiformis	0.9284	0.0158	0	213872	0.00	0.2505	10	564	yes	NA
Phaseolus maculatus subsp. *ritensis*	0.9153	0.0274	1044	287450	0.36	0.2793	10	128	yes	NA
Phaseolus parvifolius	0.8594	0.0631	0	310532	0.00	0.373	10	83	yes	NA
Phaseolus vulgaris	0.7798	0.0122	0	580369	0.00	0.3927	10	2846	yes	NA
Phaseolus vulgaris var. *aborigineus*	0.846	0.0727	55875	328699	17.00	0.1837	5	25	no	Buffered occurrences used
Physalis acutifolia	0.8769	0.0509	699	316346	0.22	0.2869	10	94	yes	NA
Physalis ampla	0.7286	0.134	6186	378867	1.63	0.5385	5	15	yes	NA
Physalis angulata	0.819	0.0709	2526	440177	0.57	0.3683	10	82	yes	NA
Physalis crassifolia	0.8924	0.0358	288	493886	0.06	0.1775	10	67	yes	NA
Physalis lagascae	0.9128	0.0415	83	254147	0.03	0.1749	10	92	yes	NA
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Physalis philadelphica	0.8538	0.0297	743	404985	0.18	0.3308	10	371	yes	NA
Physalis sulphurea	0.9628	0.0232	1	130091	0.00	0.1271	10	55	yes	NA
Pinus ayacahuite	0.9189	0.0401	4591	236412	1.94	0.1609	5	48	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Pinus cembroides	0.8936	0.0229	7	325184	0.00	0.2705	10	433	yes	NA
Pinus maximartinezii	NA	NA	NA	NA	NA	NA	NA	14	NA	Buffered occurrences used
Pinus monophylla	0.985	0.0109	8702	51497	16.90	0.1835	5	20	no	Buffered occurrences used
Pinus quadrifolia	NA	NA	NA	NA	NA	NA	NA	19	NA	Buffered occurrences used
Pithecellobium dulce	0.834	0.0117	0	606132	0.00	0.3562	10	1835	yes	NA
Porophyllum gracile	0.9475	0.0203	158	219253	0.07	0.1818	10	173	yes	NA
Porophyllum linaria	0.9246	0.0269	968	278692	0.35	0.2525	10	105	yes	NA
Porophyllum ruderale	0.8228	0.0395	90	511722	0.02	0.3549	10	210	yes	NA
Porophyllum scoparium	0.9108	0.0452	1459	286674	0.51	0.21	10	83	yes	NA
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Portulaca halimoides	0.5869	-0.5266	NA	NA	NA	0.542	5	10	no	Buffered occurrences used
Portulaca umbraticola	0.7752	0.0894	155770	136192	114.38	0.3781	5	18	no	Buffered occurrences used
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Pouteria campechiana	0.9221	0.0202	63	297079	0.02	0.2707	10	184	yes	NA
Pouteria durlandii	0.9481	0.0372	3026	85149	3.55	0.134	5	41	yes	NA
Pouteria glomerata	0.9239	0.0512	26437	146486	18.05	0.2537	5	18	no	Buffered occurrences used
Pouteria reticulata	0.9719	0.0077	27	166397	0.02	0.1772	10	84	yes	NA
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Pouteria sapota	0.9383	0.0251	3193	340228	0.94	0.1844	5	46	yes	NA
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	NA	Buffered occurrences used
Psidium guajava	0.8423	0.0286	203	521949	0.04	0.351	10	319	yes	NA
Psidium guineense	0.9397	0.0321	0	10662	0.00	0.0702	10	75	yes	NA
Psidium oligospermum	0.8801	0.0334	2387	324517	0.74	0.3066	10	180	yes	NA
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	NA	Buffered occurrences used
Salvia axillaris	0.9434	0.0324	30	229176	0.01	0.1907	10	51	yes	NA
Salvia candicans	0.8873	0.0626	110821	111200	99.66	0.3966	5	19	no	Buffered occurrences used
Salvia carnea	0.9294	0.0436	193	171232	0.11	0.2111	10	61	yes	NA
Salvia cinnabarina	0.9603	0.0195	59	268514	0.02	0.0744	10	84	yes	NA
Salvia coccinea	0.912	0.0172	16	299649	0.01	0.3358	10	402	yes	NA
Salvia columbariae	0.9726	0.0118	736	134205	0.55	0.1319	5	37	yes	NA
Salvia elegans	0.9273	0.0133	16	310153	0.01	0.1855	10	567	yes	NA
Salvia fluviatilis	0.8155	0.067	3739	445363	0.84	0.4819	5	10	yes	NA
Salvia helianthemifolia	0.9414	0.0283	6256	182813	3.42	0.179	5	36	yes	NA
Salvia hispanica	0.8961	0.0346	2587	335730	0.77	0.2271	10	127	yes	NA
Salvia laevis	0.9771	0.0086	195	111314	0.18	0.1318	10	128	yes	NA
Salvia lasiantha	0.9051	0.076	7025	83004	8.46	0.2514	5	20	yes	NA
Salvia lasiocephala	0.8908	0.0504	1799	237409	0.76	0.2384	10	107	yes	NA
Salvia leucantha	0.9015	0.0486	36185	302989	11.94	0.3757	5	18	no	Buffered occurrences used
Salvia longispicata	0.9236	0.0312	6465	281682	2.30	0.2886	5	28	yes	NA
Salvia longistyla	0.971	0.0131	8320	82562	10.08	0.2807	5	20	no	Buffered occurrences used
Salvia mexicana	0.9159	0.0248	272	373939	0.07	0.183	10	186	yes	NA
Salvia microphylla	0.9005	0.0174	3	384764	0.00	0.2258	10	548	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Salvia misella	0.8697	0.0467	2764	322351	0.86	0.2961	10	113	yes	NA
Salvia mocinoi	0.9547	0.0164	1412	250923	0.56	0.1023	10	105	yes	NA
Salvia oaxacana	0.9252	0.047	19723	83123	23.73	0.4504	5	19	no	Buffered occurrences used
Salvia occidentalis	0.8964	0.0236	1552	265360	0.58	0.265	10	211	yes	NA
Salvia patens	0.9408	0.0278	3968	218807	1.81	0.1705	5	45	yes	NA
Salvia polystachia	0.9347	0.0344	679	210173	0.32	0.166	10	108	yes	NA
Salvia prunelloides	0.9135	0.0364	114	351023	0.03	0.158	10	53	yes	NA
Salvia purpurea	0.9376	0.0129	0	365720	0.00	0.14	10	402	yes	NA
Salvia recurva	0.9869	0.0086	3426	25509	13.43	0.3674	5	13	no	Buffered occurrences used
Salvia regla	0.884	0.0373	1505	521574	0.29	0.2403	10	80	yes	NA
Salvia sanctae-luciae	0.9863	0.0023	0	45284	0.00	0.4667	5	13	yes	NA
Salvia setulosa	0.9097	0.0463	21481	265441	8.09	0.316	5	13	yes	NA
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	NA	Buffered occurrences used
Salvia thyrsiflora	0.9697	0.0127	95	183298	0.05	0.0644	10	131	yes	NA
Salvia tiliifolia	0.8642	0.0258	713	576413	0.12	0.243	10	340	yes	NA
Sechium chinantlense	0.9813	0.0115	1571	47694	3.29	0.2839	5	22	yes	NA
Sechium compositum	0.9797	0.0154	774	13693	5.65	0.2486	5	32	yes	NA
Sechium edule subsp. *sylvestre*	0.9675	0.0167	21	177337	0.01	0.0967	5	32	yes	NA
Sechium hintonii	0.9651	0.0123	3574	151881	2.35	0.3715	5	15	yes	NA
Simmondsia chinensis	0.948	0.0181	41	256225	0.02	0.1521	10	212	yes	NA
Solanum bulbocastanum	0.9206	0.0175	168	320061	0.05	0.2069	10	442	yes	NA
Solanum cardiophyllum	0.8566	0.0459	1341	314827	0.43	0.2704	10	241	yes	NA
Solanum clarum	NA	NA	NA	NA	NA	NA	NA	12	NA	Buffered occurrences used
Solanum demissum	0.8802	0.0254	464	248414	0.19	0.1836	10	683	yes	NA
Solanum ehrenbergii	0.9165	0.0292	550	242431	0.23	0.2543	10	179	yes	NA
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Solanum hintonii	0.7947	0.1116	37733	239195	15.77	0.3232	5	22	no	Buffered occurrences used
Solanum hjertingii	0.8334	0.0802	292	188678	0.15	0.341	10	81	yes	NA
Solanum hougasii	0.9615	0.0253	11	139858	0.01	0.1101	10	86	yes	NA
Solanum iopetalum	0.9083	0.0264	37	266279	0.01	0.1854	10	379	yes	NA
Solanum morelliforme	0.9379	0.0294	305	132544	0.23	0.2284	10	127	yes	NA
Solanum oxycarpum	0.9227	0.0457	8	186085	0.00	0.1815	10	81	yes	NA
Solanum pinnatisectum	0.9317	0.0437	699	118660	0.59	0.1321	10	108	yes	NA
Solanum polyadenium	0.9029	0.0488	628	225940	0.28	0.2084	10	116	yes	NA
Solanum schenckii	0.9205	0.0436	98	271530	0.04	0.1614	10	58	yes	NA
Solanum stenophyllidium	0.9035	0.037	1458	325454	0.45	0.2083	10	162	yes	NA
Solanum stoloniferum	0.8514	0.0166	339	499335	0.07	0.2985	10	1211	yes	NA
Solanum tarnii	0.9293	0.0492	564	149818	0.38	0.1052	5	38	yes	NA
Solanum trifidum	0.9266	0.0455	154	136319	0.11	0.1067	10	129	yes	NA
Solanum verrucosum	0.899	0.0241	307	276790	0.11	0.228	10	523	yes	NA
Spondias mombin	0.8969	0.0213	91	443311	0.02	0.2463	10	227	yes	NA
Spondias purpurea	0.8765	0.0297	2179	487936	0.45	0.2964	10	206	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	ATAUC[1]	STAUC[2]	Pixels >0.15	Pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid	Remarks
Stenocereus alamosensis	0.952	0.0281	312	163497	0.19	0.1607	5	46	yes	NA
Stenocereus beneckei	0.9887	0.0066	257	32534	0.79	0.2632	5	25	yes	NA
Stenocereus chrysocarpus	0.9646	0.0214	11530	55216	20.88	0.2664	5	17	no	Buffered occurrences used
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Stenocereus eruca	0.8996	0.0754	8000	93161	8.59	0.1572	5	26	yes	NA
Stenocereus fricii	0.9903	0.0061	3204	35678	8.98	0.245	5	13	yes	NA
Stenocereus griseus	0.8996	0.0621	205	280455	0.07	0.1692	10	51	yes	NA
Stenocereus gummosus	0.9701	0.0122	0	184041	0.00	0.1079	10	84	yes	NA
Stenocereus kerberi	0.9665	0.0224	7099	17380	40.85	0.3382	5	12	no	Buffered occurrences used
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Stenocereus montanus	0.9154	0.0457	17891	215964	8.28	0.2245	5	24	yes	NA
Stenocereus pruinosus	0.9273	0.0286	888	181318	0.49	0.2893	10	110	yes	NA
Stenocereus queretaroensis	0.9506	0.0221	79	221530	0.04	0.174	10	66	yes	NA
Stenocereus quevedonis	0.9663	0.0212	9489	77829	12.19	0.1384	5	16	no	Buffered occurrences used
Stenocereus standleyi	0.921	0.0464	23809	134135	17.75	0.3249	5	18	no	Buffered occurrences used
Stenocereus stellatus	0.959	0.0249	257	140032	0.18	0.1672	10	64	yes	NA
Stenocereus thurberi	0.9397	0.0185	1122	341239	0.33	0.1503	10	96	yes	NA
Stenocereus thurberi subsp. *littoralis*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stenocereus thurberi subsp. *thurberi*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stenocereus treleasei	0.9856	0.0097	1781	73410	2.43	0.1206	5	19	yes	NA
Tagetes erecta	0.8493	0.0158	237	669114	0.04	0.3086	10	801	yes	NA
Tagetes filifolia	0.882	0.0363	1293	485931	0.27	0.1726	10	173	yes	NA
Tagetes foetidissima	0.9449	0.0228	458	244434	0.19	0.1152	10	102	yes	NA
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	NA	Buffered occurrences used
Tagetes lucida	0.8779	0.0213	1	442018	0.00	0.3215	10	468	yes	NA
Tagetes micrantha	0.9032	0.0212	1377	402038	0.34	0.2556	10	259	yes	NA
Tagetes pringlei	0.9564	0.0222	0	235970	0.00	0.154	10	63	yes	NA
Tagetes stenophylla	0.9745	0.0151	0	146199	0.00	0.0932	10	51	yes	NA
Tagetes subulata	0.9148	0.0194	166	364393	0.05	0.2584	10	248	yes	NA
Theobroma cacao	0.9201	0.0422	585	213847	0.27	0.243	10	80	yes	NA
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Tripsacum bravum	NA	NA	NA	NA	NA	NA	NA	18	NA	Buffered occurrences used
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	NA	Buffered occurrences used
Tripsacum dactyloides var. *hispidum*	0.9185	0.0381	1793	225641	0.79	0.1796	10	186	yes	NA
Tripsacum dactyloides var. *mexicanum*	0.8705	0.0486	48796	240651	20.28	0.2238	5	28	no	Buffered occurrences used
Tripsacum intermedium	0.92	0.0195	0	291160	0.00	0.5411	5	13	yes	NA
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	NA	Buffered occurrences used
Tripsacum lanceolatum	0.883	0.0292	999	464296	0.22	0.2563	10	377	yes	NA
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Tripsacum laxum	0.8842	0.0245	0	519578	0.00	0.3767	5	13	yes	NA
Tripsacum maizar	0.8941	0.0598	13617	164306	8.29	0.4708	5	11	yes	NA
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	NA	Buffered occurrences used
Tripsacum pilosum	0.981	0.0096	13	111114	0.01	0.1017	10	55	yes	NA

Supplementary Table 3.4. Validation criteria of the species distribution models of priority CWR of Mexico (continued)

CWR Taxon	**ATAUC**[1]	**STAUC**[2]	**Pixels >0.15**	**Pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**	**Remarks**
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Tripsacum zopilotense	0.962	0.007	18996	89686	21.18	0.382	5	18	no	Buffered occurrences used
Vanilla planifolia	0.8956	0.0407	1378	559252	0.25	0.1387	10	73	yes	NA
Vanilla pompona	0.8654	0.0541	46379	301229	15.40	0.2448	5	26	no	Buffered occurrences used
Zea diploperennis	0.9829	0.011	103	7976	1.29	0.0584	10	52	yes	NA
Zea luxurians	NA	NA	NA	NA	NA	NA	NA	1	NA	Buffered occurrences used
Zea mays subsp. *mexicana*	0.9463	0.0106	46	213752	0.02	0.1983	10	479	yes	NA
Zea mays subsp. *parviglumis*	0.9628	0.0083	210	166590	0.13	0.1444	10	472	yes	NA
Zea perennis	0.9789	0.011	1609	123149	1.31	0.0494	5	31	yes	NA

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Agave aktites																		
Agave angustifolia		bio_2	bio_3										bio_13	bio_14	bio_15			
Agave angustifolia var. *deweyana*																		
Agave atrovirens	bio_1			bio_4														bio_18
Agave congesta		bio_2		bio_4				bio_8									bio_17	bio_18
Agave datylio								bio_8						bio_14				
Agave fourcroydes			bio_3						bio_9							bio_16		
Agave hiemiflora		bio_2		bio_4			bio_7					bio_12			bio_15			bio_18
Agave hurteri			bio_3				bio_7		bio_9									
Agave karwinskii			bio_3	bio_4											bio_15			
Agave kewensis																		
Agave macroacantha		bio_2		bio_4			bio_7				bio_11				bio_15		bio_17	
Agave macroculmis		bio_2		bio_4										bio_14	bio_15			bio_18
Agave mapisaga				bio_4			bio_7								bio_15			
Agave rhodacantha			bio_3				bio_7				bio_11				bio_15			
Agave seemanniana			bio_3				bio_7						bio_13				bio_17	bio_18
Agave sisalana			bio_3												bio_15		bio_17	bio_18
Agave stringens																		
Agave tequilana		bio_2										bio_12		bio_14				
Amaranthus australis			bio_3									bio_12						bio_18
Amaranthus blitoides				bio_4											bio_15		bio_17	
Amaranthus caudatus			bio_3				bio_7								bio_15			
Amaranthus crassipes																		
Amaranthus cruentus		bio_2		bio_4			bio_7								bio_15			bio_18
Amaranthus dubius			bio_3	bio_4			bio_7								bio_15			
Amaranthus fimbriatus		bio_2	bio_3				bio_7			bio_10				bio_14	bio_15		bio_17	
Amaranthus greggii		bio_2	bio_3	bio_4										bio_14	bio_15			bio_18
Amaranthus hybridus			bio_3	bio_4			bio_7						bio_13		bio_15			
Amaranthus hypochondriacus				bio_4			bio_7											
Amaranthus palmeri		bio_2	bio_3				bio_7	bio_8							bio_15			bio_18
Amaranthus polygonoides		bio_2		bio_4											bio_15	bio_16		bio_18
Amaranthus powellii		bio_2		bio_4				bio_8							bio_15	bio_16		bio_18
Amaranthus scariosus		bio_2	bio_3				bio_7								bio_15			bio_18
Amaranthus spinosus		bio_2		bio_4			bio_7					bio_12			bio_15			bio_18
Amaranthus tamaulipensis																		
Amaranthus torreyi		bio_2		bio_4			bio_7	bio_8							bio_15	bio_16		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Annona cherimola		bio_2	bio_3															bio_18
Annona glabra		bio_2		bio_4											bio_15			bio_18
Annona globiflora		bio_2	bio_3	bio_4											bio_15			bio_18
Annona liebmanniana		bio_2	bio_3				bio_7							bio_14	bio_15			
Annona longiflora		bio_2	bio_3	bio_4														bio_18
Annona longipes																		
Annona macroprophyllata				bio_4			bio_7								bio_15			bio_18
Annona muricata		bio_2	bio_3					bio_8							bio_15			bio_18
Annona palmeri																		
Annona purpurea			bio_3			bio_6	bio_7								bio_15			bio_18
Annona reticulata			bio_3				bio_7					bio_12			bio_15			bio_18
Annona squamosa		bio_2	bio_3				bio_7					bio_12			bio_15			bio_18
Bixa orellana		bio_2	bio_3												bio_15	bio_16		bio_18
Byrsonima crassifolia			bio_3				bio_7						bio_13				bio_17	bio_18
Capsicum annuum var. *glabriusculum*			bio_3				bio_7				bio_11				bio_15		bio_17	bio_18
Capsicum frutescens		bio_2		bio_4			bio_7						bio_13		bio_15		bio_17	bio_18
Carica papaya		bio_2	bio_3	bio_4							bio_11				bio_15			bio_18
Carya illinoinensis		bio_2	bio_3				bio_7	bio_8						bio_14	bio_15			
Carya myristiciformis		bio_2		bio_4											bio_15			
Carya ovata		bio_2	bio_3				bio_7								bio_15			bio_18
Carya palmeri		bio_2	bio_3				bio_7								bio_15			
Crataegus mexicana			bio_3	bio_4			bio_7						bio_13		bio_15		bio_17	bio_18
Crataegus tracyi var. *coahuilensis*																		
Crataegus uniflora																		
Cucurbita argyrosperma				bio_4			bio_7	bio_8				bio_12			bio_15		bio_17	bio_18
Cucurbita argyrosperma subsp. *sororia*		bio_2	bio_3							bio_10		bio_12			bio_15			bio_18
Cucurbita cordata		bio_2	bio_3	bio_4		bio_6		bio_8						bio_14	bio_15		bio_17	
Cucurbita digitata		bio_2		bio_4											bio_15		bio_17	
Cucurbita foetidissima		bio_2	bio_3				bio_7		bio_9					bio_14	bio_15			
Cucurbita lundelliana		bio_2	bio_3	bio_4											bio_15	bio_16		bio_18
Cucurbita okeechobeensis subsp. *martinezii*		bio_2	bio_3	bio_4								bio_12			bio_15			bio_18
Cucurbita palmata		bio_2	bio_3				bio_7						bio_13		bio_15			
Cucurbita pedatifolia			bio_3				bio_7					bio_12			bio_15			

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Cucurbita pepo subsp. *fraterna*		bio_2		bio_4					bio_9				bio_13	bio_14	bio_15	bio_16		
Cucurbita radicans		bio_2		bio_4									bio_13	bio_14				bio_18
Diospyros conzattii			bio_3	bio_4			bio_7							bio_14				bio_18
Diospyros johnstoniana																		
Diospyros rosei																		
Gossypium aridum		bio_2	bio_3		bio_5										bio_15			bio_18
Gossypium barbadense		bio_2		bio_4											bio_15			
Gossypium gossypioides		bio_2	bio_3				bio_7					bio_12		bio_14	bio_15			
Gossypium hirsutum		bio_2	bio_3									bio_12			bio_15			bio_18
Gossypium schwendimanii																		
Gossypium thurberi		bio_2	bio_3						bio_9					bio_14	bio_15			bio_18
Helianthus annuus		bio_2	bio_3				bio_7		bio_9						bio_15			
Helianthus californicus			bio_3															
Helianthus ciliaris			bio_3				bio_7		bio_9						bio_15			
Helianthus gracilentus																		
Helianthus hirsutus																		
Helianthus laciniatus		bio_2					bio_7		bio_9						bio_15			bio_18
Helianthus niveus		bio_2		bio_4					bio_9						bio_15		bio_17	
Helianthus niveus subsp. *niveus*																		
Helianthus niveus subsp. *tephrodes*																		
Hylocereus ocamponis		bio_2		bio_4									bio_13					bio_18
Ipomoea batatas		bio_2	bio_3				bio_7								bio_15			bio_18
Ipomoea leucantha					bio_5			bio_8										bio_18
Ipomoea tabascana																		
Ipomoea tiliacea		bio_2	bio_3	bio_4									bio_13	bio_14	bio_15			bio_18
Ipomoea trifida		bio_2		bio_4	bio_5		bio_7				bio_11		bio_13					bio_18
Ipomoea triloba		bio_2	bio_3	bio_4				bio_8						bio_14		bio_16		bio_18
Jacaratia dolichaula			bio_3				bio_7					bio_12			bio_15			bio_18
Jacaratia mexicana		bio_2	bio_3												bio_15			bio_18
Jarilla caudata		bio_2	bio_3	bio_4								bio_12						bio_18
Jarilla heterophylla		bio_2	bio_3	bio_4	bio_5													bio_18
Jatropha andrieuxii		bio_2	bio_3										bio_13	bio_14			bio_17	bio_18
Jatropha bartlettii																		
Jatropha mcvaughii		bio_2	bio_3													bio_16		
Jatropha pseudocurcas																		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Jatropha rufescens																		
Leucaena confertiflora			bio_3	bio_4			bio_7	bio_8							bio_15			
Leucaena diversifolia		bio_2	bio_3				bio_7								bio_15			
Leucaena esculenta		bio_2	bio_3												bio_15			bio_18
Leucaena lanceolata			bio_3				bio_7						bio_13		bio_15			bio_18
Leucaena leucocephala		bio_2	bio_3												bio_15			bio_18
Manihot aesculifolia			bio_3	bio_4	bio_5		bio_7											bio_18
Manihot angustiloba		bio_2		bio_4					bio_9					bio_14	bio_15			bio_18
Manihot auriculata																		
Manihot caudata		bio_2	bio_3				bio_7		bio_9				bio_13		bio_15		bio_17	bio_18
Manihot chlorosticta		bio_2	bio_3										bio_13		bio_15		bio_17	bio_18
Manihot crassisepala		bio_2	bio_3				bio_7								bio_15			bio_18
Manihot davisiae		bio_2		bio_4			bio_7								bio_15			
Manihot foetida		bio_2	bio_3				bio_7			bio_10				bio_14	bio_15	bio_16		bio_18
Manihot michaelis		bio_2	bio_3	bio_4									bio_13		bio_15			
Manihot oaxacana		bio_2	bio_3				bio_7					bio_12			bio_15			bio_18
Manihot obovata																		
Manihot pauciflora		bio_2	bio_3												bio_15			
Manihot pringlei		bio_2					bio_7					bio_12			bio_15			
Manihot rhomboidea		bio_2		bio_4							bio_11			bio_14	bio_15			bio_18
Manihot rhomboidea subsp. *microcarpa*		bio_2	bio_3		bio_5										bio_15			bio_18
Manihot rubricaulis			bio_3				bio_7								bio_15	bio_16	bio_17	bio_18
Manihot rubricaulis subsp. *isoloba*			bio_3				bio_7						bio_13		bio_15			
Manihot rubricaulis subsp. *rubricaulis*																		
Manihot subspicata			bio_3		bio_5	bio_6	bio_7		bio_9						bio_15			
Manihot tomatophylla			bio_3				bio_7			bio_10					bio_15			bio_18
Manihot walkerae							bio_7											
Manilkara chicle		bio_2		bio_4			bio_7		bio_9						bio_15			bio_18
Manilkara zapota		bio_2	bio_3				bio_7	bio_8			bio_11				bio_15	bio_16		bio_18
Opuntia atropes		bio_2		bio_4														bio_18
Opuntia crassa																		
Opuntia deamii																		
Opuntia eichlamii																		
Opuntia ficus-indica		bio_2	bio_3				bio_7								bio_15	bio_16		
Opuntia hyptiacantha			bio_3	bio_4			bio_7				bio_11	bio_12			bio_15			

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Opuntia lasiacantha		bio_2	bio_3	bio_4											bio_15			
Opuntia spinulifera		bio_2	bio_3												bio_15			
Opuntia streptacantha		bio_2	bio_3				bio_7				bio_11				bio_15			
Opuntia undulata			bio_3	bio_4			bio_7							bio_14				bio_18
Opuntia velutina		bio_2	bio_3	bio_4									bio_13		bio_15			
Opuntia wilcoxii						bio_6	bio_7					bio_12		bio_14	bio_15			bio_18
Pachyrhizus erosus		bio_2		bio_4	bio_5									bio_14	bio_15			bio_18
Pachyrhizus ferrugineus		bio_2	bio_3				bio_7					bio_12			bio_15			bio_18
Persea americana		bio_2		bio_4											bio_15			bio_18
Persea schiedeana		bio_2	bio_3	bio_4		bio_6	bio_7								bio_15			bio_18
Phaseolus acutifolius			bio_3				bio_7							bio_14	bio_15			
Phaseolus acutifolius var. *acutifolius*		bio_2		bio_4							bio_11				bio_15		bio_17	bio_18
Phaseolus acutifolius var. *tenuifolius*			bio_3				bio_7				bio_11				bio_15			
Phaseolus albescens		bio_2	bio_3									bio_12		bio_14	bio_15			bio_18
Phaseolus angustissimus																		
Phaseolus carteri		bio_2		bio_4				bio_8							bio_15			
Phaseolus coccineus			bio_3			bio_6	bio_7								bio_15		bio_17	bio_18
Phaseolus coccineus subsp. *coccineus*		bio_2		bio_4											bio_15			bio_18
Phaseolus dumosus			bio_3				bio_7								bio_15	bio_16		bio_18
Phaseolus filiformis		bio_2		bio_4			bio_7	bio_8	bio_9				bio_13	bio_14	bio_15			
Phaseolus maculatus subsp. *ritensis*		bio_2	bio_3				bio_7			bio_10				bio_14	bio_15	bio_16		bio_18
Phaseolus parvifolius		bio_2		bio_4								bio_12			bio_15		bio_17	bio_18
Phaseolus vulgaris			bio_3				bio_7								bio_15	bio_16		bio_18
Phaseolus vulgaris var. *aborigineus*				bio_4			bio_7				bio_11						bio_17	bio_18
Physalis acutifolia		bio_2		bio_4									bio_13		bio_15			
Physalis ampla		bio_2	bio_3									bio_12	bio_13					
Physalis angulata		bio_2		bio_4									bio_13					bio_18
Physalis crassifolia		bio_2	bio_3				bio_7	bio_8							bio_15		bio_17	
Physalis lagascae			bio_3	bio_4			bio_7							bio_14				bio_18
Physalis microcarpa																		
Physalis philadelphica				bio_4			bio_7			bio_10				bio_14	bio_15			bio_18
Physalis sulphurea		bio_2		bio_4					bio_9				bio_13				bio_17	bio_18
Pinus ayacahuite		bio_2	bio_3				bio_7	bio_8			bio_11				bio_15			

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Pinus cembroides		bio_2		bio_4					bio_9			bio_12			bio_15		bio_17	
Pinus maximartinezii																		
Pinus monophylla			bio_3				bio_7					bio_12						
Pinus quadrifolia																		
Pithecellobium dulce			bio_3				bio_7		bio_9				bio_13		bio_15			bio_18
Porophyllum gracile		bio_2	bio_3					bio_8	bio_9			bio_12		bio_14	bio_15			
Porophyllum linaria		bio_2	bio_3	bio_4											bio_15			
Porophyllum ruderale			bio_3				bio_7				bio_11				bio_15	bio_16		
Porophyllum scoparium		bio_2	bio_3		bio_5		bio_7		bio_9						bio_15			
Porophyllum warnockii																		
Portulaca halimoides				bio_4											bio_15			
Portulaca umbraticola			bio_3				bio_7							bio_14	bio_15			
Pouteria belizensis																		
Pouteria campechiana				bio_4			bio_7								bio_15			bio_18
Pouteria durlandii		bio_2	bio_3				bio_7							bio_14	bio_15			bio_18
Pouteria glomerata		bio_2				bio_6								bio_14				bio_18
Pouteria reticulata			bio_3	bio_4			bio_7			bio_10					bio_15			
Pouteria rhynchocarpa																		
Pouteria sapota		bio_2		bio_4									bio_13		bio_15		bio_17	
Pouteria torta																		
Psidium friedrichsthalianum																		
Psidium guajava				bio_4			bio_7						bio_13		bio_15			bio_18
Psidium guineense				bio_4			bio_7											bio_18
Psidium oligospermum			bio_3	bio_4			bio_7		bio_9									bio_18
Psidium salutare																		
Salvia axillaris		bio_2	bio_3	bio_4		bio_6								bio_14	bio_15			
Salvia candicans							bio_7											
Salvia carnea		bio_2	bio_3		bio_5										bio_15			bio_18
Salvia cinnabarina			bio_3		bio_5		bio_7								bio_15	bio_16		bio_18
Salvia coccinea		bio_2	bio_3				bio_7								bio_15			bio_18
Salvia columbariae		bio_2		bio_4									bio_13	bio_14	bio_15			bio_18
Salvia elegans				bio_4			bio_7								bio_15		bio_17	bio_18
Salvia fluviatilis			bio_3				bio_7								bio_15			bio_18
Salvia helianthemifolia		bio_2	bio_3				bio_7								bio_15			bio_18
Salvia hispanica		bio_2		bio_4	bio_5						bio_11			bio_14	bio_15			bio_18
Salvia laevis		bio_2		bio_4			bio_7				bio_11			bio_14				bio_18
Salvia lasiantha				bio_4			bio_7								bio_15			
Salvia lasiocephala		bio_2	bio_3		bio_5										bio_15	bio_16		bio_18
Salvia leucantha		bio_2	bio_3	bio_4											bio_15			bio_18

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Salvia longispicata			bio_3									bio_12						bio_18
Salvia longistyla		bio_2	bio_3	bio_4		bio_6						bio_12			bio_15			bio_18
Salvia mexicana		bio_2		bio_4											bio_15			bio_18
Salvia microphylla		bio_2	bio_3				bio_7			bio_10				bio_14	bio_15			bio_18
Salvia misella		bio_2	bio_3							bio_10					bio_15	bio_16		bio_18
Salvia mocinoi				bio_4			bio_7											bio_18
Salvia oaxacana							bio_7								bio_15		bio_17	
Salvia occidentalis		bio_2		bio_4											bio_15			bio_18
Salvia patens			bio_3				bio_7										bio_17	bio_18
Salvia polystachia			bio_3	bio_4			bio_7					bio_12			bio_15			bio_18
Salvia prunelloides		bio_2	bio_3				bio_7						bio_13		bio_15		bio_17	bio_18
Salvia purpurea			bio_3				bio_7								bio_15			bio_18
Salvia recurva		bio_2	bio_3			bio_6	bio_7							bio_14	bio_15			bio_18
Salvia regla		bio_2	bio_3			bio_6	bio_7		bio_9						bio_15	bio_16	bio_17	bio_18
Salvia sanctae-luciae																		
Salvia setulosa		bio_2	bio_3				bio_7		bio_9									bio_18
Salvia splendens																		
Salvia stricta																		
Salvia thyrsiflora			bio_3	bio_4			bio_7								bio_15		bio_17	bio_18
Salvia tiliifolia		bio_2		bio_4							bio_11			bio_14	bio_15			bio_18
Sechium chinantlense		bio_2												bio_14	bio_15			
Sechium compositum		bio_2	bio_3									bio_12		bio_14				
Sechium edule subsp. *sylvestre*			bio_3				bio_7					bio_12		bio_14	bio_15			
Sechium hintonii			bio_3	bio_4			bio_7											bio_18
Simmondsia chinensis			bio_3				bio_7					bio_12		bio_14	bio_15			
Solanum bulbocastanum			bio_3	bio_4			bio_7						bio_13		bio_15			bio_18
Solanum cardiophyllum		bio_2	bio_3				bio_7								bio_15	bio_16		bio_18
Solanum clarum																		
Solanum demissum		bio_2	bio_3			bio_6	bio_7			bio_10				bio_14	bio_15			bio_18
Solanum ehrenbergii		bio_2	bio_3				bio_7		bio_9					bio_14	bio_15	bio_16		bio_18
Solanum guerreroense																		
Solanum hintonii	bio_1	bio_2		bio_4											bio_15		bio_17	
Solanum hjertingii		bio_2	bio_3				bio_7							bio_14	bio_15			
Solanum hougasii		bio_2	bio_3	bio_4											bio_15			bio_18
Solanum iopetalum	bio_1		bio_3				bio_7							bio_14	bio_15			bio_18
Solanum morelliforme			bio_3				bio_7								bio_15		bio_17	bio_18
Solanum oxycarpum			bio_3				bio_7								bio_15		bio_17	bio_18
Solanum pinnatisectum		bio_2	bio_3				bio_7	bio_8							bio_15	bio_16		bio_18

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_1	bio_2	bio_3	bio_4	bio_5	bio_6	bio_7	bio_8	bio_9	bio_10	bio_11	bio_12	bio_13	bio_14	bio_15	bio_16	bio_17	bio_18
Solanum polyadenium		bio_2	bio_3	bio_4											bio_15			bio_18
Solanum schenckii			bio_3				bio_7				bio_11		bio_13		bio_15			bio_18
Solanum stenophyllidium		bio_2	bio_3											bio_14	bio_15			bio_18
Solanum stoloniferum		bio_2	bio_3				bio_7						bio_13		bio_15			bio_18
Solanum tarnii		bio_2	bio_3				bio_7								bio_15			
Solanum trifidum		bio_2	bio_3				bio_7								bio_15		bio_17	bio_18
Solanum verrucosum		bio_2	bio_3				bio_7							bio_14	bio_15			bio_18
Spondias mombin				bio_4			bio_7							bio_14	bio_15			bio_18
Spondias purpurea			bio_3	bio_4			bio_7											bio_18
Stenocereus alamosensis	bio_1		bio_3	bio_4					bio_9	bio_10		bio_12			bio_15			
Stenocereus beneckei			bio_3				bio_7							bio_14	bio_15			bio_18
Stenocereus chrysocarpus		bio_2		bio_4										bio_14				bio_18
Stenocereus eichlamii																		
Stenocereus eruca		bio_2	bio_3		bio_5	bio_6		bio_8	bio_9						bio_15			
Stenocereus fricii				bio_4			bio_7							bio_14		bio_16	bio_17	
Stenocereus griseus				bio_4			bio_7								bio_15		bio_17	bio_18
Stenocereus gummosus		bio_2	bio_3										bio_13	bio_14			bio_17	bio_18
Stenocereus kerberi		bio_2	bio_3										bio_13	bio_14	bio_15		bio_17	
Stenocereus martinezii																		
Stenocereus montanus		bio_2		bio_4		bio_6						bio_12		bio_14	bio_15			
Stenocereus pruinosus		bio_2		bio_4							bio_11				bio_15	bio_16		
Stenocereus queretaroensis		bio_2	bio_3	bio_4				bio_8							bio_15		bio_17	bio_18
Stenocereus quevedonis		bio_2	bio_3												bio_15			
Stenocereus standleyi	bio_1		bio_3	bio_4			bio_7								bio_15		bio_17	
Stenocereus stellatus		bio_2	bio_3	bio_4											bio_15	bio_16		
Stenocereus thurberi		bio_2	bio_3	bio_4				bio_8				bio_12			bio_15			
Stenocereus thurberi subsp. *littoralis*																		
Stenocereus thurberi subsp. *thurberi*																		
Stenocereus treleasei			bio_3															
Tagetes erecta			bio_3				bio_7								bio_15			bio_18
Tagetes filifolia		bio_2		bio_4														bio_18
Tagetes foetidissima		bio_2	bio_3		bio_5										bio_15			bio_18
Tagetes hartwegii																		
Tagetes lucida			bio_3				bio_7					bio_12			bio_15			bio_18
Tagetes micrantha				bio_4			bio_7						bio_13		bio_15			
Tagetes pringlei		bio_2		bio_4											bio_15			bio_18

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**bio_1**	**bio_2**	**bio_3**	**bio_4**	**bio_5**	**bio_6**	**bio_7**	**bio_8**	**bio_9**	**bio_10**	**bio_11**	**bio_12**	**bio_13**	**bio_14**	**bio_15**	**bio_16**	**bio_17**	**bio_18**
Tagetes stenophylla			bio_3				bio_7					bio_12			bio_15		bio_17	bio_18
Tagetes subulata		bio_2		bio_4									bio_13	bio_14	bio_15			bio_18
Theobroma cacao				bio_4			bio_7							bio_14				bio_18
Tripsacum andersonii																		
Tripsacum bravum																		
Tripsacum dactyloides var. *dactyloides*																		
Tripsacum dactyloides var. *hispidum*		bio_2		bio_4	bio_5	bio_6	bio_7						bio_13		bio_15			bio_18
Tripsacum dactyloides var. *mexicanum*	bio_1	bio_2	bio_3												bio_15	bio_16		bio_18
Tripsacum intermedium		bio_2																
Tripsacum jalapense																		
Tripsacum lanceolatum		bio_2		bio_4				bio_8						bio_14	bio_15			bio_18
Tripsacum latifolium																		
Tripsacum laxum		bio_2	bio_3															
Tripsacum maizar			bio_3				bio_7								bio_15			bio_18
Tripsacum manisuroides																		
Tripsacum pilosum			bio_3	bio_4											bio_15			bio_18
Tripsacum pilosum var. *guatemalense*																		
Tripsacum zopilotense			bio_3				bio_7								bio_15			
Vanilla planifolia		bio_2		bio_4			bio_7						bio_13		bio_15			bio_18
Vanilla pompona	bio_1	bio_2	bio_3	bio_4											bio_15			bio_18
Zea diploperennis							bio_7						bio_13		bio_15		bio_17	
Zea luxurians																		
Zea mays subsp. *mexicana*		bio_2		bio_4			bio_7	bio_8						bio_14	bio_15	bio_16		bio_18
Zea mays subsp. *parviglumis*			bio_3				bio_7							bio_14	bio_15			bio_18
Zea perennis			bio_3	bio_4											bio_15			bio_18
Total	7	159	169	119	16	15	141	24	25	11	19	36	39	63	202	29	44	162

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Agave aktites														
Agave angustifolia	bio_19													
Agave angustifolia var. *deweyana*														
Agave atrovirens	bio_19													tmin_1
Agave congesta														
Agave datylio	bio_19							tmean_7						
Agave fourcroydes							tmean_6							
Agave hiemiflora		tmean_1												
Agave hurteri														
Agave karwinskii									tmean_8					
Agave kewensis														
Agave macroacantha														
Agave macroculmis		tmean_1					tmean_6							
Agave mapisaga								tmean_7						
Agave rhodacantha											tmean_10			
Agave seemanniana								tmean_7						
Agave sisalana		tmean_1												
Agave stringens														
Agave tequilana	bio_19					tmean_5								
Amaranthus australis	bio_19													
Amaranthus blitoides				tmean_3				tmean_7						
Amaranthus caudatus													tmean_12	
Amaranthus crassipes														
Amaranthus cruentus									tmean_8					
Amaranthus dubius														
Amaranthus fimbriatus														tmin_1
Amaranthus greggii				tmean_3					tmean_8					
Amaranthus hybridus														
Amaranthus hypochondriacus														
Amaranthus palmeri														
Amaranthus polygonoides					tmean_4									
Amaranthus powellii	bio_19													
Amaranthus scariosus								tmean_7						
Amaranthus spinosus										tmean_9				
Amaranthus tamaulipensis														
Amaranthus torreyi				tmean_3										

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Annona cherimola													tmean_12	
Annona glabra		tmean_1												
Annona globiflora					tmean_4									
Annona liebmanniana										tmean_9				
Annona longiflora														
Annona longipes														
Annona macroprophyllata					tmean_4									
Annona muricata														
Annona palmeri														
Annona purpurea														
Annona reticulata														
Annona squamosa													tmean_12	
Bixa orellana							tmean_6							
Byrsonima crassifolia													tmean_12	
Capsicum annuum var. *glabriusculum*										tmean_9				
Capsicum frutescens				tmean_3										
Carica papaya														
Carya illinoinensis			tmean_2											
Carya myristiciformis											tmean_10			
Carya ovata														
Carya palmeri	bio_19													
Crataegus mexicana										tmean_9				
Crataegus tracyi var. *coahuilensis*														
Crataegus uniflora														
Cucurbita argyrosperma													tmean_12	
Cucurbita argyrosperma subsp. *sororia*														tmin_1
Cucurbita cordata							tmean_6							
Cucurbita digitata	bio_19													
Cucurbita foetidissima										tmean_9				
Cucurbita lundelliana														
Cucurbita okeechobeensis subsp. *martinezii*														
Cucurbita palmata														
Cucurbita pedatifolia				tmean_3										

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Cucurbita pepo subsp. *fraterna*						tmean_5								
Cucurbita radicans									tmean_8					
Diospyros conzattii														
Diospyros johnstoniana														
Diospyros rosei														
Gossypium aridum								tmean_7						
Gossypium barbadense					tmean_4									
Gossypium gossypioides				tmean_3										
Gossypium hirsutum														
Gossypium schwendimanii														
Gossypium thurberi														
Helianthus annuus					tmean_4				tmean_8					
Helianthus californicus														
Helianthus ciliaris				tmean_3										
Helianthus gracilentus														
Helianthus hirsutus														
Helianthus laciniatus												tmean_11		
Helianthus niveus			tmean_2			tmean_5								
Helianthus niveus subsp. *niveus*														
Helianthus niveus subsp. *tephrodes*														
Hylocereus ocamponis														
Ipomoea batatas														
Ipomoea leucantha							tmean_6							
Ipomoea tabascana														
Ipomoea tiliacea					tmean_4									
Ipomoea trifida														
Ipomoea triloba														
Jacaratia dolichaula														
Jacaratia mexicana		tmean_1												
Jarilla caudata												tmean_11		
Jarilla heterophylla												tmean_11		
Jatropha andrieuxii					tmean_4									
Jatropha bartlettii														
Jatropha mcvaughii	bio_19													tmin_1
Jatropha pseudocurcas														

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**bio_19**	**tmean_1**	**tmean_2**	**tmean_3**	**tmean_4**	**tmean_5**	**tmean_6**	**tmean_7**	**tmean_8**	**tmean_9**	**tmean_10**	**tmean_11**	**tmean_12**	**tmin_1**
Jatropha rufescens														
Leucaena confertiflora														
Leucaena diversifolia														
Leucaena esculenta														
Leucaena lanceolata		tmean_1												
Leucaena leucocephala										tmean_9				
Manihot aesculifolia			tmean_2											
Manihot angustiloba		tmean_1												
Manihot auriculata														
Manihot caudata				tmean_3										
Manihot chlorosticta			tmean_2						tmean_8					
Manihot crassisepala		tmean_1												
Manihot davisiae														
Manihot foetida													tmean_12	
Manihot michaelis	bio_19													
Manihot oaxacana											tmean_10			
Manihot obovata														
Manihot pauciflora														
Manihot pringlei			tmean_2					tmean_7						
Manihot rhomboidea														
Manihot rhomboidea subsp. *microcarpa*														
Manihot rubricaulis				tmean_3										
Manihot rubricaulis subsp. *isoloba*														
Manihot rubricaulis subsp. *rubricaulis*														
Manihot subspicata														
Manihot tomatophylla														
Manihot walkerae				tmean_3										
Manilkara chicle	bio_19													tmin_1
Manilkara zapota														
Opuntia atropes	bio_19											tmean_11		
Opuntia crassa														
Opuntia deamii														
Opuntia eichlamii														
Opuntia ficus-indica	bio_19													
Opuntia hyptiacantha														

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Opuntia lasiacantha														
Opuntia spinulifera				tmean_3										
Opuntia streptacantha									tmean_8					
Opuntia undulata														
Opuntia velutina														
Opuntia wilcoxii														
Pachyrhizus erosus									tmean_8					
Pachyrhizus ferrugineus														
Persea americana														
Persea schiedeana								tmean_7						
Phaseolus acutifolius								tmean_7						
Phaseolus acutifolius var. *acutifolius*														
Phaseolus acutifolius var. *tenuifolius*														
Phaseolus albescens						tmean_5								
Phaseolus angustissimus														
Phaseolus carteri														
Phaseolus coccineus														
Phaseolus coccineus subsp. *coccineus*														
Phaseolus dumosus														
Phaseolus filiformis				tmean_3										tmin_1
Phaseolus maculatus subsp. *ritensis*														
Phaseolus parvifolius			tmean_2											
Phaseolus vulgaris														
Phaseolus vulgaris var. *aborigineus*														
Physalis acutifolia										tmean_9			tmean_12	
Physalis ampla												tmean_11		
Physalis angulata										tmean_9			tmean_12	
Physalis crassifolia							tmean_6				tmean_10			
Physalis lagascae														
Physalis microcarpa														
Physalis philadelphica		tmean_1												
Physalis sulphurea	bio_19													
Pinus ayacahuite														

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Pinus cembroides	bio_19	tmean_1												
Pinus maximartinezii														
Pinus monophylla												tmean_11		
Pinus quadrifolia														
Pithecellobium dulce									tmean_8					
Porophyllum gracile			tmean_2											
Porophyllum linaria								tmean_7						
Porophyllum ruderale	bio_19						tmean_6							
Porophyllum scoparium				tmean_3										
Porophyllum warnockii														
Portulaca halimoides						tmean_5								
Portulaca umbraticola										tmean_9				
Pouteria belizensis														
Pouteria campechiana														tmin_1
Pouteria durlandii		tmean_1								tmean_9				
Pouteria glomerata														
Pouteria reticulata														
Pouteria rhynchocarpa														
Pouteria sapota													tmean_12	
Pouteria torta														
Psidium friedrichsthalianum														
Psidium guajava										tmean_9				tmin_1
Psidium guineense														
Psidium oligospermum														
Psidium salutare														
Salvia axillaris	bio_19													
Salvia candicans		tmean_1												
Salvia carnea														
Salvia cinnabarina												tmean_11		
Salvia coccinea				tmean_3						tmean_9				
Salvia columbariae														
Salvia elegans												tmean_11		
Salvia fluviatilis	bio_19													
Salvia helianthemifolia	bio_19												tmean_12	
Salvia hispanica	bio_19													
Salvia laevis														
Salvia lasiantha											tmean_10			
Salvia lasiocephala														
Salvia leucantha														

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Salvia longispicata														
Salvia longistyla	bio_19													
Salvia mexicana	bio_19													
Salvia microphylla														
Salvia misella	bio_19			tmean_3										
Salvia mocinoi														
Salvia oaxacana														
Salvia occidentalis												tmean_11		
Salvia patens	bio_19													
Salvia polystachia												tmean_11		
Salvia prunelloides														
Salvia purpurea											tmean_10			
Salvia recurva														
Salvia regla														
Salvia sanctae-luciae														
Salvia setulosa														
Salvia splendens														
Salvia stricta														
Salvia thyrsiflora														
Salvia tiliifolia														
Sechium chinantlense					tmean_4									
Sechium compositum		tmean_1												
Sechium edule subsp. *sylvestre*								tmean_7						
Sechium hintonii										tmean_9				
Simmondsia chinensis							tmean_6							
Solanum bulbocastanum	bio_19													
Solanum cardiophyllum														
Solanum clarum														
Solanum demissum														
Solanum ehrenbergii														
Solanum guerreroense														
Solanum hintonii														
Solanum hjertingii														
Solanum hougasii										tmean_9				
Solanum iopetalum														
Solanum morelliforme														
Solanum oxycarpum											tmean_10			
Solanum pinnatisectum														

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Solanum polyadenium	bio_19													
Solanum schenckii														
Solanum stenophyllidium	bio_19									tmean_9				
Solanum stoloniferum														tmin_1
Solanum tarnii														
Solanum trifidum					tmean_4									
Solanum verrucosum				tmean_3										
Spondias mombin														
Spondias purpurea			tmean_2											
Stenocereus alamosensis														
Stenocereus beneckei	bio_19				tmean_4									
Stenocereus chrysocarpus														
Stenocereus eichlamii														
Stenocereus eruca														
Stenocereus fricii														
Stenocereus griseus														
Stenocereus gummosus					tmean_4									
Stenocereus kerberi														
Stenocereus martinezii														
Stenocereus montanus	bio_19								tmean_8					
Stenocereus pruinosus														
Stenocereus queretaroensis														
Stenocereus quevedonis	bio_19													
Stenocereus standleyi	bio_19													
Stenocereus stellatus														
Stenocereus thurberi													tmean_12	
Stenocereus thurberi subsp. *littoralis*														
Stenocereus thurberi subsp. *thurberi*														
Stenocereus treleasei														
Tagetes erecta														
Tagetes filifolia			tmean_2											
Tagetes foetidissima														
Tagetes hartwegii														
Tagetes lucida	bio_19						tmean_6						tmean_12	
Tagetes micrantha														
Tagetes pringlei									tmean_8				tmean_12	

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	bio_19	tmean_1	tmean_2	tmean_3	tmean_4	tmean_5	tmean_6	tmean_7	tmean_8	tmean_9	tmean_10	tmean_11	tmean_12	tmin_1
Tagetes stenophylla	bio_19	tmean_1												
Tagetes subulata											tmean_10			
Theobroma cacao			tmean_2											
Tripsacum andersonii														
Tripsacum bravum														
Tripsacum dactyloides var. *dactyloides*														
Tripsacum dactyloides var. *hispidum*									tmean_8					
Tripsacum dactyloides var. *mexicanum*														
Tripsacum intermedium			tmean_2											
Tripsacum jalapense														
Tripsacum lanceolatum														
Tripsacum latifolium														
Tripsacum laxum														
Tripsacum maizar							tmean_6							
Tripsacum manisuroides														
Tripsacum pilosum	bio_19			tmean_3										
Tripsacum pilosum var. *guatemalense*														
Tripsacum zopilotense	bio_19													
Vanilla planifolia			tmean_2											
Vanilla pompona														
Zea diploperennis	bio_19													
Zea luxurians														
Zea mays subsp. *mexicana*	bio_19													
Zea mays subsp. *parviglumis*	bio_19													
Zea perennis														
Total	38	14	12	17	11	5	10	11	12	15	8	10	13	9

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Agave aktites															
Agave angustifolia	tmin_2						tmin_8								
Agave angustifolia var. *deweyana*															
Agave atrovirens															
Agave congesta															
Agave datylio											tmin_12	tmax_1			
Agave fourcroydes		tmin_3					tmin_8		tmin_10			tmax_1			
Agave hiemiflora															
Agave hurteri															
Agave karwinskii												tmax_1			
Agave kewensis															
Agave macroacantha															
Agave macroculmis															
Agave mapisaga	tmin_2													tmax_3	
Agave rhodacantha															
Agave seemanniana															
Agave sisalana							tmin_8								tmax_4
Agave stringens															
Agave tequilana		tmin_3													
Amaranthus australis			tmin_4										tmax_2		
Amaranthus blitoides	tmin_2												tmax_2		
Amaranthus caudatus								tmin_9							
Amaranthus crassipes															
Amaranthus cruentus		tmin_3												tmax_3	
Amaranthus dubius								tmin_9							
Amaranthus fimbriatus															tmax_4
Amaranthus greggii						tmin_7				tmin_11					
Amaranthus hybridus							tmin_8					tmax_1			
Amaranthus hypochondriacus	tmin_2												tmax_2		
Amaranthus palmeri			tmin_4		tmin_6										
Amaranthus polygonoides							tmin_8								
Amaranthus powellii	tmin_2							tmin_9					tmax_2		
Amaranthus scariosus															
Amaranthus spinosus															tmax_4
Amaranthus tamaulipensis															
Amaranthus torreyi				tmin_5						tmin_11					tmax_4

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**tmin_2**	**tmin_3**	**tmin_4**	**tmin_5**	**tmin_6**	**tmin_7**	**tmin_8**	**tmin_9**	**tmin_10**	**tmin_11**	**tmin_12**	**tmax_1**	**tmax_2**	**tmax_3**	**tmax_4**
Annona cherimola															
Annona glabra			tmin_4			tmin_7									
Annona globiflora										tmin_11				tmax_3	
Annona liebmanniana												tmax_1			
Annona longiflora										tmin_11					tmax_4
Annona longipes															
Annona macroprophyllata															
Annona muricata															
Annona palmeri															
Annona purpurea															
Annona reticulata		tmin_3													
Annona squamosa								tmin_9						tmax_3	
Bixa orellana													tmax_2		
Byrsonima crassifolia								tmin_9							tmax_4
Capsicum annuum var. *glabriusculum*															
Capsicum frutescens															
Carica papaya							tmin_8								
Carya illinoinensis															tmax_4
Carya myristiciformis												tmax_1			
Carya ovata										tmin_11			tmax_2		
Carya palmeri	tmin_2													tmax_3	
Crataegus mexicana														tmax_3	
Crataegus tracyi var. *coahuilensis*															
Crataegus uniflora															
Cucurbita argyrosperma															
Cucurbita argyrosperma subsp. *sororia*															tmax_4
Cucurbita cordata													tmax_2		
Cucurbita digitata											tmin_12				
Cucurbita foetidissima											tmin_12	tmax_1			tmax_4
Cucurbita lundelliana										tmin_11					
Cucurbita okeechobeensis subsp. *martinezii*					tmin_6							tmax_1			
Cucurbita palmata					tmin_6								tmax_2		
Cucurbita pedatifolia															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Cucurbita pepo subsp. *fraterna*							tmin_8								
Cucurbita radicans															
Diospyros conzattii							tmin_8						tmax_2		
Diospyros johnstoniana															
Diospyros rosei															
Gossypium aridum										tmin_11					
Gossypium barbadense															
Gossypium gossypioides															
Gossypium hirsutum							tmin_8				tmin_12	tmax_1			
Gossypium schwendimanii															
Gossypium thurberi					tmin_6										
Helianthus annuus												tmax_1			
Helianthus californicus						tmin_7					tmin_12				
Helianthus ciliaris															
Helianthus gracilentus															
Helianthus hirsutus															
Helianthus laciniatus						tmin_7									
Helianthus niveus															
Helianthus niveus subsp. *niveus*															
Helianthus niveus subsp. *tephrodes*															
Hylocereus ocamponis			tmin_4			tmin_7									
Ipomoea batatas	tmin_2											tmax_1			
Ipomoea leucantha				tmin_5										tmax_3	
Ipomoea tabascana															
Ipomoea tiliacea															
Ipomoea trifida					tmin_6										
Ipomoea triloba			tmin_4												
Jacaratia dolichaula						tmin_7								tmax_3	
Jacaratia mexicana			tmin_4					tmin_9					tmax_2		
Jarilla caudata								tmin_9					tmax_2		
Jarilla heterophylla															
Jatropha andrieuxii															
Jatropha bartlettii															
Jatropha mcvaughii													tmax_2		
Jatropha pseudocurcas															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Jatropha rufescens															
Leucaena confertiflora															
Leucaena diversifolia			tmin_4											tmax_3	
Leucaena esculenta		tmin_3												tmax_3	
Leucaena lanceolata							tmin_8								
Leucaena leucocephala	tmin_2														
Manihot aesculifolia							tmin_8								
Manihot angustiloba							tmin_8								
Manihot auriculata															
Manihot caudata								tmin_9							
Manihot chlorosticta															tmax_4
Manihot crassisepala															
Manihot davisiae															
Manihot foetida															
Manihot michaelis															
Manihot oaxacana															
Manihot obovata															
Manihot pauciflora										tmin_11					
Manihot pringlei															
Manihot rhomboidea															
Manihot rhomboidea subsp. *microcarpa*							tmin_8								
Manihot rubricaulis							tmin_8								
Manihot rubricaulis subsp. *isoloba*							tmin_8								
Manihot rubricaulis subsp. *rubricaulis*															
Manihot subspicata					tmin_6								tmax_2		tmax_4
Manihot tomatophylla															
Manihot walkerae												tmax_1			
Manilkara chicle													tmax_2		
Manilkara zapota															tmax_4
Opuntia atropes															
Opuntia crassa															
Opuntia deamii															
Opuntia eichlamii															
Opuntia ficus-indica	tmin_2														tmax_4
Opuntia hyptiacantha															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**tmin_2**	**tmin_3**	**tmin_4**	**tmin_5**	**tmin_6**	**tmin_7**	**tmin_8**	**tmin_9**	**tmin_10**	**tmin_11**	**tmin_12**	**tmax_1**	**tmax_2**	**tmax_3**	**tmax_4**
Opuntia lasiacantha											tmin_12				tmax_4
Opuntia spinulifera															
Opuntia streptacantha															
Opuntia undulata															
Opuntia velutina								tmin_9							
Opuntia wilcoxii															
Pachyrhizus erosus												tmax_1			
Pachyrhizus ferrugineus								tmin_9						tmax_3	
Persea americana									tmin_10			tmax_1			
Persea schiedeana												tmax_1			
Phaseolus acutifolius			tmin_4												
Phaseolus acutifolius var. *acutifolius*							tmin_8								tmax_4
Phaseolus acutifolius var. *tenuifolius*							tmin_8								
Phaseolus albescens															
Phaseolus angustissimus															
Phaseolus carteri													tmax_2		
Phaseolus coccineus													tmax_2		
Phaseolus coccineus subsp. *coccineus*			tmin_4									tmax_1			
Phaseolus dumosus										tmin_11					
Phaseolus filiformis															
Phaseolus maculatus subsp. *ritensis*										tmin_11					
Phaseolus parvifolius					tmin_6										
Phaseolus vulgaris								tmin_9						tmax_3	
Phaseolus vulgaris var. *aborigineus*						tmin_7									
Physalis acutifolia															
Physalis ampla						tmin_7									
Physalis angulata															
Physalis crassifolia															
Physalis lagascae							tmin_8							tmax_3	
Physalis microcarpa															
Physalis philadelphica															
Physalis sulphurea	tmin_2														
Pinus ayacahuite															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Pinus cembroides									tmin_10						
Pinus maximartinezii															
Pinus monophylla															
Pinus quadrifolia															
Pithecellobium dulce			tmin_4												tmax_4
Porophyllum gracile															tmax_4
Porophyllum linaria												tmax_1			
Porophyllum ruderale															
Porophyllum scoparium								tmin_9							
Porophyllum warnockii															
Portulaca halimoides															
Portulaca umbraticola		tmin_3													
Pouteria belizensis															
Pouteria campechiana															
Pouteria durlandii		tmin_3												tmax_3	tmax_4
Pouteria glomerata								tmin_9							
Pouteria reticulata	tmin_2														
Pouteria rhynchocarpa															
Pouteria sapota								tmin_9						tmax_3	
Pouteria torta															
Psidium friedrichsthalianum															
Psidium guajava														tmax_3	
Psidium guineense				tmin_5											
Psidium oligospermum			tmin_4											tmax_3	
Psidium salutare															
Salvia axillaris													tmax_2		
Salvia candicans															
Salvia carnea															
Salvia cinnabarina															
Salvia coccinea															
Salvia columbariae								tmin_9							
Salvia elegans															
Salvia fluviatilis								tmin_9						tmax_3	
Salvia helianthemifolia															
Salvia hispanica															
Salvia laevis							tmin_8			tmin_11					
Salvia lasiantha															
Salvia lasiocephala				tmin_5									tmax_2		
Salvia leucantha															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Salvia longispicata		tmin_3					tmin_8								
Salvia longistyla															
Salvia mexicana										tmin_11				tmax_3	
Salvia microphylla										tmin_11		tmax_1			
Salvia misella															
Salvia mocinoi								tmin_9							
Salvia oaxacana									tmin_10						
Salvia occidentalis															
Salvia patens						tmin_7						tmax_1			
Salvia polystachia															
Salvia prunelloides											tmin_12			tmax_3	
Salvia purpurea															
Salvia recurva															
Salvia regla						tmin_7									
Salvia sanctae-luciae									tmin_10						
Salvia setulosa					tmin_6										
Salvia splendens															
Salvia stricta															
Salvia thyrsiflora							tmin_8								
Salvia tiliifolia							tmin_8								
Sechium chinantlense															
Sechium compositum															
Sechium edule subsp. *sylvestre*															
Sechium hintonii															
Simmondsia chinensis									tmin_10						
Solanum bulbocastanum						tmin_7								tmax_3	
Solanum cardiophyllum									tmin_10				tmax_2		
Solanum clarum															
Solanum demissum															
Solanum ehrenbergii		tmin_3													tmax_4
Solanum guerreroense															
Solanum hintonii															
Solanum hjertingii					tmin_6								tmax_2		
Solanum hougasii															
Solanum iopetalum															
Solanum morelliforme															
Solanum oxycarpum															
Solanum pinnatisectum			tmin_4												

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmin_2	tmin_3	tmin_4	tmin_5	tmin_6	tmin_7	tmin_8	tmin_9	tmin_10	tmin_11	tmin_12	tmax_1	tmax_2	tmax_3	tmax_4
Solanum polyadenium								tmin_9							
Solanum schenckii															
Solanum stenophyllidium									tmin_10			tmax_1			
Solanum stoloniferum						tmin_7							tmax_2		
Solanum tarnii			tmin_4											tmax_3	
Solanum trifidum															
Solanum verrucosum															
Spondias mombin										tmin_11		tmax_1			
Spondias purpurea															
Stenocereus alamosensis				tmin_5							tmin_12				
Stenocereus beneckei										tmin_11					
Stenocereus chrysocarpus									tmin_10						
Stenocereus eichlamii															
Stenocereus eruca				tmin_5			tmin_8					tmax_1			
Stenocereus fricii						tmin_7						tmax_1			
Stenocereus griseus	tmin_2											tmax_1			
Stenocereus gummosus															
Stenocereus kerberi		tmin_3							tmin_10						
Stenocereus martinezii															
Stenocereus montanus													tmax_2		
Stenocereus pruinosus															tmax_4
Stenocereus queretaroensis															
Stenocereus quevedonis		tmin_3												tmax_3	
Stenocereus standleyi															
Stenocereus stellatus			tmin_4										tmax_2		
Stenocereus thurberi				tmin_5											tmax_4
Stenocereus thurberi subsp. *littoralis*															
Stenocereus thurberi subsp. *thurberi*															
Stenocereus treleasei					tmin_6										
Tagetes erecta													tmax_2		
Tagetes filifolia							tmin_8								
Tagetes foetidissima	tmin_2														
Tagetes hartwegii															
Tagetes lucida															
Tagetes micrantha										tmin_11			tmax_2		
Tagetes pringlei															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**tmin_2**	**tmin_3**	**tmin_4**	**tmin_5**	**tmin_6**	**tmin_7**	**tmin_8**	**tmin_9**	**tmin_10**	**tmin_11**	**tmin_12**	**tmax_1**	**tmax_2**	**tmax_3**	**tmax_4**
Tagetes stenophylla															
Tagetes subulata															
Theobroma cacao								tmin_9							
Tripsacum andersonii															
Tripsacum bravum															
Tripsacum dactyloides var. *dactyloides*															
Tripsacum dactyloides var. *hispidum*															
Tripsacum dactyloides var. *mexicanum*			tmin_4												tmax_4
Tripsacum intermedium															
Tripsacum jalapense															
Tripsacum lanceolatum		tmin_3													
Tripsacum latifolium															
Tripsacum laxum	tmin_2														tmax_4
Tripsacum maizar															
Tripsacum manisuroides															
Tripsacum pilosum															
Tripsacum pilosum var. *guatemalense*															
Tripsacum zopilotense															
Vanilla planifolia							tmin_8								
Vanilla pompona												tmax_1			
Zea diploperennis															
Zea luxurians															
Zea mays subsp. *mexicana*															
Zea mays subsp. *parviglumis*		tmin_3													
Zea perennis													tmax_2		
Total	14	13	15	7	10	13	25	19	10	16	8	25	26	23	23

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Agave aktites															
Agave angustifolia		tmax_6						tmax_12					prec_5		prec_7
Agave angustifolia var. *deweyana*															
Agave atrovirens															
Agave congesta													prec_5		
Agave datylio					tmax_9				prec_1			prec_4			
Agave fourcroydes	tmax_5								prec_1		prec_3				
Agave hiemiflora												prec_4	prec_5		
Agave hurteri															
Agave karwinskii															prec_7
Agave kewensis															
Agave macroacantha													prec_5		
Agave macroculmis												prec_4		prec_6	
Agave mapisaga										prec_2					
Agave rhodacantha				tmax_8							prec_3	prec_4			
Agave seemanniana															
Agave sisalana			tmax_7												
Agave stringens															
Agave tequilana													prec_5		
Amaranthus australis												prec_4		prec_6	
Amaranthus blitoides		tmax_6								prec_2		prec_4			
Amaranthus caudatus													prec_5		
Amaranthus crassipes															
Amaranthus cruentus									prec_1					prec_6	
Amaranthus dubius				tmax_8									prec_5	prec_6	
Amaranthus fimbriatus										prec_2		prec_4	prec_5		
Amaranthus greggii	tmax_5				tmax_9								prec_5		prec_7
Amaranthus hybridus										prec_2			prec_5		
Amaranthus hypochondriacus				tmax_8									prec_5		
Amaranthus palmeri	tmax_5	tmax_6				tmax_10			prec_1		prec_3	prec_4	prec_5		prec_7
Amaranthus polygonoides								tmax_12		prec_2			prec_5	prec_6	
Amaranthus powellii				tmax_8							prec_3	prec_4			
Amaranthus scariosus								tmax_12				prec_4	prec_5		prec_7
Amaranthus spinosus										prec_2		prec_4	prec_5		
Amaranthus tamaulipensis															
Amaranthus torreyi		tmax_6			tmax_9				prec_1	prec_2			prec_5		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Annona cherimola												prec_4	prec_5		prec_7
Annona glabra	tmax_5										prec_3		prec_5	prec_6	prec_7
Annona globiflora								tmax_12		prec_2			prec_5		prec_7
Annona liebmanniana											prec_3		prec_5		
Annona longiflora										prec_2		prec_4	prec_5	prec_6	prec_7
Annona longipes															
Annona macroprophyllata													prec_5		
Annona muricata													prec_5		
Annona palmeri															
Annona purpurea							tmax_11		prec_1			prec_4			prec_7
Annona reticulata	tmax_5								prec_1			prec_4	prec_5		prec_7
Annona squamosa		tmax_6											prec_5	prec_6	
Bixa orellana										prec_2		prec_4			
Byrsonima crassifolia												prec_4			
Capsicum annuum var. *glabriusculum*													prec_5		prec_7
Capsicum frutescens					tmax_9								prec_5		
Carica papaya	tmax_5								prec_1			prec_4	prec_5		
Carya illinoinensis									prec_1				prec_5		prec_7
Carya myristiciformis													prec_5		
Carya ovata			tmax_7									prec_4	prec_5		
Carya palmeri			tmax_7										prec_5		
Crataegus mexicana													prec_5		
Crataegus tracyi var. *coahuilensis*															
Crataegus uniflora															
Cucurbita argyrosperma													prec_5		prec_7
Cucurbita argyrosperma subsp. *sororia*										prec_2			prec_5		
Cucurbita cordata			tmax_7						prec_1		prec_3	prec_4	prec_5		
Cucurbita digitata	tmax_5		tmax_7									prec_4	prec_5		
Cucurbita foetidissima									prec_1				prec_5		prec_7
Cucurbita lundelliana		tmax_6											prec_5	prec_6	prec_7
Cucurbita okeechobeensis subsp. *martinezii*									prec_1				prec_5		
Cucurbita palmata									prec_1			prec_4			
Cucurbita pedatifolia													prec_5		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Cucurbita pepo subsp. *fraterna*									prec_1		prec_3	prec_4	prec_5		
Cucurbita radicans									prec_1	prec_2	prec_3		prec_5		
Diospyros conzattii												prec_4	prec_5		
Diospyros johnstoniana															
Diospyros rosei															
Gossypium aridum							tmax_11						prec_5	prec_6	
Gossypium barbadense					tmax_9			tmax_12	prec_1			prec_4		prec_6	
Gossypium gossypioides				tmax_8								prec_4	prec_5		
Gossypium hirsutum		tmax_6											prec_5		
Gossypium schwendimanii															
Gossypium thurberi				tmax_8					prec_1		prec_3	prec_4			
Helianthus annuus									prec_1			prec_4			
Helianthus californicus													prec_5		
Helianthus ciliaris	tmax_5				tmax_9										
Helianthus gracilentus															
Helianthus hirsutus															
Helianthus laciniatus	tmax_5							tmax_12			prec_3			prec_6	
Helianthus niveus					tmax_9										
Helianthus niveus subsp. *niveus*															
Helianthus niveus subsp. *tephrodes*															
Hylocereus ocamponis									prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	
Ipomoea batatas	tmax_5									prec_2		prec_4			
Ipomoea leucantha									prec_1					prec_6	
Ipomoea tabascana															
Ipomoea tiliacea				tmax_8								prec_4			
Ipomoea trifida										prec_2		prec_4	prec_5	prec_6	
Ipomoea triloba								tmax_12					prec_5		
Jacaratia dolichaula					tmax_9								prec_5		
Jacaratia mexicana	tmax_5									prec_2			prec_5	prec_6	
Jarilla caudata				tmax_8						prec_2			prec_5	prec_6	
Jarilla heterophylla												prec_4		prec_6	prec_7
Jatropha andrieuxii										prec_2		prec_4	prec_5		
Jatropha bartlettii															
Jatropha mcvaughii					tmax_9				prec_1	prec_2	prec_3	prec_4	prec_5		
Jatropha pseudocurcas															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Jatropha rufescens															
Leucaena confertiflora													prec_5		
Leucaena diversifolia									prec_1				prec_5		
Leucaena esculenta					tmax_9					prec_2			prec_5		
Leucaena lanceolata										prec_2		prec_4		prec_6	
Leucaena leucocephala	tmax_5							tmax_12			prec_3		prec_5		
Manihot aesculifolia										prec_2		prec_4		prec_6	prec_7
Manihot angustiloba	tmax_5	tmax_6											prec_5		prec_7
Manihot auriculata															
Manihot caudata	tmax_5												prec_5	prec_6	prec_7
Manihot chlorosticta									prec_1	prec_2		prec_4	prec_5	prec_6	
Manihot crassisepala					tmax_9								prec_5		
Manihot davisiae							tmax_11			prec_2			prec_5		
Manihot foetida									prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	
Manihot michaelis					tmax_9				prec_1				prec_5	prec_6	prec_7
Manihot oaxacana													prec_5		
Manihot obovata															
Manihot pauciflora												prec_4			prec_7
Manihot pringlei									prec_1				prec_5		
Manihot rhomboidea			tmax_7						prec_1			prec_4		prec_6	
Manihot rhomboidea subsp. *microcarpa*									prec_1				prec_5	prec_6	prec_7
Manihot rubricaulis											prec_3	prec_4	prec_5	prec_6	
Manihot rubricaulis subsp. *isoloba*											prec_3	prec_4	prec_5		
Manihot rubricaulis subsp. *rubricaulis*															
Manihot subspicata									prec_1		prec_3	prec_4			prec_7
Manihot tomatophylla									prec_1	prec_2	prec_3	prec_4		prec_6	prec_7
Manihot walkerae				tmax_8						prec_2	prec_3				
Manilkara chicle				tmax_8								prec_4	prec_5	prec_6	
Manilkara zapota										prec_2		prec_4	prec_5		
Opuntia atropes									prec_1		prec_3	prec_4	prec_5	prec_6	prec_7
Opuntia crassa															
Opuntia deamii															
Opuntia eichlamii															
Opuntia ficus-indica		tmax_6										prec_4			
Opuntia hyptiacantha													prec_5		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**tmax_5**	**tmax_6**	**tmax_7**	**tmax_8**	**tmax_9**	**tmax_10**	**tmax_11**	**tmax_12**	**prec_1**	**prec_2**	**prec_3**	**prec_4**	**prec_5**	**prec_6**	**prec_7**
Opuntia lasiacantha													prec_5	prec_6	
Opuntia spinulifera												prec_4			prec_7
Opuntia streptacantha									prec_1			prec_4			
Opuntia undulata			tmax_7							prec_2	prec_3			prec_6	prec_7
Opuntia velutina								tmax_12					prec_5		
Opuntia wilcoxii						tmax_10			prec_1		prec_3	prec_4	prec_5		
Pachyrhizus erosus															prec_7
Pachyrhizus ferrugineus										prec_2			prec_5		prec_7
Persea americana											prec_3		prec_5	prec_6	
Persea schiedeana										prec_2		prec_4	prec_5		
Phaseolus acutifolius							tmax_11							prec_6	prec_7
Phaseolus acutifolius var. *acutifolius*										prec_2					
Phaseolus acutifolius var. *tenuifolius*	tmax_5										prec_3		prec_5	prec_6	
Phaseolus albescens									prec_1	prec_2	prec_3		prec_5		
Phaseolus angustissimus															
Phaseolus carteri									prec_1	prec_2					
Phaseolus coccineus				tmax_8									prec_5	prec_6	
Phaseolus coccineus subsp. *coccineus*	tmax_5												prec_5		prec_7
Phaseolus dumosus						tmax_10					prec_3		prec_5		
Phaseolus filiformis		tmax_6			tmax_9						prec_3	prec_4		prec_6	
Phaseolus maculatus subsp. *ritensis*										prec_2			prec_5	prec_6	
Phaseolus parvifolius			tmax_7						prec_1				prec_5		
Phaseolus vulgaris													prec_5		
Phaseolus vulgaris var. *aborigineus*													prec_5		prec_7
Physalis acutifolia	tmax_5														
Physalis ampla											prec_3	prec_4			
Physalis angulata	tmax_5											prec_4			prec_7
Physalis crassifolia			tmax_7							prec_2					
Physalis lagascae													prec_5	prec_6	
Physalis microcarpa															
Physalis philadelphica									prec_1				prec_5		
Physalis sulphurea					tmax_9					prec_2	prec_3		prec_5	prec_6	
Pinus ayacahuite										prec_2	prec_3		prec_5	prec_6	prec_7

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Pinus cembroides		tmax_6										prec_4			prec_7
Pinus maximartinezii															
Pinus monophylla												prec_4			
Pinus quadrifolia															
Pithecellobium dulce							tmax_11					prec_4		prec_6	
Porophyllum gracile					tmax_9							prec_4	prec_5		
Porophyllum linaria									prec_1			prec_4		prec_6	
Porophyllum ruderale												prec_4			
Porophyllum scoparium										prec_2		prec_4		prec_6	
Porophyllum warnockii															
Portulaca halimoides									prec_1		prec_3				prec_7
Portulaca umbraticola		tmax_6									prec_3				
Pouteria belizensis															
Pouteria campechiana							tmax_11				prec_3		prec_5		
Pouteria durlandii						tmax_10					prec_3	prec_4			prec_7
Pouteria glomerata		tmax_6				tmax_10									
Pouteria reticulata	tmax_5									prec_2	prec_3	prec_4	prec_5		
Pouteria rhynchocarpa															
Pouteria sapota		tmax_6											prec_5		
Pouteria torta															
Psidium friedrichsthalianum															
Psidium guajava										prec_2		prec_4			
Psidium guineense									prec_1			prec_4		prec_6	prec_7
Psidium oligospermum		tmax_6								prec_2			prec_5	prec_6	
Psidium salutare															
Salvia axillaris						tmax_10							prec_5	prec_6	
Salvia candicans												prec_4			
Salvia carnea									prec_1			prec_4		prec_6	
Salvia cinnabarina									prec_1			prec_4			
Salvia coccinea									prec_1		prec_3		prec_5	prec_6	
Salvia columbariae								tmax_12	prec_1				prec_5		
Salvia elegans		tmax_6							prec_1			prec_4	prec_5	prec_6	
Salvia fluviatilis		tmax_6										prec_4		prec_6	
Salvia helianthemifolia													prec_5		
Salvia hispanica													prec_5		prec_7
Salvia laevis				tmax_8								prec_4			
Salvia lasiantha												prec_4		prec_6	
Salvia lasiocephala											prec_3		prec_5		
Salvia leucantha				tmax_8				tmax_12			prec_3		prec_5		

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**tmax_5**	**tmax_6**	**tmax_7**	**tmax_8**	**tmax_9**	**tmax_10**	**tmax_11**	**tmax_12**	**prec_1**	**prec_2**	**prec_3**	**prec_4**	**prec_5**	**prec_6**	**prec_7**
Salvia longispicata									prec_1				prec_5		prec_7
Salvia longistyla				tmax_8					prec_1		prec_3	prec_4	prec_5		
Salvia mexicana											prec_3		prec_5	prec_6	prec_7
Salvia microphylla									prec_1				prec_5		
Salvia misella	tmax_5										prec_3		prec_5		
Salvia mocinoi									prec_1		prec_3		prec_5		prec_7
Salvia oaxacana													prec_5		
Salvia occidentalis		tmax_6											prec_5		prec_7
Salvia patens									prec_1			prec_4		prec_6	
Salvia polystachia										prec_2		prec_4	prec_5		
Salvia prunelloides					tmax_9					prec_2	prec_3	prec_4			
Salvia purpurea											prec_3			prec_6	prec_7
Salvia recurva											prec_3	prec_4			prec_7
Salvia regla								tmax_12					prec_5		
Salvia sanctae-luciae										prec_2					prec_7
Salvia setulosa									prec_1	prec_2		prec_4	prec_5		prec_7
Salvia splendens															
Salvia stricta															
Salvia thyrsiflora									prec_1				prec_5	prec_6	prec_7
Salvia tiliifolia												prec_4		prec_6	
Sechium chinantlense													prec_5		
Sechium compositum															
Sechium edule subsp. *sylvestre*															
Sechium hintonii									prec_1	prec_2			prec_5		
Simmondsia chinensis												prec_4	prec_5		
Solanum bulbocastanum												prec_4			
Solanum cardiophyllum	tmax_5								prec_1	prec_2	prec_3		prec_5		
Solanum clarum															
Solanum demissum												prec_4			
Solanum ehrenbergii					tmax_9					prec_2	prec_3	prec_4			
Solanum guerreroense															
Solanum hintonii									prec_1				prec_5		
Solanum hjertingii															prec_7
Solanum hougasii									prec_1	prec_2	prec_3	prec_4			
Solanum iopetalum									prec_1			prec_4	prec_5		
Solanum morelliforme							tmax_11					prec_4	prec_5	prec_6	
Solanum oxycarpum													prec_5	prec_6	
Solanum pinnatisectum	tmax_5				tmax_9				prec_1		prec_3				

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Solanum polyadenium								tmax_12					prec_5		
Solanum schenckii									prec_1		prec_3		prec_5		
Solanum stenophyllidium											prec_3	prec_4	prec_5		prec_7
Solanum stoloniferum										prec_2	prec_3	prec_4		prec_6	
Solanum tarnii									prec_1				prec_5		
Solanum trifidum									prec_1	prec_2			prec_5		
Solanum verrucosum									prec_1			prec_4			
Spondias mombin	tmax_5											prec_4		prec_6	
Spondias purpurea				tmax_8						prec_2		prec_4		prec_6	prec_7
Stenocereus alamosensis		tmax_6				tmax_10		tmax_12		prec_2	prec_3	prec_4			
Stenocereus beneckei									prec_1		prec_3			prec_6	
Stenocereus chrysocarpus									prec_1		prec_3		prec_5		
Stenocereus eichlamii															
Stenocereus eruca											prec_3				
Stenocereus fricii									prec_1	prec_2				prec_6	
Stenocereus griseus						tmax_10						prec_4	prec_5	prec_6	
Stenocereus gummosus			tmax_7										prec_5		
Stenocereus kerberi					tmax_9			tmax_12	prec_1	prec_2			prec_5	prec_6	
Stenocereus martinezii															
Stenocereus montanus												prec_4			prec_7
Stenocereus pruinosus				tmax_8							prec_3		prec_5		
Stenocereus queretaroensis									prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	
Stenocereus quevedonis				tmax_8					prec_1	prec_2	prec_3		prec_5		prec_7
Stenocereus standleyi											prec_3	prec_4	prec_5		prec_7
Stenocereus stellatus			tmax_7										prec_5		
Stenocereus thurberi				tmax_8									prec_5		
Stenocereus thurberi subsp. *littoralis*															
Stenocereus thurberi subsp. *thurberi*															
Stenocereus treleasei											prec_3	prec_4	prec_5		
Tagetes erecta													prec_5	prec_6	
Tagetes filifolia										prec_2		prec_4			prec_7
Tagetes foetidissima									prec_1	prec_2	prec_3		prec_5		
Tagetes hartwegii															
Tagetes lucida													prec_5		
Tagetes micrantha			tmax_7									prec_4			
Tagetes pringlei											prec_3	prec_4			prec_7

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	tmax_5	tmax_6	tmax_7	tmax_8	tmax_9	tmax_10	tmax_11	tmax_12	prec_1	prec_2	prec_3	prec_4	prec_5	prec_6	prec_7
Tagetes stenophylla									prec_1	prec_2					prec_7
Tagetes subulata											prec_3		prec_5	prec_6	
Theobroma cacao		tmax_6										prec_4	prec_5		prec_7
Tripsacum andersonii															
Tripsacum bravum															
Tripsacum dactyloides var. *dactyloides*															
Tripsacum dactyloides var. *hispidum*											prec_3		prec_5	prec_6	
Tripsacum dactyloides var. *mexicanum*									prec_1		prec_3			prec_6	
Tripsacum intermedium													prec_5		
Tripsacum jalapense															
Tripsacum lanceolatum								tmax_12			prec_3		prec_5	prec_6	
Tripsacum latifolium															
Tripsacum laxum											prec_3		prec_5		
Tripsacum maizar								tmax_12							
Tripsacum manisuroides															
Tripsacum pilosum										prec_2		prec_4	prec_5	prec_6	
Tripsacum pilosum var. *guatemalense*															
Tripsacum zopilotense						tmax_10				prec_2	prec_3	prec_4			
Vanilla planifolia													prec_5		
Vanilla pompona										prec_2			prec_5		
Zea diploperennis								tmax_12				prec_4			
Zea luxurians															
Zea mays subsp. *mexicana*													prec_5		
Zea mays subsp. *parviglumis*							tmax_11		prec_1		prec_3	prec_4	prec_5	prec_6	
Zea perennis									prec_1	prec_2		prec_4		prec_6	
Total	23	20	12	18	19	9	8	18	73	65	71	108	158	75	59

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Agave aktites															
Agave angustifolia						ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o		t_bs
Agave angustifolia var. *deweyana*															
Agave atrovirens		prec_9		prec_11					t_silt	t_clay					t_bs
Agave congesta						ref_depth									
Agave datylio		prec_9					t_gravel			t_clay		t_oc		t_cec_soil	
Agave fourcroydes				prec_11		ref_depth		t_sand							
Agave hiemiflora				prec_11		ref_depth									
Agave hurteri				prec_11	prec_12				t_silt	t_clay					t_bs
Agave karwinskii							t_gravel				t_ref_bulk				t_bs
Agave kewensis															
Agave macroacantha										t_clay					
Agave macroculmis						ref_depth					t_ref_bulk				t_bs
Agave mapisaga						ref_depth			t_silt					t_cec_soil	t_bs
Agave rhodacantha			prec_10				t_gravel				t_ref_bulk	t_oc			
Agave seemanniana			prec_10			ref_depth			t_silt	t_clay					
Agave sisalana						ref_depth		t_sand					t_ph_h2o		
Agave stringens															
Agave tequilana						ref_depth			t_silt						
Amaranthus australis						ref_depth	t_gravel			t_clay					
Amaranthus blitoides	prec_8														t_bs
Amaranthus caudatus			prec_10			ref_depth			t_silt		t_ref_bulk	t_oc			t_bs
Amaranthus crassipes															
Amaranthus cruentus						ref_depth					t_ref_bulk		t_ph_h2o		t_bs
Amaranthus dubius			prec_10			ref_depth	t_gravel		t_silt		t_ref_bulk			t_cec_soil	t_bs
Amaranthus fimbriatus	prec_8			prec_11	prec_12	ref_depth			t_silt			t_oc			t_bs
Amaranthus greggii		prec_9							t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Amaranthus hybridus						ref_depth	t_gravel		t_silt		t_ref_bulk				t_bs
Amaranthus hypochondriacus					prec_12	ref_depth		t_sand	t_silt			t_oc			t_bs
Amaranthus palmeri		prec_9		prec_11		ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc		t_cec_soil	t_bs
Amaranthus polygonoides						ref_depth	t_gravel	t_sand	t_silt			t_oc	t_ph_h2o	t_cec_soil	t_bs
Amaranthus powellii			prec_10	prec_11		ref_depth		t_sand							t_bs
Amaranthus scariosus		prec_9			prec_12	ref_depth	t_gravel		t_silt	t_clay			t_ph_h2o		t_bs
Amaranthus spinosus						ref_depth	t_gravel	t_sand	t_silt						t_bs
Amaranthus tamaulipensis															
Amaranthus torreyi				prec_11	prec_12	ref_depth			t_silt						t_bs

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Annona cherimola				prec_11		ref_depth	t_gravel			t_clay	t_ref_bulk			t_cec_soil	
Annona glabra		prec_9				ref_depth	t_gravel	t_sand			t_ref_bulk	t_oc	t_ph_h2o		
Annona globiflora		prec_9				ref_depth	t_gravel	t_sand			t_ref_bulk			t_cec_soil	
Annona liebmanniana	prec_8							t_sand	t_silt	t_clay	t_ref_bulk	t_oc			
Annona longiflora			prec_10			ref_depth		t_sand	t_silt		t_ref_bulk			t_cec_soil	t_bs
Annona longipes															
Annona macroprophyllata	prec_8				prec_12	ref_depth		t_sand	t_silt			t_oc			
Annona muricata	prec_8				prec_12	ref_depth	t_gravel		t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Annona palmeri															
Annona purpurea						ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc		t_cec_soil	t_bs
Annona reticulata						ref_depth		t_sand	t_silt	t_clay			t_ph_h2o		t_bs
Annona squamosa						ref_depth	t_gravel		t_silt	t_clay			t_ph_h2o	t_cec_soil	
Bixa orellana							t_gravel	t_sand	t_silt			t_oc	t_ph_h2o		
Byrsonima crassifolia						ref_depth	t_gravel	t_sand	t_silt						t_bs
Capsicum annuum var. *glabriusculum*		prec_9				ref_depth		t_sand		t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Capsicum frutescens						ref_depth	t_gravel	t_sand	t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	
Carica papaya		prec_9							t_silt	t_clay			t_ph_h2o	t_cec_soil	
Carya illinoinensis		prec_9				ref_depth	t_gravel		t_silt	t_clay		t_oc	t_ph_h2o		t_bs
Carya myristiciformis	prec_8				prec_12	ref_depth			t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Carya ovata	prec_8					ref_depth		t_sand	t_silt					t_cec_soil	t_bs
Carya palmeri	prec_8					ref_depth				t_clay			t_ph_h2o		t_bs
Crataegus mexicana						ref_depth		t_sand	t_silt				t_ph_h2o	t_cec_soil	t_bs
Crataegus tracyi var. *coahuilensis*															
Crataegus uniflora															
Cucurbita argyrosperma				prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o		t_bs
Cucurbita argyrosperma subsp. *sororia*				prec_11		ref_depth		t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Cucurbita cordata	prec_8				prec_12	ref_depth			t_silt	t_clay	t_ref_bulk				
Cucurbita digitata		prec_9						t_sand	t_silt	t_clay		t_oc	t_ph_h2o		
Cucurbita foetidissima						ref_depth		t_sand	t_silt	t_clay			t_ph_h2o		t_bs
Cucurbita lundelliana			prec_10				t_gravel	t_sand	t_silt	t_clay		t_oc	t_ph_h2o		t_bs
Cucurbita okeechobeensis subsp. *martinezii*						ref_depth	t_gravel			t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Cucurbita palmata	prec_8		prec_10					t_sand	t_silt				t_ph_h2o		t_bs
Cucurbita pedatifolia								t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Cucurbita pepo subsp. *fraterna*			prec_10	prec_11					t_silt	t_clay			t_ph_h2o		
Cucurbita radicans				prec_11	prec_12	ref_depth	t_gravel		t_silt			t_oc		t_cec_soil	t_bs
Diospyros conzattii	prec_8					ref_depth			t_silt	t_clay			t_ph_h2o		
Diospyros johnstoniana															
Diospyros rosei															
Gossypium aridum	prec_8	prec_9		prec_11	prec_12	ref_depth	t_gravel		t_silt	t_clay		t_oc	t_ph_h2o		t_bs
Gossypium barbadense								t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o		t_bs
Gossypium gossypioides									t_silt			t_oc		t_cec_soil	
Gossypium hirsutum					prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc		t_cec_soil	
Gossypium schwendimanii															
Gossypium thurberi						ref_depth		t_sand	t_silt		t_ref_bulk	t_oc		t_cec_soil	
Helianthus annuus		prec_9				ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc	t_ph_h2o	t_cec_soil	t_bs
Helianthus californicus			prec_10							t_clay				t_cec_soil	
Helianthus ciliaris	prec_8			prec_11		ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk				
Helianthus gracilentus															
Helianthus hirsutus															
Helianthus laciniatus			prec_10		prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc		t_cec_soil	t_bs
Helianthus niveus		prec_9		prec_11		ref_depth	t_gravel				t_ref_bulk	t_oc		t_cec_soil	
Helianthus niveus subsp. *niveus*															
Helianthus niveus subsp. *tephrodes*															
Hylocereus ocamponis			prec_10	prec_11		ref_depth	t_gravel	t_sand	t_silt			t_oc	t_ph_h2o		
Ipomoea batatas		prec_9				ref_depth	t_gravel	t_sand	t_silt			t_oc	t_ph_h2o		
Ipomoea leucantha							t_gravel	t_sand		t_clay		t_oc	t_ph_h2o		t_bs
Ipomoea tabascana															
Ipomoea tiliacea						ref_depth	t_gravel			t_clay	t_ref_bulk	t_oc		t_cec_soil	t_bs
Ipomoea trifida			prec_10				t_gravel	t_sand	t_silt		t_ref_bulk	t_oc	t_ph_h2o		
Ipomoea triloba								t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Jacaratia dolichaula							t_gravel	t_sand	t_silt			t_oc			t_bs
Jacaratia mexicana		prec_9				ref_depth	t_gravel	t_sand	t_silt						
Jarilla caudata	prec_8	prec_9					t_gravel			t_clay			t_ph_h2o		
Jarilla heterophylla		prec_9			prec_12	ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc		t_cec_soil	t_bs
Jatropha andrieuxii				prec_11	prec_12		t_gravel	t_sand							
Jatropha bartlettii															
Jatropha mcvaughii				prec_11		ref_depth			t_silt						t_bs
Jatropha pseudocurcas															

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Jatropha rufescens															
Leucaena confertiflora					prec_12				t_silt			t_oc	t_ph_h2o	t_cec_soil	
Leucaena diversifolia		prec_9				ref_depth			t_silt		t_ref_bulk	t_oc		t_cec_soil	
Leucaena esculenta	prec_8					ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Leucaena lanceolata			prec_10	prec_11	prec_12	ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Leucaena leucocephala	prec_8					ref_depth		t_sand	t_silt	t_clay	t_ref_bulk	t_oc		t_cec_soil	
Manihot aesculifolia			prec_10	prec_11			t_gravel		t_silt		t_ref_bulk	t_oc			t_bs
Manihot angustiloba					prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o		t_bs
Manihot auriculata															
Manihot caudata			prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Manihot chlorosticta				prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Manihot crassisepala				prec_11		ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc	t_ph_h2o		
Manihot davisiae	prec_8			prec_11				t_sand	t_silt				t_ph_h2o		t_bs
Manihot foetida				prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc		t_cec_soil	t_bs
Manihot michaelis				prec_11		ref_depth	t_gravel		t_silt	t_clay			t_ph_h2o	t_cec_soil	
Manihot oaxacana						ref_depth	t_gravel		t_silt						
Manihot obovata															
Manihot pauciflora		prec_9				ref_depth		t_sand				t_oc			
Manihot pringlei						ref_depth	t_gravel				t_ref_bulk			t_cec_soil	t_bs
Manihot rhomboidea	prec_8		prec_10			ref_depth	t_gravel		t_silt	t_clay			t_ph_h2o	t_cec_soil	t_bs
Manihot rhomboidea subsp. *microcarpa*		prec_9	prec_10	prec_11			t_gravel	t_sand	t_silt				t_ph_h2o	t_cec_soil	
Manihot rubricaulis			prec_10	prec_11	prec_12	ref_depth	t_gravel			t_clay	t_ref_bulk	t_oc		t_cec_soil	t_bs
Manihot rubricaulis subsp. *isoloba*			prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk			t_cec_soil	t_bs
Manihot rubricaulis subsp. *rubricaulis*															
Manihot subspicata			prec_10	prec_11		ref_depth	t_gravel				t_ref_bulk	t_oc		t_cec_soil	
Manihot tomatophylla					prec_12	ref_depth		t_sand				t_oc	t_ph_h2o		
Manihot walkerae		prec_9			prec_12		t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Manilkara chicle						ref_depth					t_ref_bulk			t_cec_soil	t_bs
Manilkara zapota			prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o		t_bs
Opuntia atropes			prec_10		prec_12	ref_depth		t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Opuntia crassa															
Opuntia deamii															
Opuntia eichlamii															
Opuntia ficus-indica						ref_depth	t_gravel		t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o		t_bs
Opuntia hyptiacantha							t_gravel	t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**prec_8**	**prec_9**	**prec_10**	**prec_11**	**prec_12**	**ref_depth**	**t_gravel**	**t_sand**	**t_silt**	**t_clay**	**t_ref_bulk**	**t_oc**	**t_ph_h2o**	**t_cec_soil**	**t_bs**
Opuntia lasiacantha									t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Opuntia spinulifera						ref_depth	t_gravel						t_ph_h2o		
Opuntia streptacantha			prec_10			ref_depth		t_sand		t_clay		t_oc	t_ph_h2o		t_bs
Opuntia undulata		prec_9		prec_11					t_silt	t_clay					t_bs
Opuntia velutina						ref_depth	t_gravel		t_silt	t_clay				t_cec_soil	
Opuntia wilcoxii				prec_11	prec_12	ref_depth				t_clay	t_ref_bulk			t_cec_soil	
Pachyrhizus erosus			prec_10						t_silt		t_ref_bulk			t_cec_soil	t_bs
Pachyrhizus ferrugineus									t_silt	t_clay					t_bs
Persea americana			prec_10			ref_depth		t_sand	t_silt	t_clay	t_ref_bulk				
Persea schiedeana		prec_9				ref_depth	t_gravel		t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	
Phaseolus acutifolius				prec_11	prec_12		t_gravel	t_sand	t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Phaseolus acutifolius var. *acutifolius*	prec_8		prec_10			ref_depth	t_gravel	t_sand	t_silt		t_ref_bulk	t_oc	t_ph_h2o		t_bs
Phaseolus acutifolius var. *tenuifolius*	prec_8		prec_10	prec_11		ref_depth	t_gravel			t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Phaseolus albescens				prec_11	prec_12		t_gravel	t_sand				t_oc	t_ph_h2o	t_cec_soil	
Phaseolus angustissimus															
Phaseolus carteri		prec_9		prec_11					t_silt		t_ref_bulk				t_bs
Phaseolus coccineus							t_gravel	t_sand		t_clay	t_ref_bulk		t_ph_h2o		
Phaseolus coccineus subsp. *coccineus*					prec_12	ref_depth	t_gravel		t_silt	t_clay				t_cec_soil	
Phaseolus dumosus						ref_depth		t_sand	t_silt	t_clay		t_oc	t_ph_h2o		t_bs
Phaseolus filiformis					prec_12					t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Phaseolus maculatus subsp. *ritensis*			prec_10			ref_depth	t_gravel		t_silt			t_oc		t_cec_soil	t_bs
Phaseolus parvifolius						ref_depth		t_sand				t_oc	t_ph_h2o	t_cec_soil	
Phaseolus vulgaris				prec_11		ref_depth	t_gravel		t_silt		t_ref_bulk			t_cec_soil	
Phaseolus vulgaris var. *aborigineus*		prec_9					t_gravel		t_silt	t_clay		t_oc		t_cec_soil	
Physalis acutifolia				prec_11			t_gravel	t_sand	t_silt	t_clay	t_ref_bulk			t_cec_soil	t_bs
Physalis ampla				prec_11	prec_12		t_gravel			t_clay	t_ref_bulk			t_cec_soil	t_bs
Physalis angulata				prec_11		ref_depth		t_sand		t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Physalis crassifolia			prec_10			ref_depth			t_silt					t_cec_soil	
Physalis lagascae	prec_8	prec_9				ref_depth					t_ref_bulk	t_oc	t_ph_h2o		t_bs
Physalis microcarpa															
Physalis philadelphica		prec_9				ref_depth		t_sand	t_silt	t_clay	t_ref_bulk	t_oc		t_cec_soil	t_bs
Physalis sulphurea			prec_10	prec_11		ref_depth			t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Pinus ayacahuite				prec_11		ref_depth		t_sand	t_silt		t_ref_bulk			t_cec_soil	t_bs

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Pinus cembroides				prec_11		ref_depth			t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	
Pinus maximartinezii															
Pinus monophylla	prec_8		prec_10						t_silt			t_oc			
Pinus quadrifolia															
Pithecellobium dulce			prec_10			ref_depth	t_gravel		t_silt	t_clay				t_cec_soil	t_bs
Porophyllum gracile					prec_12			t_sand	t_silt		t_ref_bulk			t_cec_soil	t_bs
Porophyllum linaria						ref_depth					t_ref_bulk	t_oc	t_ph_h2o		t_bs
Porophyllum ruderale						ref_depth	t_gravel	t_sand	t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	
Porophyllum scoparium					prec_12			t_sand		t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Porophyllum warnockii															
Portulaca halimoides								t_sand	t_silt				t_ph_h2o		
Portulaca umbraticola	prec_8	prec_9	prec_10								t_ref_bulk	t_oc	t_ph_h2o		t_bs
Pouteria belizensis															
Pouteria campechiana	prec_8		prec_10			ref_depth	t_gravel		t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	
Pouteria durlandii				prec_11			t_gravel					t_oc	t_ph_h2o	t_cec_soil	
Pouteria glomerata	prec_8	prec_9	prec_10						t_silt			t_oc		t_cec_soil	t_bs
Pouteria reticulata		prec_9				ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk				
Pouteria rhynchocarpa															
Pouteria sapota						ref_depth		t_sand		t_clay	t_ref_bulk	t_oc		t_cec_soil	t_bs
Pouteria torta															
Psidium friedrichsthalianum															
Psidium guajava						ref_depth			t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o		t_bs
Psidium guineense						ref_depth		t_sand	t_silt	t_clay			t_ph_h2o		t_bs
Psidium oligospermum	prec_8	prec_9	prec_10		prec_12		t_gravel		t_silt	t_clay		t_oc		t_cec_soil	t_bs
Psidium salutare															
Salvia axillaris						ref_depth	t_gravel	t_sand		t_clay		t_oc			t_bs
Salvia candicans									t_silt					t_cec_soil	
Salvia carnea	prec_8			prec_11		ref_depth	t_gravel	t_sand			t_ref_bulk				
Salvia cinnabarina				prec_11		ref_depth		t_sand	t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	
Salvia coccinea			prec_10			ref_depth	t_gravel	t_sand		t_clay			t_ph_h2o	t_cec_soil	t_bs
Salvia columbariae			prec_10		prec_12		t_gravel	t_sand	t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Salvia elegans	prec_8		prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Salvia fluviatilis						ref_depth			t_silt						
Salvia helianthemifolia	prec_8					ref_depth			t_silt		t_ref_bulk			t_cec_soil	
Salvia hispanica			prec_10	prec_11		ref_depth	t_gravel				t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Salvia laevis	prec_8		prec_10		prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay		t_oc	t_ph_h2o		
Salvia lasiantha					prec_12			t_sand	t_silt			t_oc	t_ph_h2o	t_cec_soil	
Salvia lasiocephala					prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o		t_bs
Salvia leucantha	prec_8		prec_10	prec_11			t_gravel		t_silt	t_clay		t_oc	t_ph_h2o	t_cec_soil	

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Salvia longispicata						ref_depth			t_silt	t_clay			t_ph_h2o		t_bs
Salvia longistyla					prec_12								t_ph_h2o	t_cec_soil	
Salvia mexicana						ref_depth		t_sand	t_silt		t_ref_bulk	t_oc	t_ph_h2o		t_bs
Salvia microphylla		prec_9				ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Salvia misella						ref_depth	t_gravel	t_sand	t_silt	t_clay				t_cec_soil	t_bs
Salvia mocinoi		prec_9				ref_depth		t_sand					t_ph_h2o		t_bs
Salvia oaxacana							t_gravel		t_silt			t_oc			
Salvia occidentalis					prec_12					t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Salvia patens	prec_8			prec_11			t_gravel	t_sand		t_clay				t_cec_soil	
Salvia polystachia							t_gravel			t_clay	t_ref_bulk		t_ph_h2o		t_bs
Salvia prunelloides				prec_11	prec_12	ref_depth	t_gravel			t_clay	t_ref_bulk	t_oc	t_ph_h2o		
Salvia purpurea					prec_12	ref_depth		t_sand	t_silt			t_oc	t_ph_h2o		t_bs
Salvia recurva				prec_11	prec_12	ref_depth			t_silt			t_oc			t_bs
Salvia regla			prec_10		prec_12	ref_depth	t_gravel				t_ref_bulk	t_oc	t_ph_h2o		t_bs
Salvia sanctae-luciae				prec_11		ref_depth							t_ph_h2o	t_cec_soil	
Salvia setulosa			prec_10	prec_11					t_silt		t_ref_bulk	t_oc	t_ph_h2o		
Salvia splendens															
Salvia stricta															
Salvia thyrsiflora		prec_9	prec_10				t_gravel		t_silt		t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Salvia tiliifolia	prec_8					ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk			t_cec_soil	t_bs
Sechium chinantlense						ref_depth					t_ref_bulk				t_bs
Sechium compositum							t_gravel	t_sand		t_clay	t_ref_bulk		t_ph_h2o		t_bs
Sechium edule subsp. *sylvestre*						ref_depth		t_sand	t_silt	t_clay		t_oc			
Sechium hintonii	prec_8	prec_9						t_sand					t_ph_h2o		t_bs
Simmondsia chinensis	prec_8		prec_10		prec_12	ref_depth		t_sand			t_ref_bulk			t_cec_soil	
Solanum bulbocastanum							t_gravel	t_sand			t_ref_bulk	t_oc		t_cec_soil	
Solanum cardiophyllum						ref_depth	t_gravel	t_sand		t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Solanum clarum															
Solanum demissum	prec_8		prec_10		prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			
Solanum ehrenbergii			prec_10		prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	
Solanum guerreroense															
Solanum hintonii		prec_9							t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Solanum hjertingii					prec_12	ref_depth	t_gravel		t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Solanum hougasii	prec_8		prec_10		prec_12	ref_depth	t_gravel		t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	
Solanum iopetalum	prec_8	prec_9			prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Solanum morelliforme	prec_8	prec_9					t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc		t_cec_soil	
Solanum oxycarpum							t_gravel	t_sand		t_clay					t_bs
Solanum pinnatisectum					prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay			t_ph_h2o	t_cec_soil	t_bs

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Solanum polyadenium						ref_depth			t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Solanum schenckii						ref_depth						t_oc			t_bs
Solanum stenophyllidium			prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Solanum stoloniferum				prec_11		ref_depth	t_gravel			t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Solanum tarnii								t_sand				t_oc	t_ph_h2o		t_bs
Solanum trifidum	prec_8			prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay					t_bs
Solanum verrucosum	prec_8			prec_11		ref_depth	t_gravel		t_silt	t_clay	t_ref_bulk				t_bs
Spondias mombin			prec_10			ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc		t_cec_soil	
Spondias purpurea							t_gravel	t_sand			t_ref_bulk	t_oc	t_ph_h2o		t_bs
Stenocereus alamosensis					prec_12	ref_depth		t_sand		t_clay		t_oc		t_cec_soil	
Stenocereus beneckei			prec_10	prec_11							t_ref_bulk				
Stenocereus chrysocarpus			prec_10	prec_11		ref_depth	t_gravel	t_sand			t_ref_bulk	t_oc		t_cec_soil	
Stenocereus eichlamii															
Stenocereus eruca		prec_9							t_silt	t_clay				t_cec_soil	
Stenocereus fricii							t_gravel								
Stenocereus griseus				prec_11			t_gravel	t_sand		t_clay	t_ref_bulk	t_oc			t_bs
Stenocereus gummosus				prec_11				t_sand			t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Stenocereus kerberi			prec_10	prec_11	prec_12	ref_depth	t_gravel					t_oc	t_ph_h2o		
Stenocereus martinezii															
Stenocereus montanus			prec_10	prec_11		ref_depth		t_sand			t_ref_bulk			t_cec_soil	
Stenocereus pruinosus						ref_depth	t_gravel		t_silt	t_clay		t_oc	t_ph_h2o		t_bs
Stenocereus queretaroensis	prec_8		prec_10	prec_11	prec_12			t_sand	t_silt		t_ref_bulk	t_oc		t_cec_soil	t_bs
Stenocereus quevedonis	prec_8	prec_9		prec_11	prec_12		t_gravel		t_silt	t_clay			t_ph_h2o		t_bs
Stenocereus standleyi		prec_9		prec_11	prec_12		t_gravel	t_sand	t_silt				t_ph_h2o		
Stenocereus stellatus							t_gravel	t_sand	t_silt			t_oc	t_ph_h2o		t_bs
Stenocereus thurberi						ref_depth	t_gravel		t_silt					t_cec_soil	t_bs
Stenocereus thurberi subsp. *littoralis*															
Stenocereus thurberi subsp. *thurberi*															
Stenocereus treleasei	prec_8	prec_9		prec_11			t_gravel		t_silt	t_clay					
Tagetes erecta				prec_11			t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Tagetes filifolia		prec_9				ref_depth		t_sand		t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Tagetes foetidissima	prec_8	prec_9				ref_depth		t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Tagetes hartwegii															
Tagetes lucida							t_gravel	t_sand			t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	
Tagetes micrantha					prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o	t_cec_soil	t_bs
Tagetes pringlei		prec_9			prec_12	ref_depth		t_sand	t_silt	t_clay	t_ref_bulk		t_ph_h2o		t_bs

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	prec_8	prec_9	prec_10	prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt	t_clay	t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Tagetes stenophylla				prec_11	prec_12			t_sand	t_silt			t_oc		t_cec_soil	t_bs
Tagetes subulata			prec_10	prec_11	prec_12	ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o	t_cec_soil	t_bs
Theobroma cacao						ref_depth	t_gravel		t_silt		t_ref_bulk	t_oc	t_ph_h2o		t_bs
Tripsacum andersonii															
Tripsacum bravum															
Tripsacum dactyloides var. *dactyloides*															
Tripsacum dactyloides var. *hispidum*			prec_10	prec_11	prec_12		t_gravel	t_sand	t_silt			t_oc	t_ph_h2o	t_cec_soil	t_bs
Tripsacum dactyloides var. *mexicanum*		prec_9				ref_depth			t_silt	t_clay	t_ref_bulk	t_oc			
Tripsacum intermedium											t_ref_bulk			t_cec_soil	
Tripsacum jalapense															
Tripsacum lanceolatum			prec_10		prec_12	ref_depth		t_sand	t_silt	t_clay	t_ref_bulk	t_oc			t_bs
Tripsacum latifolium															
Tripsacum laxum								t_sand	t_silt			t_oc	t_ph_h2o	t_cec_soil	t_bs
Tripsacum maizar					prec_12	ref_depth	t_gravel					t_oc		t_cec_soil	t_bs
Tripsacum manisuroides															
Tripsacum pilosum	prec_8		prec_10	prec_11	prec_12			t_sand		t_clay	t_ref_bulk				t_bs
Tripsacum pilosum var. *guatemalense*															
Tripsacum zopilotense	prec_8			prec_11	prec_12	ref_depth	t_gravel	t_sand	t_silt				t_ph_h2o		t_bs
Vanilla planifolia				prec_11		ref_depth	t_gravel	t_sand						t_cec_soil	t_bs
Vanilla pompona	prec_8					ref_depth		t_sand		t_clay		t_oc		t_cec_soil	t_bs
Zea diploperennis							t_gravel		t_silt			t_oc			
Zea luxurians															
Zea mays subsp. *mexicana*						ref_depth		t_sand	t_silt			t_oc	t_ph_h2o	t_cec_soil	t_bs
Zea mays subsp. *parviglumis*		prec_9		prec_11	prec_12	ref_depth		t_sand	t_silt	t_clay		t_oc		t_cec_soil	
Zea perennis				prec_11		ref_depth	t_gravel	t_sand	t_silt		t_ref_bulk		t_ph_h2o		t_bs
Total	48	48	61	74	67	168	137	131	171	123	133	129	128	129	143

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Agave aktites								0
Agave angustifolia		t_caco3	t_caso4	t_esp		alt	slope	24
Agave angustifolia var. *deweyana*								0
Agave atrovirens			t_caso4	t_esp		alt	slope	14
Agave congesta			t_caso4			alt	slope	10
Agave datylio						alt		15
Agave fourcroydes				t_esp		alt	slope	17
Agave hiemiflora			t_caso4	t_esp		alt	slope	15
Agave hurteri		t_caco3				alt	slope	11
Agave karwinskii		t_caco3				alt	slope	12
Agave kewensis								0
Agave macroacantha				t_esp		alt	slope	11
Agave macroculmis	t_teb	t_caco3	t_caso4			alt	slope	17
Agave mapisaga				t_esp		alt	slope	14
Agave rhodacantha				t_esp	t_ece	alt	slope	16
Agave seemanniana			t_caso4			alt	slope	13
Agave sisalana			t_caso4	t_esp		alt	slope	15
Agave stringens								0
Agave tequilana	t_teb					alt	slope	12
Amaranthus australis	t_teb		t_caso4	t_esp		alt		15
Amaranthus blitoides	t_teb		t_caso4	t_esp		alt	slope	17
Amaranthus caudatus	t_teb		t_caso4	t_esp	t_ece	alt	slope	18
Amaranthus crassipes								0
Amaranthus cruentus	t_teb		t_caso4	t_esp		alt	slope	19
Amaranthus dubius		t_caco3	t_caso4	t_esp	t_ece	alt	slope	21
Amaranthus fimbriatus	t_teb			t_esp		alt	slope	23
Amaranthus greggii				t_esp		alt	slope	23
Amaranthus hybridus	t_teb	t_caco3	t_caso4	t_esp		alt	slope	20
Amaranthus hypochondriacus			t_caso4	t_esp		alt	slope	16
Amaranthus palmeri		t_caco3	t_caso4	t_esp	t_ece	alt	slope	31
Amaranthus polygonoides		t_caco3		t_esp		alt	slope	23
Amaranthus powellii	t_teb	t_caco3		t_esp	t_ece	alt	slope	24
Amaranthus scariosus			t_caso4	t_esp		alt	slope	22
Amaranthus spinosus	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	23
Amaranthus tamaulipensis								0
Amaranthus torreyi		t_caco3		t_esp	t_ece	alt	slope	25

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Annona cherimola			t_caso4		t_ece	alt	slope	17
Annona glabra		t_caco3	t_caso4	t_esp		alt	slope	24
Annona globiflora	t_teb	t_caco3	t_caso4		t_ece	alt	slope	24
Annona liebmanniana						alt	slope	17
Annona longiflora	t_teb		t_caso4	t_esp		alt	slope	23
Annona longipes								0
Annona macroprophyllata	t_teb		t_caso4	t_esp		alt	slope	17
Annona muricata					t_ece	alt	slope	19
Annona palmeri								0
Annona purpurea	t_teb		t_caso4	t_esp		alt	slope	22
Annona reticulata	t_teb	t_caco3		t_esp	t_ece	alt	slope	23
Annona squamosa	t_teb			t_esp	t_ece	alt	slope	23
Bixa orellana		t_caco3	t_caso4	t_esp	t_ece	alt	slope	20
Byrsonima crassifolia	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	21
Capsicum annuum var. *glabriusculum*		t_caco3	t_caso4	t_esp	t_ece	alt	slope	23
Capsicum frutescens		t_caco3	t_caso4		t_ece	alt	slope	22
Carica papaya		t_caco3	t_caso4	t_esp	t_ece	alt	slope	22
Carya illinoinensis		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Carya myristiciformis		t_caco3	t_caso4	t_esp	t_ece	alt	slope	20
Carya ovata		t_caco3	t_caso4	t_esp	t_ece	alt	slope	22
Carya palmeri			t_caso4	t_esp	t_ece	alt	slope	19
Crataegus mexicana		t_caco3	t_caso4	t_esp		alt	slope	21
Crataegus tracyi var. *coahuilensis*								0
Crataegus uniflora								0
Cucurbita argyrosperma		t_caco3	t_caso4	t_esp	t_ece	alt	slope	27
Cucurbita argyrosperma subsp. *sororia*		t_caco3	t_caso4		t_ece	alt	slope	24
Cucurbita cordata		t_caco3	t_caso4			alt	slope	25
Cucurbita digitata	t_teb	t_caco3	t_caso4			alt	slope	21
Cucurbita foetidissima	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Cucurbita lundelliana	t_teb	t_caco3		t_esp		alt	slope	24
Cucurbita okeechobeensis subsp. *martinezii*				t_esp	t_ece	alt	slope	22
Cucurbita palmata			t_caso4		t_ece	alt	slope	19
Cucurbita pedatifolia		t_caco3			t_ece	alt	slope	17

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Cucurbita pepo subsp. *fraterna*	t_teb	t_caco3			t_ece	alt	slope	23
Cucurbita radicans		t_caco3	t_caso4	t_esp	t_ece	alt	slope	24
Diospyros conzattii			t_caso4			alt	slope	17
Diospyros johnstoniana								0
Diospyros rosei								0
Gossypium aridum	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	28
Gossypium barbadense	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	22
Gossypium gossypioides	t_teb		t_caso4		t_ece	alt	slope	18
Gossypium hirsutum	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Gossypium schwendimanii								0
Gossypium thurberi	t_teb	t_caco3	t_caso4		t_ece	alt	slope	23
Helianthus annuus	t_teb		t_caso4	t_esp	t_ece	alt	slope	26
Helianthus californicus	t_teb		t_caso4		t_ece	alt	slope	12
Helianthus ciliaris			t_caso4	t_esp	t_ece	alt	slope	20
Helianthus gracilentus								0
Helianthus hirsutus								0
Helianthus laciniatus	t_teb				t_ece	alt	slope	25
Helianthus niveus		t_caco3	t_caso4		t_ece	alt	slope	20
Helianthus niveus subsp. *niveus*								0
Helianthus niveus subsp. *tephrodes*								0
Hylocereus ocamponis			t_caso4			alt	slope	23
Ipomoea batatas		t_caco3		t_esp	t_ece	alt	slope	22
Ipomoea leucantha		t_caco3	t_caso4	t_esp	t_ece	alt	slope	20
Ipomoea tabascana								0
Ipomoea tiliacea	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	24
Ipomoea trifida	t_teb	t_caco3	t_caso4			alt	slope	24
Ipomoea triloba	t_teb		t_caso4	t_esp		alt	slope	22
Jacaratia dolichaula	t_teb	t_caco3			t_ece	alt	slope	19
Jacaratia mexicana		t_caco3		t_esp	t_ece	alt	slope	22
Jarilla caudata	t_teb					alt	slope	20
Jarilla heterophylla		t_caco3	t_caso4	t_esp	t_ece	alt	slope	24
Jatropha andrieuxii			t_caso4		t_ece	alt	slope	18
Jatropha bartlettii								0
Jatropha mcvaughii					t_ece	alt		18
Jatropha pseudocurcas								0

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Jatropha rufescens								0
Leucaena confertiflora				t_esp	t_ece	alt	slope	15
Leucaena diversifolia	t_teb	t_caco3		t_esp		alt	slope	19
Leucaena esculenta		t_caco3				alt	slope	21
Leucaena lanceolata		t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Leucaena leucocephala	t_teb		t_caso4			alt	slope	22
Manihot aesculifolia	t_teb	t_caco3	t_caso4		t_ece	alt	slope	24
Manihot angustiloba		t_caco3	t_caso4	t_esp		alt	slope	27
Manihot auriculata								0
Manihot caudata		t_caco3	t_caso4	t_esp	t_ece	alt	slope	30
Manihot chlorosticta		t_caco3		t_esp		alt	slope	28
Manihot crassisepala	t_teb			t_esp	t_ece	alt	slope	21
Manihot davisiae		t_caco3				alt	slope	16
Manihot foetida	t_teb		t_caso4	t_esp		alt	slope	30
Manihot michaelis	t_teb					alt	slope	21
Manihot oaxacana	t_teb	t_caco3	t_caso4	t_esp		alt	slope	17
Manihot obovata								0
Manihot pauciflora		t_caco3	t_caso4	t_esp		alt	slope	15
Manihot pringlei		t_caco3		t_esp	t_ece	alt	slope	18
Manihot rhomboidea	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Manihot rhomboidea subsp. *microcarpa*		t_caco3	t_caso4	t_esp		alt	slope	23
Manihot rubricaulis	t_teb		t_caso4	t_esp	t_ece	alt	slope	28
Manihot rubricaulis subsp. *isoloba*			t_caso4		t_ece	alt	slope	21
Manihot rubricaulis subsp. *rubricaulis*								0
Manihot subspicata	t_teb		t_caso4	t_esp	t_ece	alt	slope	26
Manihot tomatophylla		t_caco3	t_caso4		t_ece	alt	slope	21
Manihot walkerae	t_teb				t_ece	alt	slope	19
Manilkara chicle	t_teb		t_caso4	t_esp		alt	slope	22
Manilkara zapota	t_teb	t_caco3	t_caso4	t_esp		alt	slope	28
Opuntia atropes	t_teb			t_esp	t_ece	alt	slope	26
Opuntia crassa								0
Opuntia deamii								0
Opuntia eichlamii								0
Opuntia ficus-indica	t_teb		t_caso4	t_esp	t_ece	alt	slope	24
Opuntia hyptiacantha	t_teb	t_caco3		t_esp	t_ece	alt	slope	20

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Opuntia lasiacantha	t_teb		t_caso4		t_ece	alt	slope	20
Opuntia spinulifera	t_teb	t_caco3		t_esp	t_ece	alt	slope	15
Opuntia streptacantha	t_teb		t_caso4	t_esp	t_ece	alt	slope	21
Opuntia undulata	t_teb		t_caso4	t_esp		alt	slope	20
Opuntia velutina			t_caso4	t_esp		alt	slope	17
Opuntia wilcoxii	t_teb					alt	slope	20
Pachyrhizus erosus	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	21
Pachyrhizus ferrugineus	t_teb	t_caco3	t_caso4	t_esp		alt	slope	20
Persea americana	t_teb			t_esp	t_ece	alt	slope	20
Persea schiedeana	t_teb	t_caco3	t_caso4			alt	slope	24
Phaseolus acutifolius		t_caco3		t_esp	t_ece	alt	slope	24
Phaseolus acutifolius var. *acutifolius*	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Phaseolus acutifolius var. *tenuifolius*		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Phaseolus albescens	t_teb				t_ece	alt	slope	22
Phaseolus angustissimus								0
Phaseolus carteri	t_teb		t_caso4	t_esp		alt	slope	17
Phaseolus coccineus		t_caco3	t_caso4	t_esp	t_ece	alt	slope	21
Phaseolus coccineus subsp. *coccineus*	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	22
Phaseolus dumosus					t_ece	alt	slope	19
Phaseolus filiformis	t_teb			t_esp	t_ece	alt	slope	27
Phaseolus maculatus subsp. *ritensis*		t_caco3		t_esp	t_ece	alt	slope	24
Phaseolus parvifolius	t_teb	t_caco3	t_caso4		t_ece	alt	slope	22
Phaseolus vulgaris	t_teb		t_caso4	t_esp	t_ece	alt	slope	20
Phaseolus vulgaris var. *aborigineus*	t_teb	t_caco3		t_esp		alt	slope	19
Physalis acutifolia	t_teb					alt	slope	18
Physalis ampla	t_teb	t_caco3	t_caso4			alt	slope	20
Physalis angulata	t_teb		t_caso4	t_esp		alt	slope	23
Physalis crassifolia	t_teb		t_caso4	t_esp		alt	slope	19
Physalis lagascae	t_teb	t_caco3	t_caso4		t_ece	alt	slope	22
Physalis microcarpa								0
Physalis philadelphica	t_teb			t_esp	t_ece	alt	slope	23
Physalis sulphurea	t_teb	t_caco3				alt	slope	25
Pinus ayacahuite	t_teb			t_esp		alt	slope	22

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Pinus cembroides	t_teb	t_caco3	t_caso4	t_esp		alt	slope	25
Pinus maximartinezii								0
Pinus monophylla			t_caso4			alt	slope	12
Pinus quadrifolia								0
Pithecellobium dulce	t_teb		t_caso4	t_esp	t_ece	alt	slope	25
Porophyllum gracile	t_teb	t_caco3				alt	slope	22
Porophyllum linaria		t_caco3	t_caso4		t_ece	alt	slope	19
Porophyllum ruderale	t_teb	t_caco3			t_ece	alt	slope	20
Porophyllum scoparium		t_caco3		t_esp		alt	slope	22
Porophyllum warnockii								0
Portulaca halimoides	t_teb					alt	slope	12
Portulaca umbraticola	t_teb	t_caco3		t_esp		alt	slope	20
Pouteria belizensis								0
Pouteria campechiana			t_caso4	t_esp		alt	slope	20
Pouteria durlandii		t_caco3	t_caso4	t_esp	t_ece	alt	slope	26
Pouteria glomerata	t_teb	t_caco3	t_caso4	t_esp		alt	slope	20
Pouteria reticulata	t_teb	t_caco3	t_caso4			alt	slope	23
Pouteria rhynchocarpa								0
Pouteria sapota	t_teb	t_caco3				alt	slope	21
Pouteria torta								0
Psidium friedrichsthalianum								0
Psidium guajava	t_teb	t_caco3	t_caso4		t_ece	alt	slope	23
Psidium guineense			t_caso4	t_esp		alt	slope	18
Psidium oligospermum	t_teb	t_caco3	t_caso4	t_esp		alt	slope	27
Psidium salutare								0
Salvia axillaris	t_teb	t_caco3	t_caso4			alt	slope	22
Salvia candicans			t_caso4	t_esp		alt	slope	9
Salvia carnea	t_teb	t_caco3	t_caso4			alt	slope	19
Salvia cinnabarina		t_caco3		t_esp		alt	slope	20
Salvia coccinea		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Salvia columbariae			t_caso4			alt	slope	22
Salvia elegans		t_caco3				alt	slope	24
Salvia fluviatilis				t_esp	t_ece	alt	slope	16
Salvia helianthemifolia		t_caco3				alt	slope	16
Salvia hispanica	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Salvia laevis				t_esp	t_ece	alt	slope	24
Salvia lasiantha			t_caso4		t_ece	alt	slope	16
Salvia lasiocephala		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Salvia leucantha	t_teb	t_caco3	t_caso4	t_esp		alt	slope	24

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Salvia longispicata		t_caco3	t_caso4			alt	slope	17
Salvia longistyla				t_esp	t_ece	alt	slope	20
Salvia mexicana			t_caso4		t_ece	alt	slope	22
Salvia microphylla	t_teb	t_caco3	t_caso4		t_ece	alt	slope	25
Salvia misella	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Salvia mocinoi			t_caso4	t_esp		alt	slope	17
Salvia oaxacana	t_teb	t_caco3		t_esp	t_ece	alt	slope	14
Salvia occidentalis	t_teb	t_caco3	t_caso4		t_ece	alt	slope	21
Salvia patens		t_caco3	t_caso4	t_esp		alt	slope	21
Salvia polystachia	t_teb	t_caco3		t_esp		alt	slope	20
Salvia prunelloides	t_teb	t_caco3	t_caso4		t_ece	alt	slope	27
Salvia purpurea	t_teb	t_caco3	t_caso4			alt	slope	20
Salvia recurva		t_caco3	t_caso4			alt	slope	20
Salvia regla			t_caso4	t_esp	t_ece	alt	slope	25
Salvia sanctae-luciae						alt		8
Salvia setulosa	t_teb		t_caso4	t_esp	t_ece	alt	slope	23
Salvia splendens								0
Salvia stricta								0
Salvia thyrsiflora		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Salvia tiliifolia	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Sechium chinantlense						alt	slope	10
Sechium compositum	t_teb	t_caco3				alt	slope	15
Sechium edule subsp. *sylvestre*		t_caco3	t_caso4	t_esp		alt	slope	16
Sechium hintonii		t_caco3				alt	slope	16
Simmondsia chinensis	t_teb	t_caco3		t_esp	t_ece	alt	slope	22
Solanum bulbocastanum		t_caco3	t_caso4		t_ece	alt	slope	20
Solanum cardiophyllum	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	28
Solanum clarum								0
Solanum demissum		t_caco3	t_caso4	t_esp	t_ece	alt	slope	25
Solanum ehrenbergii	t_teb		t_caso4	t_esp	t_ece	alt	slope	30
Solanum guerreroense								0
Solanum hintonii	t_teb		t_caso4			alt	slope	18
Solanum hjertingii	t_teb	t_caco3	t_caso4		t_ece	alt	slope	23
Solanum hougasii		t_caco3	t_caso4			alt	slope	24
Solanum iopetalum	t_teb			t_esp	t_ece	alt	slope	25
Solanum morelliforme	t_teb		t_caso4	t_esp		alt	slope	23
Solanum oxycarpum			t_caso4	t_esp	t_ece	alt	slope	17
Solanum pinnatisectum	t_teb				t_ece	alt	slope	25

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	Total
Solanum polyadenium	t_teb		t_caso4	t_esp		alt	slope	21
Solanum schenckii	t_teb			t_esp	t_ece	alt	slope	17
Solanum stenophyllidium		t_caco3	t_caso4		t_ece	alt	slope	28
Solanum stoloniferum	t_teb	t_caco3	t_caso4	t_esp		alt	slope	28
Solanum tarnii	t_teb	t_caco3			t_ece	alt	slope	17
Solanum trifidum	t_teb		t_caso4	t_esp	t_ece	alt	slope	25
Solanum verrucosum	t_teb	t_caco3	t_caso4	t_esp		alt	slope	23
Spondias mombin			t_caso4	t_esp		alt	slope	23
Spondias purpurea	t_teb		t_caso4		t_ece	alt	slope	21
Stenocereus alamosensis			t_caso4		t_ece	alt	slope	25
Stenocereus beneckei						alt	slope	16
Stenocereus chrysocarpus	t_teb		t_caso4		t_ece	alt	slope	21
Stenocereus eichlamii								0
Stenocereus eruca	t_teb	t_caco3				alt	slope	19
Stenocereus fricii				t_esp		alt		13
Stenocereus griseus	t_teb	t_caco3		t_esp		alt	slope	23
Stenocereus gummosus	t_teb			t_esp	t_ece	alt	slope	20
Stenocereus kerberi	t_teb		t_caso4			alt	slope	25
Stenocereus martinezii								0
Stenocereus montanus		t_caco3	t_caso4	t_esp	t_ece	alt	slope	23
Stenocereus pruinosus	t_teb	t_caco3			t_ece	alt	slope	21
Stenocereus queretaroensis			t_caso4		t_ece	alt	slope	27
Stenocereus quevedonis			t_caso4	t_esp	t_ece	alt	slope	26
Stenocereus standleyi		t_caco3		t_esp		alt	slope	22
Stenocereus stellatus		t_caco3		t_esp		alt	slope	19
Stenocereus thurberi	t_teb	t_caco3				alt	slope	20
Stenocereus thurberi subsp. *littoralis*								0
Stenocereus thurberi subsp. *thurberi*								0
Stenocereus treleasei						alt	slope	13
Tagetes erecta	t_teb	t_caco3		t_esp		alt	slope	20
Tagetes filifolia		t_caco3	t_caso4	t_esp		alt	slope	21
Tagetes foetidissima	t_teb		t_caso4	t_esp	t_ece	alt	slope	25
Tagetes hartwegii								0
Tagetes lucida	t_teb	t_caco3	t_caso4	t_esp	t_ece	alt	slope	22
Tagetes micrantha			t_caso4	t_esp	t_ece	alt	slope	23
Tagetes pringlei		t_caco3	t_caso4	t_esp		alt	slope	23

Supplementary Table 3.5. Selected ecogeographic variables per priority CWR taxon (continued)

CWR Taxon	**t_teb**	**t_caco3**	**t_caso4**	**t_esp**	**t_ece**	**alt**	**slope**	**Total**
Tagetes stenophylla				t_esp		alt	slope	21
Tagetes subulata	t_teb	t_caco3				alt	slope	25
Theobroma cacao	t_teb			t_esp		alt	slope	21
Tripsacum andersonii								0
Tripsacum bravum								0
Tripsacum dactyloides var. *dactyloides*								0
Tripsacum dactyloides var. *hispidum*			t_caso4			alt	slope	25
Tripsacum dactyloides var. *mexicanum*	t_teb		t_caso4		t_ece	alt	slope	22
Tripsacum intermedium			t_caso4	t_esp	t_ece	alt	slope	10
Tripsacum jalapense								0
Tripsacum lanceolatum	t_teb	t_caco3	t_caso4	t_esp		alt	slope	26
Tripsacum latifolium								0
Tripsacum laxum		t_caco3	t_caso4			alt	slope	16
Tripsacum maizar	t_teb					alt		14
Tripsacum manisuroides								0
Tripsacum pilosum	t_teb			t_esp		alt	slope	22
Tripsacum pilosum var. *guatemalense*								0
Tripsacum zopilotense						alt	slope	19
Vanilla planifolia	t_teb	t_caco3	t_caso4	t_esp		alt	slope	21
Vanilla pompona		t_caco3		t_esp	t_ece	alt	slope	21
Zea diploperennis			t_caso4			alt	slope	13
Zea luxurians								0
Zea mays subsp. *mexicana*	t_teb	t_caco3		t_esp		alt	slope	22
Zea mays subsp. *parviglumis*	t_teb					alt	slope	25
Zea perennis		t_caco3				alt	slope	20
Total	134	139	161	157	129	256	250	

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.)

	Category 0				**Category 1**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	1.825557809	Mid-low	0.412851374	Low	0	Null	0.23091687	Low
Agave atrovirens	0	Null	0.329881243	Low	0	Null	7.17841577	High
Agave congesta	0	Null	0.329881243	Low	0	Null	1.54044544	Mid-low
Agave datylio	0	Null	0.329881243	Mid-low	0	Null	3.643688272	Mid-high
Agave fourcroydes	0	Null	0.329881243	Low	0	Null	0.53680675	Mid-low
Agave hiemiflora	0	Null	0.329881243	Mid-low	0	Null	1.595425647	Mid-low
Agave hurteri	0	Null	0.329881243	Mid-low	0	Null	0.070974449	Low
Agave karwinskii	0	Null	0.329881243	Mid-low	0	Null	0.170938462	Mid-low
Agave macroacantha	0	Null	0.329881243	Low	0	Null	0.019992803	Low
Agave macroculmis	0	Null	0.329881243	Low	0	Null	0.269902835	Low
Agave rhodacantha	0	Null	0.329881243	Low	0	Null	0.447838778	Low
Agave seemanniana	0	Null	0.329881243	Low	0	Null	0.428845616	Low
Agave sisalana	0	Null	0.412851374	Low	0	Null	3.147866768	Mid-high
Agave tequilana	0	Null	0.329881243	Low	0	Null	0.3088888	Low
Amaranthus australis	0	Null	0.329881243	Low	0	Null	0.418849214	Low
Amaranthus blitoides	0	Null	0.329881243	Low	38.46153846	High	19.27506098	High
Amaranthus caudatus	0	Null	0.329881243	Low	0	Null	0.323883402	Low
Amaranthus cruentus	0	Null	0.412851374	Low	7.936507937	High	2.445119757	Mid-high
Amaranthus dubius	14.28571429	Mid-high	14.06293734	High	0	Null	0.333879803	Mid-low
Amaranthus fimbriatus	6.12244898	Mid-low	0.329881243	Mid-low	2.040816327	Low	4.641329122	High
Amaranthus greggii	21.05263158	Mid-high	0.412851374	Low	0	Null	2.584069735	Mid-high
Amaranthus hybridus	0	Null	0.329881243	Mid-low	13.08980213	High	11.01703387	High
Amaranthus hypochondriacus	0	Null	0.329881243	Low	1.063829787	Low	2.013275221	Mid-high
Amaranthus palmeri	1.442307692	Mid-low	0.329881243	Mid-low	25.96153846	High	10.99604143	High
Amaranthus polygonoides	3.225806452	Low	0.412851374	Low	3.225806452	Low	2.823983366	Mid-high
Amaranthus powellii	1.063829787	Low	0.329881243	Low	7.446808511	Mid-high	3.631692591	Mid-high
Amaranthus scariosus	2.127659574	Low	0.412851374	Mid-low	38.29787234	High	5.670958455	Mid-high
Amaranthus spinosus	0	Null	0.329881243	Low	0	Null	3.120876484	Mid-high
Amaranthus torreyi	10	Mid-high	0.329881243	Low	6	Mid-high	0.646767164	Low
Annona cherimola	0	Null	0.329881243	Low	2.941176471	Mid-low	3.803630693	Mid-high
Annona glabra	2.958579882	Mid-low	0.412851374	Low	2.366863905	Mid-low	1.365508417	Mid-low
Annona globiflora	0	Null	0.329881243	Low	2.144772118	Mid-high	0.147946739	Low
Annona liebmanniana	0	Null	0.329881243	Low	0	Null	6.512655444	High

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	Category 0				Category 1			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	0	Null	0.329881243	Low	5.797101449	Mid-high	7.576272542	High
Annona macroprophyllata	0	Null	0.329881243	Low	0	Null	11.72577872	High
Annona muricata	0.775193798	Low	0.412851374	Mid-low	19.37984496	High	15.34547563	High
Annona purpurea	0	Null	0.329881243	Low	25.92592593	High	10.3702667	High
Annona reticulata	0.197238659	Low	0.412851374	Low	1.972386588	Mid-low	1.091607021	Mid-low
Annona squamosa	0	Null	0.412851374	Low	0	Null	0.237914351	Low
Bixa orellana	0	Null	0.412851374	Low	0	Null	6.779559359	High
Byrsonima crassifolia	0	Null	0.329881243	Low	0	Null	0.182934144	Low
Capsicum annuum var. *glabriusculum*	0.766283525	Low	0.412851374	Low	0	Null	0.208924787	Low
Capsicum frutescens	0	Null	0.412851374	Mid-low	4.438642298	Mid-high	3.390779319	Mid-high
Carica papaya	0.675675676	Low	0.412851374	Mid-low	0	Null	7.419329042	High
Carya illinoinensis	0	Null	0.412851374	Mid-low	0	Null	0.052980927	Low
Carya ovata	0	Null	0.329881243	Low	0.99009901	Low	3.080890879	Mid-low
Carya palmeri	0	Null	0.412851374	Low	0	Null	4.262465512	Mid-high
Crataegus mexicana	0	Null	0.412851374	Low	0.401606426	Low	2.598064697	Mid-high
Cucurbita argyrosperma	0	Null	0.412851374	Mid-low	0	Null	0.003998561	Low
Cucurbita argyrosperma subsp. *sororia*	0	Null	0.412851374	Low	0.668151448	Low	0.103962573	Low
Cucurbita cordata	3.225806452	Mid-high	0.329881243	Mid-low	8.602150538	Mid-high	3.145867488	Mid-high
Cucurbita digitata	0	Null	0.412851374	Low	0	Null	7.362349554	Mid-high
Cucurbita foetidissima	0	Null	0.412851374	Low	3.305785124	Mid-high	5.461034028	High
Cucurbita lundelliana	0	Null	0.412851374	Low	0	Null	5.136150986	Mid-high
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	0.412851374	Mid-low	2.631578947	Mid-low	3.112879363	Mid-high
Cucurbita palmata	0	Null	0.412851374	Mid-low	0	Null	4.62733416	Mid-high
Cucurbita pedatifolia	0	Null	0.412851374	Low	9.411764706	Mid-high	13.12427526	High
Cucurbita pepo subsp. *fraterna*	0	Null	0.412851374	Mid-low	0	Null	0.192930545	Low
Cucurbita radicans	0	Null	0.329881243	Low	1.204819277	Low	3.221840138	Mid-high
Diospyros conzattii	0	Null	0.412851374	Mid-low	0	Null	11.39489784	High
Gossypium aridum	0	Null	0.412851374	Mid-low	0.952380952	Low	5.467031869	Mid-high
Gossypium barbadense	1.298701299	Low	0.412851374	Low	42.85714286	High	13.3991763	High
Gossypium gossypioides	0	Null	0.329881243	Low	0	Null	5.63297213	High

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	Category 0				**Category 1**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0.834326579	Mid-low	0.329881243	Low	3.57568534	High	12.72341957	High
Gossypium thurberi	0	Null	0.329881243	Low	0	Null	3.870606582	Mid-high
Helianthus laciniatus	0	Null	0.329881243	Low	1	Low	6.776560438	High
Helianthus niveus	5.952380952	Mid-low	0.329881243	Low	2.380952381	Low	11.33092087	High
Hylocereus ocamponis	0	Null	0.412851374	Low	6.382978723	Mid-low	16.50105962	High
Ipomoea batatas	0	Null	0.412851374	Low	3.719008264	Mid-high	20.91647007	High
Ipomoea tiliacea	0	Null	0.329881243	Mid-low	4.232804233	Mid-high	7.863169259	High
Ipomoea trifida	0.473933649	Low	0.412851374	Mid-low	6.872037915	High	8.963773042	High
Ipomoea triloba	0	Null	0.412851374	Low	1.990049751	Mid-low	7.247390939	High
Jacaratia dolichaula	0	Null	0.329881243	Mid-low	0	Null	11.49186293	High
Jacaratia mexicana	0	Null	0.329881243	Low	0	Null	0.213922988	Low
Jarilla heterophylla	0	Null	0.329881243	Low	20	High	5.048182654	Mid-high
Jatropha andrieuxii	0	Null	0.329881243	Low	5.882352941	Low	9.317645648	High
Jatropha mcvaughii	0	Null	0.329881243	Mid-low	0	Null	0.286896717	Low
Leucaena confertiflora	0	Null	0.412851374	Low	4.166666667	Low	0.890679355	Mid-low
Leucaena diversifolia	0	Null	0.329881243	Low	6.094808126	Mid-high	0.187932344	Low
Leucaena esculenta	0.819672131	Mid-low	0.329881243	Low	0.614754098	Low	11.6108201	High
Leucaena lanceolata	0.210970464	Low	0.412851374	Low	0.421940928	Low	11.20096765	High
Leucaena leucocephala	0.336700337	Low	0.329881243	Low	0.336700337	Low	1.31252749	Mid-low
Manihot aesculifolia	0	Null	0.329881243	Low	5.381165919	Mid-high	10.16634012	High
Manihot angustiloba	4	Mid-high	0.412851374	Low	0	Null	0.211923707	Low
Manihot caudata	2.678571429	Low	0.412851374	Low	0	Null	0.00099964	Low
Manihot chlorosticta	1.877934272	Mid-high	0.329881243	Low	0	Null	0.85169339	Mid-low
Manihot davisiae	0	Null	0.412851374	Low	0	Null	2.691031229	Mid-high
Manihot foetida	0	Null	0.329881243	Low	21.42857143	Mid-high	3.400775721	Mid-high
Manihot michaelis	0	Null	0.412851374	Mid-low	0	Null	0.15794314	Low
Manihot oaxacana	0	Null	0.329881243	Low	0	Null	1.800351873	Mid-low
Manihot pauciflora	0	Null	0.329881243	Low	22.03389831	High	1.93030509	Mid-low
Manihot pringlei	0	Null	0.329881243	Low	0	Null	0.026990283	Low
Manihot rhomboidea	0	Null	0.412851374	Low	0	Null	10.8311008	High
Manihot rhomboidea subsp. *microcarpa*	0	Null	0.412851374	Low	0	Null	0.166939902	Low
Manihot rubricaulis	0	Null	0.329881243	Low	1.680672269	Low	9.918429365	High

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	Category 0				**Category 1**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	0	Null	0.329881243	Low	0	Null	0.712743412	Mid-low
Manihot tomatophylla	0	Null	0.412851374	Low	0	Null	0.22991723	Low
Manilkara chicle	0	Null	0.329881243	Mid-high	0	Null	0.140949258	Mid-low
Manilkara zapota	0.223713647	Low	0.412851374	Low	2.237136465	High	1.893318405	Mid-high
Opuntia atropes	0	Null	0.412851374	Mid-low	11.53846154	Mid-high	4.767283778	High
Opuntia ficus-indica	0	Null	0.412851374	Low	0.840336134	Low	1.263545124	Mid-low
Opuntia hyptiacantha	0	Null	0.412851374	Low	8.823529412	Mid-high	4.768283418	Mid-high
Opuntia lasiacantha	0	Null	0.412851374	Mid-low	0.714285714	Low	0.662761406	Mid-low
Opuntia spinulifera	0	Null	0.412851374	Low	0	Null	0.026990283	Low
Opuntia streptacantha	0	Null	0.412851374	Mid-low	2.755905512	Mid-high	1.77536087	Mid-low
Opuntia undulata	0	Null	0.329881243	Low	0	Null	1.300531809	Mid-low
Opuntia velutina	0	Null	0.329881243	Low	7.462686567	Mid-high	7.117437722	High
Pachyrhizus erosus	0.434782609	Low	0.329881243	Low	10	High	2.027270183	Mid-low
Persea americana	0.394477318	Low	0.329881243	Low	2.366863905	Mid-high	1.063617098	Mid-low
Persea schiedeana	0	Null	0.412851374	Low	0	Null	2.535087369	Mid-high
Phaseolus acutifolius	0	Null	0.412851374	Low	12.63858093	High	14.73669479	High
Phaseolus acutifolius var. *acutifolius*	0	Null	0.412851374	Mid-low	0	Null	0.15494422	Low
Phaseolus acutifolius var. *tenuifolius*	0	Null	0.412851374	Low	2.912621359	Mid-low	6.950497821	High
Phaseolus coccineus	0.054347826	Low	0.412851374	Low	1.467391304	Mid-high	5.778919589	Mid-high
Phaseolus coccineus subsp. *coccineus*	0	Null	0.329881243	Low	1.829268293	Mid-low	5.570994442	Mid-high
Phaseolus dumosus	0	Null	0.412851374	Low	5.405405405	Mid-low	0.339877644	Low
Phaseolus filiformis	6.339468303	High	0.412851374	Low	0	Null	2.671038426	Mid-high
Phaseolus maculatus subsp. *ritensis*	0	Null	0.329881243	Low	0	Null	0.170938462	Low
Phaseolus parvifolius	1.204819277	Low	0.412851374	Mid-low	0	Null	0.141948898	Low
Phaseolus vulgaris	0.281888654	Low	0.329881243	Low	0.528541226	Mid-low	0.15394458	Low
Physalis acutifolia	0	Null	0.329881243	Low	1.123595506	Low	2.445119757	Mid-low
Physalis ampla	0	Null	0.329881243	Mid-low	0	Null	2.551081611	Mid-high
Physalis angulata	0	Null	0.412851374	Mid-low	0	Null	0.69474989	Mid-low
Physalis crassifolia	0	Null	0.329881243	Low	0	Null	2.096245352	Mid-high

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	Category 0				Category 1			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	0	Null	0.412851374	Low	0	Null	11.96669199	High
Physalis philadelphica	0.275482094	Low	0.329881243	Low	11.29476584	High	5.489023951	High
Physalis sulphurea	0	Null	0.412851374	Low	0	Null	14.27086249	High
Pinus ayacahuite	0	Null	0.329881243	Low	4.255319149	Mid-high	1.54144508	Mid-low
Pinus cembroides	0	Null	0.412851374	Low	0	Null	0.424847055	Low
Pithecellobium dulce	0.744985673	Mid-low	0.329881243	Low	0.573065903	Mid-low	3.786636811	Mid-high
Porophyllum gracile	2.739726027	Mid-low	0.329881243	Low	0	Null	0.680754928	Mid-low
Porophyllum linaria	0	Null	0.412851374	Low	0	Null	0.884681515	Mid-low
Porophyllum ruderale	0.483091787	Low	0.412851374	Mid-low	7.729468599	Mid-high	5.699948019	Mid-high
Porophyllum scoparium	0	Null	0.412851374	Low	0	Null	0.481826542	Mid-low
Pouteria campechiana	0.628930818	Low	0.412851374	Mid-low	0	Null	4.983206046	Mid-high
Pouteria durlandii	0	Null	0.412851374	Low	18.42105263	Mid-high	6.765564397	High
Pouteria reticulata	0	Null	0.329881243	Mid-low	0	Null	7.215402455	High
Pouteria sapota	0	Null	0.329881243	Low	0	Null	0.274901036	Low
Psidium guajava	0.348432056	Low	0.412851374	Low	7.665505226	Mid-high	0.575792715	Low
Psidium guineense	0	Null	0.412851374	Low	0	Null	3.78063897	Mid-high
Psidium oligospermum	0.571428571	Low	0.329881243	Low	4	Mid-high	3.992562677	Mid-high
Salvia axillaris	0	Null	0.329881243	Low	0	Null	0.110960054	Low
Salvia carnea	0	Null	0.329881243	Mid-low	0	Null	0.213922988	Low
Salvia cinnabarina	0	Null	0.412851374	Mid-low	0	Null	6.951497461	High
Salvia coccinea	0	Null	0.412851374	Mid-low	14.75	High	6.63960974	High
Salvia columbariae	0	Null	0.412851374	Mid-low	0	Null	0.072973729	Low
Salvia elegans	0	Null	0.329881243	Mid-low	0	Null	1.127594066	Mid-low
Salvia fluviatilis	0	Null	0.329881243	Low	10	Low	5.355072174	Mid-high
Salvia helianthemifolia	0	Null	0.329881243	Mid-low	0	Null	0.159942421	Low
Salvia hispanica	0	Null	0.412851374	Low	0	Null	0.636770763	Low
Salvia laevis	0	Null	0.412851374	Mid-low	0	Null	0.226918309	Mid-low
Salvia lasiantha	0	Null	0.412851374	Low	0	Null	3.002918949	Mid-high
Salvia lasiocephala	0	Null	0.412851374	Low	13.20754717	High	9.482586269	High
Salvia longispicata	0	Null	0.412851374	Mid-low	3.571428571	Low	4.54936223	Mid-high
Salvia mexicana	0	Null	0.412851374	Low	0.540540541	Low	0.867687632	Mid-low
Salvia microphylla	0.182481752	Low	0.412851374	Mid-low	0	Null	0.142948539	Low
Salvia misella	1.801801802	Mid-low	0.329881243	Low	0	Null	13.19125115	High

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	Category 0				Category 1			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	0	Null	0.412851374	Low	0	Null	0.647766804	Mid-low
Salvia occidentalis	0	Null	0.412851374	Low	3.381642512	Mid-high	0.377863969	Low
Salvia patens	0	Null	0.329881243	Low	0	Null	0.148946379	Low
Salvia polystachia	0	Null	0.412851374	Low	48.14814815	High	11.76976289	High
Salvia prunelloides	0	Null	0.412851374	Low	3.773584906	Low	5.344076133	High
Salvia purpurea	0	Null	0.412851374	Mid-low	0.997506234	Mid-low	6.86352913	High
Salvia regla	0	Null	0.412851374	Low	0	Null	0.243912192	Low
Salvia sanctae-luciae	0	Null	0.412851374	Mid-low	0	Null	5.098164661	Mid-high
Salvia setulosa	0	Null	0.412851374	Mid-low	0	Null	0.00099964	Low
Salvia thyrsiflora	0	Null	0.412851374	Low	23.66412214	Mid-high	4.679315446	Mid-high
Salvia tiliifolia	0	Null	0.329881243	Low	0	Null	3.279819265	Mid-high
Sechium chinantlense	0	Null	0.329881243	Low	0	Null	0.243912192	Low
Sechium compositum	0	Null	0.412851374	Low	0	Null	5.704946219	High
Sechium edule subsp. *sylvestre*	0	Null	0.329881243	Mid-low	3.225806452	Low	2.121236355	Mid-high
Sechium hintonii	0	Null	0.412851374	Low	15.38461538	Low	2.905953857	Mid-high
Simmondsia chinensis	3.278688525	Mid-low	0.329881243	Mid-low	0	Null	0.092966532	Low
Solanum bulbocastanum	0.22675737	Low	0.329881243	Low	0	Null	2.887960334	Mid-high
Solanum cardiophyllum	0	Null	0.412851374	Low	5.833333333	Mid-high	12.55548003	High
Solanum demissum	0	Null	0.329881243	Low	0.58910162	Low	0.121956096	Low
Solanum ehrenbergii	0	Null	0.412851374	Low	0	Null	3.55272102	Mid-high
Solanum hjertingii	0	Null	0.412851374	Low	2.5	Mid-low	2.709024751	Mid-high
Solanum hougasii	0	Null	0.412851374	Mid-low	0	Null	2.404134512	Mid-high
Solanum iopetalum	0	Null	0.329881243	Low	0.264550265	Low	7.726218561	High
Solanum morelliforme	0	Null	0.329881243	Low	0.8	Low	0.243912192	Low
Solanum oxycarpum	0	Null	0.329881243	Low	1.234567901	Low	4.034547563	Mid-high
Solanum pinnatisectum	1.869158879	Mid-low	0.412851374	Low	0	Null	0.734735495	Mid-low
Solanum polyadenium	0	Null	0.412851374	Mid-low	0	Null	0.070974449	Low
Solanum schenckii	0	Null	0.329881243	Mid-low	0	Null	0.011995682	Low
Solanum stenophyllidium	0	Null	0.412851374	Mid-low	2.469135802	Mid-low	4.107521292	Mid-high
Solanum stoloniferum	0.082781457	Low	0.412851374	Low	3.476821192	Mid-high	1.490463433	Mid-low
Solanum tarnii	0	Null	0.412851374	Mid-low	0	Null	0.638770043	Mid-low
Solanum trifidum	0	Null	0.329881243	Low	0	Null	0.059978408	Low
Solanum verrucosum	0	Null	0.329881243	Mid-low	1.915708812	Mid-high	8.116078212	High

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	Category 0				**Category 1**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	0.4784689	Low	0.329881243	Low	0	Null	1.014634731	Mid-low
Spondias purpurea	0	Null	0.412851374	Mid-low	0	Null	0.00299892	Low
Stenocereus alamosensis	4.761904762	Mid-low	0.329881243	Low	0	Null	0.373865408	Low
Stenocereus beneckei	0	Null	0.329881243	Mid-low	8	Mid-low	3.532728218	Mid-high
Stenocereus eruca	0	Null	0.329881243	Low	0	Null	1.975288896	Mid-low
Stenocereus fricii	0	Null	0.329881243	Low	0	Null	5.126154584	Mid-high
Stenocereus griseus	0	Null	0.329881243	Low	0	Null	0.063976968	Low
Stenocereus gummosus	4.761904762	Mid-low	0.412851374	Mid-low	0	Null	0.912671438	Mid-low
Stenocereus montanus	0	Null	0.329881243	Low	0	Null	5.276100604	High
Stenocereus pruinosus	0	Null	0.412851374	Low	0	Null	0.003998561	Low
Stenocereus queretaroensis	4.615384615	Low	0.329881243	Low	0	Null	11.22995722	High
Stenocereus stellatus	0	Null	0.412851374	Low	0	Null	0.631772562	Mid-low
Stenocereus thurberi	5.263157895	Mid-high	0.329881243	Low	0	Null	1.192570675	Mid-low
Stenocereus treleasei	0	Null	0.329881243	Low	0	Null	12.30856892	High
Tagetes erecta	0.134952767	Low	0.329881243	Low	0.674763833	Low	4.78227838	Mid-high
Tagetes filifolia	0	Null	0.412851374	Mid-low	0.598802395	Low	3.077891959	Mid-high
Tagetes foetidissima	0	Null	0.329881243	Low	0	Null	5.589987604	High
Tagetes lucida	0	Null	0.412851374	Low	0	Null	0.1519453	Low
Tagetes micrantha	0	Null	0.412851374	Mid-low	3.501945525	Mid-high	8.95177736	High
Tagetes pringlei	0	Null	0.412851374	Low	0	Null	3.717661642	Mid-high
Tagetes stenophylla	0	Null	0.329881243	Low	0	Null	0.006997481	Low
Tagetes subulata	0	Null	0.412851374	Mid-low	0.418410042	Low	0.183933784	Low
Theobroma cacao	0	Null	0.412851374	Mid-low	2.816901408	Mid-low	2.536087009	Mid-high
Tripsacum dactyloides var. *hispidum*	0	Null	0.412851374	Mid-low	11.01694915	Mid-high	4.78727658	Mid-high
Tripsacum intermedium	0	Null	0.329881243	Low	10	Low	1.705386061	Mid-low
Tripsacum lanceolatum	0	Null	0.329881243	Low	0	Null	0.23391579	Low
Tripsacum laxum	0	Null	0.412851374	Low	0	Null	13.16426087	High
Tripsacum maizar	0	Null	0.329881243	Low	0	Null	10.18433364	High
Tripsacum pilosum	0	Null	0.329881243	Low	0	Null	1.105601983	Mid-low
Vanilla planifolia	0	Null	0.329881243	Low	0	Null	0.722739814	Low
Zea diploperennis	0	Null	0.329881243	Low	0	Null	0.69774881	Mid-low
Zea mays subsp. *mexicana*	0.212765957	Low	0.412851374	Mid-low	0	Null	2.139229877	Mid-high

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	Category 0				**Category 1**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	0.329881243	Low	0	Null	0.46483266	Low
Zea perennis	0	Null	0.412851374	Low	0	Null	0.758726858	Mid-low

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	Category 2				Category 3			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	0.405679513	Low	0.098964373	Low	0.405679513	Low	0.107961134	Low
Agave atrovirens	0	Null	8.173057699	High	0	Null	6.782558279	High
Agave congesta	0	Null	6.203766644	High	0	Null	2.54908233	Mid-high
Agave datylio	0	Null	0.912671438	Mid-low	0	Null	3.746651206	Mid-high
Agave fourcroydes	0	Null	0.936662801	Mid-low	0	Null	2.529089528	Mid-high
Agave hiemiflora	0	Null	3.113879004	Mid-high	0	Null	0.07997121	Low
Agave hurteri	0	Null	0.125954656	Low	0	Null	0.564796673	Mid-low
Agave karwinskii	0	Null	2.165220521	Mid-low	0	Null	1.132592267	Mid-low
Agave macroacantha	0	Null	1.572433924	Mid-low	0	Null	0.471830141	Mid-low
Agave macroculmis	0	Null	0.143948179	Low	0	Null	0.111959695	Low
Agave rhodacantha	0	Null	0.479827262	Low	19.60784314	High	2.874965013	Mid-high
Agave seemanniana	0	Null	0.912671438	Mid-low	0	Null	1.989283858	Mid-low
Agave sisalana	0	Null	3.457755208	Mid-high	15.38461538	Mid-high	13.54812268	High
Agave tequilana	0	Null	0.631772562	Mid-low	0	Null	0.23191651	Low
Amaranthus australis	0	Null	1.478467752	Mid-low	3.333333333	Low	2.170218721	Mid-low
Amaranthus blitoides	0	Null	0.019992803	Low	0	Null	2.604062537	Mid-high
Amaranthus caudatus	0	Null	3.500739734	Mid-high	0	Null	0.252908953	Low
Amaranthus cruentus	0	Null	0.603782638	Mid-low	4.761904762	Mid-low	2.505098165	Mid-high
Amaranthus dubius	0	Null	0.07897157	Low	0	Null	1.23655484	Mid-low
Amaranthus fimbriatus	0	Null	5.55799912	High	0	Null	7.212403535	High
Amaranthus greggii	0	Null	0.587788396	Mid-low	0	Null	1.985285297	Mid-low
Amaranthus hybridus	18.56925419	High	7.304370427	High	0.761035008	Mid-low	2.147226998	Mid-low
Amaranthus hypochondriacus	2.127659574	Low	5.677955936	High	10.63829787	Mid-high	13.68707265	High
Amaranthus palmeri	16.34615385	High	10.61517854	High	0.961538462	Low	0.351873326	Mid-low
Amaranthus polygonoides	3.225806452	Low	13.24523172	High	0	Null	14.22587868	High
Amaranthus powellii	1.063829787	Low	0.216921908	Low	9.574468085	Mid-high	4.996201368	Mid-high
Amaranthus scariosus	12.76595745	Mid-high	1.988284218	Mid-high	0	Null	0.145947459	Low
Amaranthus spinosus	0	Null	0.15094566	Low	0	Null	0.793714263	Mid-low
Amaranthus torreyi	0	Null	0.763725059	Mid-low	0	Null	2.577072254	Mid-low
Annona cherimola	0.882352941	Low	5.273101683	High	5	Mid-high	4.900235915	High
Annona glabra	0	Null	2.228197849	Mid-low	1.183431953	Low	2.260186333	Mid-low
Annona globiflora	0	Null	0.116957895	Low	0.268096515	Low	0.249910032	Low
Annona liebmanniana	0	Null	7.911151985	High	0	Null	6.838538126	High

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

	Category 2				**Category 3**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	0	Null	12.43152465	High	4.347826087	Mid-low	10.83210044	High
Annona macroprophyllata	0	Null	8.071094406	High	0	Null	6.485665161	High
Annona muricata	0	Null	1.08061098	Mid-low	0.775193798	Low	3.523731457	Mid-high
Annona purpurea	6.481481481	Mid-high	1.360510216	Mid-low	0	Null	1.288536127	Mid-low
Annona reticulata	7.495069034	High	2.532088448	Mid-high	50.88757396	High	9.322643848	High
Annona squamosa	1.060070671	Low	2.765004598	Mid-low	1.060070671	Low	3.529729297	Mid-high
Bixa orellana	0	Null	8.79883242	High	0	Null	5.203126874	Mid-high
Byrsonima crassifolia	0	Null	2.258187053	Mid-low	0	Null	0.652765005	Mid-low
Capsicum annuum var. *glabriusculum*	0.766283525	Low	0.335879084	Low	0.383141762	Low	0.69275061	Mid-low
Capsicum frutescens	6.788511749	High	2.644048143	Mid-high	3.394255875	Mid-high	0.882682234	Mid-low
Carica papaya	0	Null	6.800551801	Mid-high	0.337837838	Low	6.012835379	Mid-high
Carya illinoinensis	4.316546763	Mid-low	1.784357631	Mid-low	7.913669065	Mid-high	6.297732816	High
Carya ovata	0.99009901	Low	3.654684314	Mid-high	0	Null	0.343876205	Low
Carya palmeri	7.142857143	Mid-high	13.30421048	High	11.9047619	High	3.742652645	Mid-high
Crataegus mexicana	0	Null	0.727738014	Mid-low	0	Null	0.179935223	Low
Cucurbita argyrosperma	0	Null	0.126954296	Low	1.382488479	Mid-low	0.262905354	Low
Cucurbita argyrosperma subsp. *sororia*	7.126948775	High	3.908592907	Mid-high	3.118040089	Mid-high	10.36626814	High
Cucurbita cordata	1.075268817	Low	0.277899956	Low	1.075268817	Low	0.23491543	Low
Cucurbita digitata	2.272727273	Low	8.184053741	High	0	Null	5.547003079	Mid-high
Cucurbita foetidissima	9.917355372	High	8.217041865	High	1.239669421	Mid-low	2.040265504	Mid-low
Cucurbita lundelliana	0	Null	9.342636651	High	0	Null	7.581270743	High
Cucurbita okeechobeensis subsp. *martinezii*	1.754385965	Mid-low	4.046543244	Mid-high	0.877192982	Low	0.985645168	Mid-low
Cucurbita palmata	0	Null	7.980127154	High	0	Null	0.528809629	Mid-low
Cucurbita pedatifolia	0	Null	1.503458755	Mid-low	7.058823529	Mid-high	0.703746651	Low
Cucurbita pepo subsp. *fraterna*	0	Null	0.097964733	Low	0	Null	0.004998201	Low
Cucurbita radicans	1.204819277	Low	17.83857811	High	0	Null	0.15494422	Low
Diospyros conzattii	0	Null	7.031468671	Mid-high	0	Null	0.016993882	Low
Gossypium aridum	0	Null	0.148946379	Low	0	Null	1.523451557	Mid-low
Gossypium barbadense	11.68831169	High	2.595065776	Mid-high	0	Null	0.915670359	Mid-low
Gossypium gossypioides	0	Null	0.747730817	Mid-low	0	Null	10.95405654	High

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	Category 2				Category 3			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Gossypium hirsutum	1.072705602	Mid-low	1.600423847	Mid-low	7.508939213	High	8.87080651	High
Gossypium thurberi	0	Null	0.818705266	Mid-low	0	Null	1.342516694	Mid-low
Helianthus laciniatus	6	Mid-high	6.359710504	High	0	Null	3.00891679	Mid-high
Helianthus niveus	0	Null	0.200927666	Low	0	Null	0.626774361	Mid-low
Hylocereus ocamponis	0	Null	9.476588428	High	2.127659574	Low	9.007757207	High
Ipomoea batatas	0.41322314	Low	10.69514975	High	0.41322314	Low	2.961933704	Mid-high
Ipomoea tiliacea	4.761904762	High	11.65280499	High	0.529100529	Low	1.602423128	Mid-high
Ipomoea trifida	0.473933649	Low	7.888160262	High	0	Null	3.752649046	Mid-high
Ipomoea triloba	0.995024876	Low	3.329801272	Mid-high	2.487562189	Mid-high	8.79883242	High
Jacaratia dolichaula	0	Null	1.934303651	Mid-low	0	Null	1.995281699	Mid-low
Jacaratia mexicana	0.512820513	Low	1.194569955	Mid-high	0	Null	0.590787317	Mid-low
Jarilla heterophylla	56.36363636	High	5.7119437	High	0	Null	1.484465592	Mid-low
Jatropha andrieuxii	47.05882353	High	16.8269423	High	0	Null	9.618537327	High
Jatropha mcvaughii	8.333333333	Low	3.722659842	Mid-high	25	Mid-high	2.964932624	Mid-high
Leucaena confertiflora	0	Null	0.654764285	Low	0	Null	0.120956456	Low
Leucaena diversifolia	4.740406321	Mid-low	0.248910392	Low	2.483069977	Low	0.063976968	Low
Leucaena esculenta	0.614754098	Low	6.825542805	High	0.204918033	Low	3.090887281	Mid-high
Leucaena lanceolata	1.687763713	Mid-low	7.668239434	High	0.210970464	Low	3.058898796	Mid-high
Leucaena leucocephala	1.01010101	Mid-high	4.136510856	Mid-high	0.224466891	Low	1.720380663	Mid-low
Manihot aesculifolia	5.381165919	Mid-high	8.79883242	High	0	Null	2.658043104	Mid-high
Manihot angustiloba	1.6	Low	2.110240313	Mid-low	2.4	Mid-low	2.681034827	Mid-high
Manihot caudata	0	Null	0.284897437	Low	0	Null	0.203926586	Low
Manihot chlorosticta	1.408450704	Mid-low	1.051621416	Mid-low	1.408450704	Mid-low	5.623975369	High
Manihot davisiae	2.5	Low	2.616058219	Mid-high	0	Null	4.018553321	Mid-high
Manihot foetida	7.142857143	Mid-low	1.442480707	Mid-high	3.571428571	Low	9.518573314	High
Manihot michaelis	0	Null	0.044983806	Low	0	Null	0.033987764	Low
Manihot oaxacana	0	Null	1.631412691	Mid-low	2.631578947	Mid-low	5.379063537	Mid-high
Manihot pauciflora	1.694915254	Low	1.449478188	Mid-low	18.6440678	High	5.09016754	High
Manihot pringlei	0	Null	0.22891759	Low	0	Null	0.224919029	Low
Manihot rhomboidea	0	Null	6.105801911	High	0	Null	5.033188052	Mid-high
Manihot rhomboidea subsp. *microcarpa*	0	Null	0.054980207	Low	0	Null	0.054980207	Low
Manihot rubricaulis	6.722689076	Mid-high	0.728737654	Mid-low	0	Null	3.55172138	Mid-high

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	Category 2				Category 3			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	0	Null	2.599064337	Mid-high	0	Null	0.162941341	Low
Manihot tomatophylla	0	Null	0.436842737	Mid-low	0	Null	0.686752769	Mid-low
Manilkara chicle	2.564102564	Low	7.123435563	High	0	Null	0.22791795	Mid-low
Manilkara zapota	1.565995526	Mid-high	2.069255068	Mid-high	3.131991051	High	1.110600184	Mid-low
Opuntia atropes	1.923076923	Low	2.483106082	Mid-high	3.846153846	Mid-low	1.921308329	Mid-high
Opuntia ficus-indica	3.361344538	Mid-high	3.026910312	Mid-high	0	Null	0.378863609	Low
Opuntia hyptiacantha	18.38235294	High	8.666879923	High	61.76470588	High	6.352713023	High
Opuntia lasiacantha	0	Null	0.220920469	Low	1.428571429	Low	1.170578592	Mid-low
Opuntia spinulifera	0	Null	4.39741693	Mid-high	0	Null	9.737494502	High
Opuntia streptacantha	47.63779528	High	6.511655804	High	35.43307087	High	11.49786077	High
Opuntia undulata	50	High	6.275740733	High	0	Null	3.091886921	Mid-high
Opuntia velutina	14.92537313	High	7.302371146	High	2.985074627	Low	7.843176456	High
Pachyrhizus erosus	6.52173913	Mid-high	2.809988404	Mid-high	1.739130435	Low	0.513815027	Mid-low
Persea americana	12.62327416	High	2.534087728	Mid-high	7.100591716	High	4.043544324	Mid-high
Persea schiedeana	0	Null	16.18217442	High	0	Null	0.779719301	Mid-low
Phaseolus acutifolius	9.090909091	High	4.418409373	Mid-high	4.21286031	Mid-high	3.485745132	Mid-high
Phaseolus acutifolius var. *acutifolius*	1.176470588	Low	0.988644088	Mid-low	0	Null	0.217921548	Low
Phaseolus acutifolius var. *tenuifolius*	1.941747573	Low	12.08664881	High	2.912621359	Mid-low	4.496381303	Mid-high
Phaseolus coccineus	1.902173913	Mid-high	9.381622616	High	0.27173913	Mid-low	1.210564197	Mid-low
Phaseolus coccineus subsp. *coccineus*	0.304878049	Low	3.101883322	Mid-high	0.304878049	Low	1.116598025	Mid-low
Phaseolus dumosus	8.783783784	Mid-high	0.423847415	Low	0	Null	0.00099964	Low
Phaseolus filiformis	3.885480573	Mid-high	24.25626774	High	0.81799591	Mid-low	8.748850414	High
Phaseolus maculatus subsp. *ritensis*	0	Null	0.31088808	Low	0	Null	2.680035187	Mid-high
Phaseolus parvifolius	1.204819277	Low	2.640049582	Mid-high	0	Null	0.712743412	Mid-low
Phaseolus vulgaris	0.387596899	Low	0.243912192	Low	0.387596899	Low	0.125954656	Low
Physalis acutifolia	0	Null	2.358151066	Mid-low	0	Null	0.439841657	Low
Physalis ampla	13.33333333	Mid-high	5.919868847	High	0	Null	6.075812707	High
Physalis angulata	3.846153846	Mid-low	1.058618897	Mid-low	14.1025641	High	15.18753249	High
Physalis crassifolia	3.076923077	Low	17.05685953	High	0	Null	4.526370507	Mid-high

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	Category 2				Category 3			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	0	Null	5.286097005	Mid-high	0	Null	2.874965013	Mid-high
Physalis philadelphica	3.581267218	High	3.074893039	Mid-high	3.03030303	Mid-high	1.760366268	Mid-low
Physalis sulphurea	0	Null	0.69175097	Mid-low	0	Null	6.454676317	High
Pinus ayacahuite	8.510638298	Mid-high	4.559358631	High	23.40425532	High	2.809988404	Mid-high
Pinus cembroides	0.239808153	Low	1.336518853	Mid-low	0.239808153	Low	2.057259387	Mid-low
Pithecellobium dulce	1.031518625	Mid-high	12.60646167	High	1.661891117	Mid-high	18.86420888	High
Porophyllum gracile	0	Null	2.860970051	Mid-high	0	Null	8.633891799	High
Porophyllum linaria	1	Low	2.688032308	Mid-high	0	Null	0.581790555	Low
Porophyllum ruderale	0.483091787	Low	0.124955016	Low	14.97584541	High	4.717301771	Mid-high
Porophyllum scoparium	0	Null	0.433843816	Low	0	Null	0.205925867	Low
Pouteria campechiana	0	Null	0.138949978	Low	2.51572327	Mid-low	4.027550082	Mid-high
Pouteria durlandii	18.42105263	Mid-high	2.951937303	Mid-high	47.36842105	High	0.684753489	Mid-low
Pouteria reticulata	0	Null	11.04102523	High	0	Null	1.885321284	Mid-high
Pouteria sapota	0	Null	0.148946379	Low	0	Null	0.176936303	Low
Psidium guajava	4.529616725	Mid-high	0.879683314	Mid-low	4.529616725	Mid-high	0.159942421	Low
Psidium guineense	0	Null	0.455835899	Low	0	Null	0.623775441	Mid-low
Psidium oligospermum	0.571428571	Low	1.521452277	Mid-low	4	Mid-high	1.652405134	Mid-low
Salvia axillaris	0	Null	0.747730817	Mid-low	0	Null	0.62077652	Mid-low
Salvia carnea	19.67213115	Mid-high	1.101603423	Mid-low	0	Null	0.066975889	Low
Salvia cinnabarina	0	Null	4.018553321	Mid-high	0	Null	10.30628974	High
Salvia coccinea	2.75	Mid-low	0.828701667	Mid-low	4.5	Mid-high	3.93658283	Mid-high
Salvia columbariae	0	Null	0.204926227	Low	0	Null	0.07397337	Low
Salvia elegans	1.410934744	Mid-high	3.217841577	Mid-high	0.176366843	Low	14.27486105	High
Salvia fluviatilis	20	Mid-high	7.115438442	High	10	Low	8.252029269	High
Salvia helianthemifolia	36.11111111	High	6.351713383	High	2.777777778	Low	5.264104922	Mid-high
Salvia hispanica	3.149606299	Mid-low	0.798712464	Mid-low	0	Null	0.167939542	Low
Salvia laevis	0.78125	Low	3.751649406	Mid-high	0	Null	0.589787676	Mid-low
Salvia lasiantha	0	Null	2.869966812	Mid-low	0	Null	4.373425567	Mid-high
Salvia lasiocephala	9.433962264	High	5.757927146	Mid-high	8.490566038	High	4.667319765	Mid-high
Salvia longispicata	0	Null	8.010116358	High	0	Null	2.194210084	Mid-high
Salvia mexicana	0.540540541	Low	2.819984805	Mid-high	3.243243243	Mid-high	1.892318765	Mid-low
Salvia microphylla	0.182481752	Low	0.302890959	Mid-low	0	Null	0.007997121	Low
Salvia misella	6.306306306	Mid-high	12.5274901	High	1.801801802	Mid-low	9.342636651	High

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	Category 2				Category 3			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	11.42857143	Mid-high	0.362869367	Low	0	Null	0.205925867	Low
Salvia occidentalis	0.966183575	Low	0.837698429	Mid-low	0.483091787	Low	0.416849934	Low
Salvia patens	0	Null	1.844336039	Mid-low	0	Null	2.31216762	Mid-low
Salvia polystachia	0	Null	3.563717062	Mid-high	18.51851852	High	2.969930825	Mid-high
Salvia prunelloides	15.09433962	High	2.706025831	Mid-low	3.773584906	Low	1.635411252	Mid-low
Salvia purpurea	0.249376559	Low	1.184573554	Mid-high	0	Null	0.718741253	Mid-high
Salvia regla	0	Null	0.018993162	Low	0	Null	0.226918309	Low
Salvia sanctae-luciae	0	Null	16.80095166	High	0	Null	4.454396417	Mid-high
Salvia setulosa	0	Null	0.159942421	Low	0	Null	0.048982366	Low
Salvia thyrsiflora	26.71755725	High	5.450037986	Mid-high	0	Null	0.031988484	Low
Salvia tiliifolia	1.176470588	Low	3.739653725	Mid-high	0	Null	0.969650926	Mid-low
Sechium chinantlense	0	Null	0.332880163	Low	0	Null	0.15794314	Low
Sechium compositum	18.51851852	High	4.847254988	Mid-high	3.703703704	Low	5.963853013	High
Sechium edule subsp. *sylvestre*	0	Null	5.838897997	High	16.12903226	Mid-high	2.69902835	Mid-high
Sechium hintonii	0	Null	6.054820265	High	0	Null	8.670878484	High
Simmondsia chinensis	0	Null	0.391858931	Mid-low	0	Null	0.274901036	Low
Solanum bulbocastanum	0	Null	0.341876924	Mid-low	0	Null	0.247910752	Low
Solanum cardiophyllum	12.91666667	High	12.97732816	High	43.33333333	High	9.213683074	High
Solanum demissum	0	Null	0.094965812	Low	0	Null	0.249910032	Low
Solanum ehrenbergii	0	Null	0.815706346	Mid-low	0	Null	3.597704826	Mid-high
Solanum hjertingii	0	Null	2.485105362	Mid-low	0	Null	3.544723899	Mid-high
Solanum hougasii	0	Null	0.30688952	Low	0	Null	0.706745572	Mid-low
Solanum iopetalum	1.851851852	Mid-high	14.38182254	High	3.439153439	Mid-high	5.757927146	High
Solanum morelliforme	0	Null	0.23291615	Low	22.4	High	1.764364829	Mid-low
Solanum oxycarpum	0	Null	10.43024511	High	0	Null	9.64152905	High
Solanum pinnatisectum	0	Null	4.227478108	Mid-high	0.934579439	Low	14.29885241	High
Solanum polyadenium	0.862068966	Low	3.801631413	Mid-high	0.862068966	Low	4.293454356	Mid-high
Solanum schenckii	3.448275862	Low	4.763285217	Mid-high	0	Null	5.870886481	Mid-high
Solanum stenophyllidium	3.703703704	Mid-high	2.331160782	Mid-high	1.851851852	Low	0.743732256	Mid-low
Solanum stoloniferum	2.069536424	Mid-high	2.250189932	Mid-low	5.546357616	High	4.174497181	Mid-high
Solanum tarnii	0	Null	0.820704546	Mid-low	0	Null	0.165940262	Low
Solanum trifidum	0	Null	0.144947819	Low	0	Null	0.214922628	Low
Solanum verrucosum	0.383141762	Mid-low	5.350073973	High	0	Null	0.23391579	Low

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	Category 2				Category 3			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	0	Null	5.129153505	High	0	Null	0.722739814	Mid-low
Spondias purpurea	2.645502646	Mid-low	0.240913271	Mid-low	0	Null	0.274901036	Mid-low
Stenocereus alamosensis	0	Null	4.531368707	High	0	Null	10.67015874	High
Stenocereus beneckei	4	Low	3.862609461	Mid-high	72	High	2.562077652	Mid-high
Stenocereus eruca	0	Null	1.677396137	Mid-low	0	Null	10.58818825	High
Stenocereus fricii	0	Null	0.666759966	Low	0	Null	0.77072254	Mid-low
Stenocereus griseus	4	Mid-low	4.733296013	Mid-high	6	Mid-high	4.219480987	Mid-high
Stenocereus gummosus	0	Null	0.425846695	Mid-low	0	Null	0.302890959	Low
Stenocereus montanus	4.166666667	Low	3.479747291	Mid-high	12.5	Low	4.85925067	High
Stenocereus pruinosus	1	Low	0.285897077	Low	1	Low	0.206925507	Low
Stenocereus queretaroensis	0	Null	10.92406734	High	1.538461538	Low	8.084089728	High
Stenocereus stellatus	0	Null	0.23391579	Low	0	Null	2.732016474	Mid-high
Stenocereus thurberi	0	Null	0.758726858	Mid-low	0	Null	0.088967972	Low
Stenocereus treleasei	0	Null	0.456835539	Mid-low	0	Null	5.355072174	Mid-high
Tagetes erecta	0.134952767	Low	0.46283338	Mid-low	2.159244265	Mid-low	22.14602743	High
Tagetes filifolia	0	Null	0.016993882	Low	0	Null	1.866328122	Mid-low
Tagetes foetidissima	0	Null	4.738294214	Mid-high	0	Null	0.187932344	Low
Tagetes lucida	0.223713647	Low	0.246911112	Low	1.342281879	Mid-high	0.129953217	Low
Tagetes micrantha	3.112840467	Mid-high	5.945859491	Mid-high	0.778210117	Low	8.447958735	High
Tagetes pringlei	0	Null	5.221120397	High	0	Null	1.600423847	Mid-low
Tagetes stenophylla	0	Null	0.160942061	Low	0	Null	0.042984526	Low
Tagetes subulata	4.184100418	Mid-low	11.8697269	High	5.020920502	Mid-high	4.073533528	Mid-high
Theobroma cacao	5.633802817	High	1.922307969	Mid-low	1.408450704	Low	0.177935943	Low
Tripsacum dactyloides var. *hispidum*	22.88135593	High	5.280099164	Mid-high	19.49152542	Mid-high	7.40733336	Mid-high
Tripsacum intermedium	0	Null	0.609780479	Mid-low	30	High	1.15758327	Mid-low
Tripsacum lanceolatum	0	Null	0.098964373	Low	0	Null	0.082970131	Low
Tripsacum laxum	0	Null	7.805190132	High	0	Null	2.244192091	Mid-low
Tripsacum maizar	10	Low	4.411411892	Mid-high	0	Null	8.448958375	High
Tripsacum pilosum	0	Null	12.70042785	High	0	Null	3.684673518	Mid-high
Vanilla planifolia	0	Null	1.92730617	Mid-high	0	Null	0.646767164	Low
Zea diploperennis	0	Null	0.755727938	Mid-low	0	Null	4.312447519	Mid-high
Zea mays subsp. *mexicana*	0.212765957	Low	8.709864449	High	0	Null	1.334519573	Mid-low

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	Category 2				**Category 3**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	2.975928666	Mid-high	0	Null	1.305530009	Mid-low
Zea perennis	0	Null	3.296813147	Mid-high	0	Null	0.398856412	Low

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	Category 4				Category 5			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	0.202839757	Low	0.805709944	Mid-low	0.60851927	Low	0.449838058	Low
Agave atrovirens	0	Null	2.08225039	Mid-low	0	Null	0.355871886	Low
Agave congesta	0	Null	2.134231677	Mid-low	0	Null	1.613419169	Mid-low
Agave datylio	0	Null	0.037986325	Low	0	Null	0.028989564	Low
Agave fourcroydes	0	Null	1.565436443	Mid-low	92.10526316	Mid-high	9.161701787	High
Agave hiemiflora	0	Null	16.11119997	High	0	Null	3.601703387	Mid-high
Agave hurteri	0	Null	0.006997481	Low	0	Null	0.039985605	Low
Agave karwinskii	0	Null	2.087248591	Mid-low	0	Null	5.374065336	Mid-high
Agave macroacantha	3.125	Low	0.478827622	Mid-low	0	Null	0.215922268	Low
Agave macroculmis	0	Null	0.884681515	Mid-low	0	Null	0.502818985	Mid-low
Agave rhodacantha	0	Null	1.924307249	Mid-low	0	Null	6.913511136	High
Agave seemanniana	0	Null	9.733495941	High	0	Null	8.615898277	High
Agave sisalana	0	Null	0.46483266	Mid-low	0	Null	4.392418729	Mid-high
Agave tequilana	0	Null	2.606061818	Mid-high	0	Null	1.615418449	Mid-high
Amaranthus australis	0	Null	2.105242113	Mid-low	0	Null	2.490103563	Mid-high
Amaranthus blitoides	0	Null	6.300731737	High	0	Null	0.011995682	Low
Amaranthus caudatus	4.761904762	Low	8.122076053	High	0	Null	11.13599104	High
Amaranthus cruentus	11.11111111	High	0.715742333	Mid-low	0	Null	0.07797193	Low
Amaranthus dubius	0	Null	0.193930185	Mid-low	18.36734694	Mid-high	4.137510496	Mid-high
Amaranthus fimbriatus	0	Null	0.15094566	Low	0	Null	0.877684034	Mid-low
Amaranthus greggii	0	Null	0.988644088	Mid-low	0	Null	0.244911832	Low
Amaranthus hybridus	6.240487062	Mid-high	5.414050942	Mid-high	4.261796043	Mid-high	2.075252909	Mid-low
Amaranthus hypochondriacus	4.255319149	Mid-high	1.743372386	Mid-high	2.127659574	Low	1.881322724	Mid-high
Amaranthus palmeri	2.884615385	Mid-low	5.09116718	Mid-high	9.615384615	High	12.29857251	High
Amaranthus polygonoides	0	Null	0.729737295	Mid-low	3.225806452	Low	1.067615658	Mid-low
Amaranthus powellii	0	Null	0.058978768	Low	0	Null	0.084969411	Low
Amaranthus scariosus	6.382978723	Mid-high	4.078531729	Mid-high	4.255319149	Mid-low	5.94086129	Mid-high
Amaranthus spinosus	0.434782609	Low	11.51385501	High	0	Null	0.344875845	Low
Amaranthus torreyi	2	Low	3.117877564	Mid-high	4	Mid-low	7.552281179	High
Annona cherimola	7.941176471	High	4.793274421	Mid-high	3.823529412	Mid-low	1.167579671	Mid-low
Annona glabra	45.56213018	High	8.574913031	High	7.692307692	Mid-high	3.154864249	Mid-high
Annona globiflora	5.09383378	High	0.549802071	Mid-low	0.268096515	Low	0.362869367	Low
Annona liebmanniana	0	Null	3.480746931	Mid-high	0	Null	14.14190891	High

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	Category 4				Category 5			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	0	Null	9.845455636	High	0	Null	8.312007677	High
Annona macroprophyllata	0	Null	1.015634372	Mid-low	0	Null	2.249190291	Mid-low
Annona muricata	10.85271318	Mid-high	5.352073254	High	0	Null	0.034987405	Low
Annona purpurea	4.62962963	Mid-low	3.842616658	High	3.703703704	Mid-low	2.071254348	Mid-high
Annona reticulata	0	Null	0.099964013	Low	0	Null	0.095965452	Low
Annona squamosa	0	Null	3.999560158	Mid-high	1.413427562	Mid-low	9.522571874	High
Bixa orellana	0	Null	2.69902835	Mid-high	0	Null	0.61477868	Mid-low
Byrsonima crassifolia	0	Null	2.202207205	Mid-low	0.432900433	Low	10.60418249	High
Capsicum annuum var. *glabriusculum*	4.214559387	Mid-high	2.616058219	Mid-high	11.11111111	High	10.44124115	High
Capsicum frutescens	0.261096606	Low	5.370066776	Mid-high	4.438642298	Mid-high	2.129233476	Mid-high
Carica papaya	0	Null	7.367347755	High	0	Null	8.550921668	High
Carya illinoinensis	0	Null	0.221920109	Low	0.71942446	Low	4.425406854	Mid-high
Carya ovata	6.930693069	High	7.993122476	High	2.97029703	Mid-high	7.055460034	High
Carya palmeri	0	Null	0.088967972	Low	0	Null	0.750729737	Mid-low
Crataegus mexicana	0	Null	7.309368627	High	0	Null	12.86436883	High
Cucurbita argyrosperma	0.460829493	Low	0.594785877	Mid-low	2.764976959	Mid-high	2.147226998	Mid-low
Cucurbita argyrosperma subsp. *sororia*	0	Null	0.025990643	Low	0	Null	0.168939182	Low
Cucurbita cordata	2.150537634	Mid-low	12.17261786	High	0	Null	4.327442121	Mid-high
Cucurbita digitata	0	Null	4.268463353	Mid-high	0	Null	4.111519853	Mid-high
Cucurbita foetidissima	14.87603306	High	12.09564557	High	29.75206612	High	14.13691071	High
Cucurbita lundelliana	0	Null	3.412771402	Mid-high	0	Null	7.604262466	High
Cucurbita okeechobeensis subsp. *martinezii*	2.631578947	Mid-low	6.932504298	High	1.754385965	Mid-low	12.17461714	High
Cucurbita palmata	0	Null	5.294094126	Mid-high	0	Null	3.406773562	Mid-high
Cucurbita pedatifolia	4.705882353	Mid-high	1.968291415	Mid-low	0	Null	0.786716782	Mid-low
Cucurbita pepo subsp. *fraterna*	0	Null	0.726738374	Mid-low	0	Null	0.402854972	Low
Cucurbita radicans	0	Null	2.670038786	Mid-high	3.614457831	Mid-low	1.940301491	Mid-high
Diospyros conzattii	0	Null	13.89899636	High	0	Null	7.124435203	High
Gossypium aridum	0	Null	0.126954296	Low	2.857142857	Mid-high	11.6977888	High
Gossypium barbadense	9.090909091	High	1.026630413	Mid-low	1.298701299	Low	0.46383302	Low
Gossypium gossypioides	0	Null	0.22991723	Low	2.222222222	Low	0.369866848	Mid-low

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	Category 4				Category 5			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0.238379023	Low	0.627774001	Mid-low	0	Null	0.00199928	Low
Gossypium thurberi	15.38461538	High	5.808908793	High	5.128205128	Low	8.063097285	High
Helianthus laciniatus	26	High	13.4541565	High	53	High	19.83485945	High
Helianthus niveus	0	Null	0.422847775	Low	0	Null	0.240913271	Low
Hylocereus ocamponis	0	Null	7.959134712	High	0	Null	8.25802711	High
Ipomoea batatas	0	Null	1.865328482	Mid-high	0	Null	4.734295654	High
Ipomoea tiliacea	6.349206349	High	2.694030149	Mid-high	12.16931217	High	3.656683594	Mid-high
Ipomoea trifida	0.236966825	Low	0.163940981	Low	0.947867299	Mid-low	0.581790555	Mid-low
Ipomoea triloba	0	Null	1.859330641	Mid-low	1.492537313	Mid-low	2.397137031	Mid-high
Jacaratia dolichaula	0	Null	2.93494342	Mid-high	0	Null	0.116957895	Low
Jacaratia mexicana	0	Null	0.785717142	Mid-low	2.051282051	Mid-low	2.375144948	Mid-high
Jarilla heterophylla	0	Null	3.279819265	Mid-high	0	Null	5.158143068	High
Jatropha andrieuxii	0	Null	4.135511216	Mid-high	0	Null	8.318005518	High
Jatropha mcvaughii	0	Null	0.111959695	Low	0	Null	1.050621776	Mid-low
Leucaena confertiflora	0	Null	8.381982486	High	4.166666667	Low	2.765004598	Mid-high
Leucaena diversifolia	17.15575621	High	7.963133272	High	6.546275395	High	7.845175737	High
Leucaena esculenta	0	Null	11.87772402	High	0	Null	0.939661722	Mid-low
Leucaena lanceolata	0	Null	1.071614219	Mid-low	1.054852321	Mid-low	3.843616298	Mid-high
Leucaena leucocephala	0	Null	0.00199928	Low	0	Null	0.652765005	Low
Manihot aesculifolia	0.896860987	Low	0.751729377	Mid-low	3.139013453	Mid-low	0.706745572	Mid-low
Manihot angustiloba	0	Null	0.07997121	Low	2.4	Mid-low	0.708744852	Mid-low
Manihot caudata	0	Null	0.006997481	Low	0	Null	9.267663641	High
Manihot chlorosticta	0	Null	3.046903115	Mid-high	0.938967136	Low	9.243672278	High
Manihot davisiae	0	Null	2.451117598	Mid-high	0	Null	2.427126235	Mid-low
Manihot foetida	21.42857143	Mid-high	4.893238434	High	0	Null	2.593066496	Mid-high
Manihot michaelis	0	Null	0.69275061	Mid-low	0	Null	0.15294494	Low
Manihot oaxacana	0.877192982	Low	6.610620177	High	5.263157895	Mid-high	8.281018833	High
Manihot pauciflora	0	Null	0.879683314	Mid-low	10.16949153	High	3.692670639	Mid-high
Manihot pringlei	0	Null	0.179935223	Low	0	Null	0.807709225	Mid-low
Manihot rhomboidea	1.020408163	Low	3.132872166	Mid-high	0	Null	0.239913631	Low
Manihot rhomboidea subsp. *microcarpa*	0	Null	0.879683314	Mid-low	0	Null	0.168939182	Low
Manihot rubricaulis	0.840336134	Low	4.201487465	Mid-high	5.042016807	Mid-high	2.637050662	Mid-high

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	Category 4				Category 5			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	60	High	14.76868327	High	16	High	6.802551082	High
Manihot tomatophylla	0	Null	0.042984526	Low	0	Null	0.169938822	Low
Manilkara chicle	0	Null	0.008996761	Low	0	Null	9.655524011	High
Manilkara zapota	2.684563758	High	3.148866408	Mid-high	50.33557047	High	8.525930665	High
Opuntia atropes	15.38461538	Mid-high	4.036546843	Mid-high	0	Null	7.706225759	High
Opuntia ficus-indica	0.840336134	Low	10.97404934	High	0	Null	2.918949178	Mid-low
Opuntia hyptiacantha	0.735294118	Low	2.028269823	Mid-low	2.205882353	Mid-low	4.874245272	Mid-high
Opuntia lasiacantha	1.428571429	Low	8.72086049	High	0	Null	4.39941621	Mid-high
Opuntia spinulifera	44	High	0.520812507	Low	0	Null	2.020272702	Mid-low
Opuntia streptacantha	1.968503937	Mid-low	2.784997401	Mid-high	3.543307087	High	1.323523532	Mid-low
Opuntia undulata	25	Mid-high	5.670958455	High	6.25	Low	8.809828462	High
Opuntia velutina	0	Null	0.093966172	Low	0	Null	0.377863969	Low
Pachyrhizus erosus	5.217391304	Mid-low	0.753728658	Mid-low	0	Null	0.15394458	Low
Persea americana	0.591715976	Low	0.783717862	Mid-low	10.65088757	High	6.858530929	High
Persea schiedeana	0	Null	2.953936583	Mid-high	0	Null	3.725658763	Mid-high
Phaseolus acutifolius	7.982261641	High	11.01503459	High	1.99556541	Mid-low	1.655404055	Mid-low
Phaseolus acutifolius var. *acutifolius*	0	Null	1.23255628	Mid-low	1.470588235	Low	7.674237275	High
Phaseolus acutifolius var. *tenuifolius*	4.854368932	Mid-high	10.26930305	High	5.825242718	High	4.188492143	Mid-high
Phaseolus coccineus	2.5	Mid-high	0.444839858	Low	3.967391304	Mid-high	1.200567796	Mid-low
Phaseolus coccineus subsp. *coccineus*	10.36585366	High	6.436682794	High	0.304878049	Low	0.376864329	Low
Phaseolus dumosus	2.027027027	Low	6.104802271	Mid-high	6.756756757	Mid-low	12.17761606	High
Phaseolus filiformis	0.204498978	Low	1.393498341	Mid-low	4.703476483	Mid-high	5.541005238	High
Phaseolus maculatus subsp. *ritensis*	0	Null	0.011995682	Low	0	Null	8.969770882	High
Phaseolus parvifolius	0	Null	0.269902835	Low	1.204819277	Low	9.926426486	High
Phaseolus vulgaris	2.114164905	Mid-high	0.555799912	Mid-low	1.62085976	Mid-high	0.818705266	Mid-low
Physalis acutifolia	4.494382022	Mid-low	3.387780399	Mid-high	1.123595506	Low	10.04538366	High
Physalis ampla	13.33333333	Mid-high	12.9883242	High	20	High	11.84073733	High
Physalis angulata	15.38461538	High	5.932864169	Mid-high	0	Null	0.15394458	Low
Physalis crassifolia	0	Null	2.596065416	Mid-high	1.538461538	Low	6.056819545	High

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	Category 4				Category 5			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	0	Null	0.483825823	Low	0	Null	11.0900076	High
Physalis philadelphica	3.03030303	Mid-high	3.77963933	Mid-high	1.101928375	Mid-low	5.061177976	Mid-high
Physalis sulphurea	0	Null	5.269103123	High	1.818181818	Low	0.829701308	Mid-low
Pinus ayacahuite	21.27659574	High	4.267463713	Mid-high	14.89361702	High	3.635691151	Mid-high
Pinus cembroides	1.918465228	Mid-low	10.25030989	High	0.479616307	Mid-low	2.426126594	Mid-high
Pithecellobium dulce	0.171919771	Low	3.349794074	Mid-high	0.05730659	Low	2.85597185	Mid-high
Porophyllum gracile	0	Null	0.201927306	Low	0	Null	0.30588988	Low
Porophyllum linaria	0	Null	13.67107841	High	0	Null	3.818625295	Mid-high
Porophyllum ruderale	8.695652174	Mid-high	9.089727698	High	0	Null	1.661401895	Mid-low
Porophyllum scoparium	0	Null	1.887320565	Mid-high	0	Null	1.810348275	Mid-low
Pouteria campechiana	5.660377358	Mid-high	3.686672798	Mid-high	0	Null	0.085969051	Low
Pouteria durlandii	2.631578947	Low	0.07597265	Low	5.263157895	Mid-high	0.531808549	Mid-low
Pouteria reticulata	0	Null	2.060258307	Mid-high	0	Null	5.320084769	Mid-high
Pouteria sapota	54.76190476	High	8.517933544	High	2.380952381	Low	1.8533328	Mid-high
Psidium guajava	1.393728223	Mid-low	0.283897797	Low	4.529616725	Mid-high	2.7799992	Mid-low
Psidium guineense	1.724137931	Low	20.4986205	High	0	Null	5.587988324	High
Psidium oligospermum	1.714285714	Mid-low	10.85609181	High	1.142857143	Low	7.140429445	High
Salvia axillaris	0	Null	0.07697229	Low	1.960784314	Low	7.027470111	High
Salvia carnea	0	Null	0.07597265	Low	4.918032787	Mid-low	0.333879803	Mid-low
Salvia cinnabarina	0	Null	7.532288376	High	0	Null	9.074733096	High
Salvia coccinea	0.75	Low	0.07697229	Low	4	Mid-high	0.986644808	Mid-low
Salvia columbariae	0	Null	0.174937023	Low	0	Null	0.637770403	Mid-low
Salvia elegans	0	Null	7.771202367	High	0.705467372	Mid-low	14.14190891	High
Salvia fluviatilis	0	Null	0.242912551	Low	0	Null	1.528449758	Mid-low
Salvia helianthemifolia	0	Null	0.159942421	Low	25	High	3.999560158	Mid-high
Salvia hispanica	0	Null	0.283897797	Low	0	Null	3.984565556	Mid-high
Salvia laevis	0	Null	0.081970491	Low	0	Null	0.756727578	Mid-low
Salvia lasiantha	35	High	6.3247231	High	5	Low	2.447119037	Mid-low
Salvia lasiocephala	4.716981132	Mid-high	6.311727778	High	2.830188679	Mid-low	1.122595865	Mid-low
Salvia longispicata	0	Null	1.865328482	Mid-low	0	Null	0.985645168	Mid-low
Salvia mexicana	1.081081081	Mid-low	5.661961694	High	0.540540541	Low	8.701867328	High
Salvia microphylla	0	Null	2.275180935	Mid-high	0.182481752	Low	9.352633052	High
Salvia misella	0.900900901	Low	7.17741613	High	6.306306306	Mid-high	8.597904754	High

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

	Category 4				Category 5			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	1.904761905	Low	1.167579671	Mid-low	0	Null	2.061257947	Mid-low
Salvia occidentalis	5.314009662	Mid-high	3.970570595	Mid-high	7.729468599	High	10.23131673	High
Salvia patens	0	Null	0.050981647	Low	0	Null	0.165940262	Low
Salvia polystachia	0.925925926	Low	5.933863809	Mid-high	0.925925926	Low	1.757367348	Mid-low
Salvia prunelloides	9.433962264	Mid-low	3.495741533	Mid-high	18.86792453	High	2.538086289	Mid-low
Salvia purpurea	0.748129676	Mid-low	0.405853893	Mid-low	0.249376559	Low	0.042984526	Low
Salvia regla	0	Null	0.796713183	Mid-low	0	Null	0.114958615	Low
Salvia sanctae-luciae	0	Null	20.53060898	High	0	Null	6.642608661	Mid-high
Salvia setulosa	0	Null	0.068975169	Low	0	Null	0.544803871	Mid-low
Salvia thyrsiflora	3.053435115	Low	8.863809029	High	3.816793893	Mid-low	3.93258427	Mid-high
Salvia tiliifolia	23.23529412	High	5.657963133	Mid-high	15.29411765	High	5.675956656	Mid-high
Sechium chinantlense	23.80952381	Mid-high	6.225758727	High	9.523809524	Low	12.04566356	High
Sechium compositum	7.407407407	Low	3.800631773	Mid-high	0	Null	4.604342437	Mid-high
Sechium edule subsp. *sylvestre*	0	Null	2.436122996	Mid-high	0	Null	3.670678556	Mid-high
Sechium hintonii	0	Null	3.573713463	Mid-high	0	Null	11.66580031	High
Simmondsia chinensis	0	Null	1.241553041	Mid-low	0	Null	0.056979487	Low
Solanum bulbocastanum	0.22675737	Low	10.80910872	High	0	Null	7.323363589	High
Solanum cardiophyllum	0.833333333	Low	3.870606582	Mid-high	2.083333333	Mid-high	1.863329201	Mid-low
Solanum demissum	0.736377025	Mid-low	4.621336319	Mid-high	0	Null	0.189931625	Low
Solanum ehrenbergii	0	Null	0.095965452	Low	0	Null	0.07897157	Low
Solanum hjertingii	0	Null	2.189211884	Mid-low	0	Null	1.474469191	Mid-low
Solanum hougasii	0	Null	7.116438082	High	0	Null	4.85825103	Mid-high
Solanum iopetalum	0.264550265	Low	2.674037347	Mid-low	0	Null	1.213563117	Mid-low
Solanum morelliforme	0	Null	0.104962214	Low	0	Null	0.067975529	Low
Solanum oxycarpum	0	Null	0.263904994	Low	0	Null	2.92994522	Mid-high
Solanum pinnatisectum	0	Null	0.00099964	Low	0	Null	0.580790915	Mid-low
Solanum polyadenium	0	Null	0.014994602	Low	7.75862069	High	4.223479547	Mid-high
Solanum schenckii	0	Null	0.266903915	Low	0	Null	0.239913631	Low
Solanum stenophyllidium	0	Null	5.652964933	High	0	Null	3.050901675	Mid-high
Solanum stoloniferum	0.496688742	Mid-low	5.164140909	High	0.248344371	Low	5.516014235	High
Solanum tarnii	0	Null	0.187932344	Low	0	Null	0.236914711	Mid-low
Solanum trifidum	0	Null	3.223839418	Mid-high	0	Null	0.509816466	Mid-low
Solanum verrucosum	24.5210728	High	4.227478108	Mid-high	8.045977011	High	5.570994442	High

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	Category 4				Category 5			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	1.435406699	Mid-low	7.829181495	High	0	Null	24.0633372	High
Spondias purpurea	2.116402116	Mid-low	0.700747731	Mid-low	11.64021164	High	4.763285217	Mid-high
Stenocereus alamosensis	0	Null	0.269902835	Low	7.142857143	Mid-high	3.402775001	Mid-high
Stenocereus beneckei	0	Null	1.609420609	Mid-low	0	Null	0.00099964	Low
Stenocereus eruca	0	Null	0.15294494	Low	0	Null	0.512815386	Low
Stenocereus fricii	0	Null	0.420848495	Low	0	Null	0.715742333	Low
Stenocereus griseus	4	Mid-low	0.416849934	Mid-low	0	Null	3.438762046	Mid-low
Stenocereus gummosus	0	Null	8.276020633	High	0	Null	4.456395698	Mid-high
Stenocereus montanus	0	Null	1.108600904	Mid-low	12.5	Low	3.556719581	Mid-high
Stenocereus pruinosus	0	Null	0.07997121	Low	2	Mid-low	0.950657763	Mid-low
Stenocereus queretaroensis	0	Null	18.86920709	High	0	Null	0.887680435	Mid-low
Stenocereus stellatus	0	Null	7.288376185	High	0	Null	2.141229158	Mid-high
Stenocereus thurberi	0	Null	6.611619817	High	0	Null	14.01895318	High
Stenocereus treleasei	0	Null	0.600783718	Mid-low	36.84210526	High	2.442120836	Mid-high
Tagetes erecta	0.134952767	Low	6.568635291	High	0	Null	0.024991003	Low
Tagetes filifolia	12.5748503	High	0.534807469	Mid-low	1.19760479	Mid-low	0.717741613	Mid-low
Tagetes foetidissima	0	Null	0.23091687	Low	0	Null	0.093966172	Low
Tagetes lucida	1.565995526	Mid-high	5.386061018	Mid-high	0.223713647	Low	8.290015594	High
Tagetes micrantha	0	Null	7.132432324	High	0.389105058	Low	9.708504938	High
Tagetes pringlei	0	Null	0.100963653	Low	0	Null	0.261905714	Low
Tagetes stenophylla	0	Null	0.014994602	Low	0	Null	0.622775801	Mid-low
Tagetes subulata	0.836820084	Low	0.052980927	Low	19.66527197	High	4.239473789	Mid-high
Theobroma cacao	1.408450704	Low	0.657763205	Mid-low	0	Null	0.61877724	Mid-low
Tripsacum dactyloides var. *hispidum*	22.03389831	High	5.431044824	Mid-high	0	Null	0.040985245	Low
Tripsacum intermedium	0	Null	0.467831581	Low	0	Null	0.23391579	Low
Tripsacum lanceolatum	0	Null	3.86160982	Mid-high	0	Null	4.558358991	Mid-high
Tripsacum laxum	0	Null	4.290455436	Mid-high	0	Null	0.559798473	Low
Tripsacum maizar	0	Null	2.787996321	Mid-high	0	Null	1.475468831	Mid-low
Tripsacum pilosum	9.302325581	Mid-high	2.985925067	Mid-high	6.976744186	Mid-low	4.350433844	Mid-high
Vanilla planifolia	0	Null	10.47922748	High	0	Null	4.634331641	High
Zea diploperennis	0	Null	3.132872166	Mid-high	0	Null	0.1519453	Low
Zea mays subsp. *mexicana*	0	Null	0.315886281	Low	0.85106383	Mid-low	1.097604862	Mid-low

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	Category 4				Category 5			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	0.006997481	Low	0	Null	0.239913631	Low
Zea perennis	0	Null	9.297652845	High	0	Null	7.446319325	High

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	Category 6				Category 7			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	0.405679513	Low	0.354872246	Low	18.66125761	High	7.618257427	High
Agave atrovirens	0	Null	0.660762126	Mid-low	0	Null	5.485025391	Mid-high
Agave congesta	0	Null	3.128873606	Mid-high	0	Null	11.35891079	High
Agave datylio	0	Null	0.059978408	Low	0	Null	0.253908593	Mid-low
Agave fourcroydes	7.894736842	Low	23.11867728	High	0	Null	1.321524251	Mid-low
Agave hiemiflora	0	Null	0.280898876	Mid-low	0	Null	18.35439242	High
Agave hurteri	0	Null	0.15494422	Low	0	Null	0.956655604	Mid-low
Agave karwinskii	0	Null	8.591906914	High	0	Null	5.948858411	High
Agave macroacantha	0	Null	3.112879363	Mid-high	0	Null	2.477108241	Mid-high
Agave macroculmis	0	Null	0.38286217	Low	0	Null	8.10308289	High
Agave rhodacantha	3.921568627	Mid-low	6.725578792	High	3.921568627	Mid-low	6.349714103	Mid-high
Agave seemanniana	0	Null	3.905593986	Mid-high	0	Null	4.54936223	Mid-high
Agave sisalana	0	Null	9.64652725	High	0	Null	0.190931265	Low
Agave tequilana	0	Null	0.964652725	Mid-low	0	Null	0.103962573	Low
Amaranthus australis	0	Null	4.199488184	Mid-high	0	Null	0.596785157	Mid-low
Amaranthus blitoides	0	Null	1.381502659	Mid-high	15.38461538	Mid-low	0.589787676	Mid-low
Amaranthus caudatus	0	Null	3.329801272	Mid-high	0	Null	3.030908873	Mid-high
Amaranthus cruentus	4.761904762	Mid-low	1.125594786	Mid-low	4.761904762	Mid-low	13.54812268	High
Amaranthus dubius	0	Null	0.011995682	Low	63.26530612	High	10.21232356	High
Amaranthus fimbriatus	0	Null	2.444120117	Mid-high	0	Null	0.296893118	Mid-low
Amaranthus greggii	0	Null	0.480826902	Low	23.68421053	Mid-high	6.887520493	Mid-high
Amaranthus hybridus	4.414003044	Mid-high	2.820984446	Mid-high	2.435312024	Mid-low	3.504738294	Mid-high
Amaranthus hypochondriacus	13.82978723	High	0.908672878	Mid-low	1.063829787	Low	0.427845975	Mid-low
Amaranthus palmeri	0	Null	0.284897437	Low	3.846153846	Mid-high	1.099604143	Mid-low
Amaranthus polygonoides	0	Null	3.605701947	Mid-high	0	Null	3.034907433	Mid-high
Amaranthus powellii	0	Null	1.021632212	Mid-low	48.93617021	High	10.90507417	High
Amaranthus scariosus	0	Null	0.00099964	Low	0	Null	8.40897277	High
Amaranthus spinosus	0	Null	12.95433644	High	0	Null	7.656243752	High
Amaranthus torreyi	2	Low	6.613619097	Mid-high	8	Mid-high	4.01455476	Mid-high
Annona cherimola	4.117647059	Mid-high	3.578711664	Mid-high	11.17647059	High	5.511016034	High
Annona glabra	39.05325444	High	9.282658243	High	0	Null	0.492822584	Low
Annona globiflora	6.434316354	High	0.837698429	Mid-low	46.64879357	High	6.767563677	High
Annona liebmanniana	0	Null	3.618697269	Mid-high	0	Null	0.366867928	Low

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	Category 6				Category 7			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	0	Null	3.85561198	Mid-high	0	Null	0.663761046	Mid-low
Annona macroprophyllata	0	Null	0.831700588	Mid-low	0	Null	7.659242673	High
Annona muricata	2.325581395	Mid-low	3.279819265	Mid-high	1.550387597	Low	7.397336959	High
Annona purpurea	4.62962963	Mid-low	3.328801631	Mid-high	0	Null	5.382062458	High
Annona reticulata	0.197238659	Low	0.30489024	Low	0.197238659	Low	0.320884482	Low
Annona squamosa	1.060070671	Low	7.87216602	High	0	Null	0.00299892	Low
Bixa orellana	0	Null	0.509816466	Mid-low	0	Null	6.370706546	Mid-high
Byrsonima crassifolia	0	Null	2.606061818	Mid-high	0	Null	3.366787956	Mid-high
Capsicum annuum var. *glabriusculum*	0.766283525	Low	0.056979487	Low	1.149425287	Mid-low	0.676756368	Mid-low
Capsicum frutescens	3.65535248	Mid-high	2.580071174	Mid-high	1.044386423	Mid-low	6.25374865	Mid-high
Carica papaya	0	Null	2.271182374	Mid-low	0	Null	2.39113919	Mid-low
Carya illinoinensis	0	Null	5.242112839	Mid-high	0	Null	0.089967612	Low
Carya ovata	0.99009901	Low	0.112959335	Low	41.58415842	High	4.3244432	Mid-high
Carya palmeri	0	Null	0.261905714	Low	0	Null	0.198928386	Low
Crataegus mexicana	0.401606426	Low	0.953656684	Mid-low	0	Null	8.836818745	High
Cucurbita argyrosperma	2.764976959	Mid-high	4.933224039	Mid-high	0	Null	0.017993522	Low
Cucurbita argyrosperma subsp. *sororia*	1.113585746	Mid-low	0.294893838	Low	0.445434298	Low	0.183933784	Low
Cucurbita cordata	0	Null	0.948658483	Mid-low	31.1827957	High	10.60118357	High
Cucurbita digitata	0	Null	2.93394378	Mid-low	0	Null	0.141948898	Low
Cucurbita foetidissima	21.90082645	High	8.687872366	High	2.066115702	Mid-high	4.584349634	Mid-high
Cucurbita lundelliana	0	Null	8.076092607	High	0	Null	0.451837339	Low
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	1.709384622	Mid-low	0	Null	1.727378144	Mid-high
Cucurbita palmata	0	Null	0.052980927	Low	0	Null	3.372785797	Mid-high
Cucurbita pedatifolia	2.352941176	Mid-low	0.061977688	Low	3.529411765	Mid-low	0.651765364	Low
Cucurbita pepo subsp. *fraterna*	0	Null	2.373145668	Mid-high	0	Null	2.052261186	Mid-high
Cucurbita radicans	0	Null	0.482826183	Mid-low	0	Null	10.30628974	High
Diospyros conzattii	0	Null	0.247910752	Mid-low	0	Null	0.892678636	Mid-low
Gossypium aridum	0	Null	2.483106082	Mid-low	1.904761905	Mid-low	8.56491663	High
Gossypium barbadense	0	Null	0.024991003	Low	0	Null	0.271902115	Low
Gossypium gossypioides	2.222222222	Low	0.800711744	Mid-low	0	Null	0.056979487	Low

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	Category 6				Category 7			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0	Null	0.006997481	Low	2.145411204	Mid-high	4.082530289	Mid-high
Gossypium thurberi	5.128205128	Low	3.599704107	Mid-high	5.128205128	Low	1.670398656	Mid-low
Helianthus laciniatus	4	Mid-high	3.358790835	Mid-high	2	Mid-low	3.038905994	Mid-high
Helianthus niveus	0	Null	0.742732616	Mid-low	0	Null	0.105961854	Low
Hylocereus ocamponis	0	Null	3.411771762	Mid-high	6.382978723	Mid-low	5.566995881	Mid-high
Ipomoea batatas	0.41322314	Low	0.897676836	Mid-low	2.066115702	Mid-low	12.60946059	High
Ipomoea tiliacea	3.703703704	Mid-high	1.025630773	Mid-low	3.703703704	Mid-high	2.043264425	Mid-high
Ipomoea trifida	0	Null	0.028989564	Low	2.606635071	Mid-high	3.196849134	Mid-high
Ipomoea triloba	0	Null	10.76312527	High	0	Null	0.284897437	Low
Jacaratia dolichaula	0	Null	0.38286217	Mid-low	0	Null	11.19097125	High
Jacaratia mexicana	13.33333333	High	14.70470631	High	0	Null	0.013994962	Low
Jarilla heterophylla	0	Null	7.552281179	High	7.272727273	Mid-high	5.104162501	Mid-high
Jatropha andrieuxii	5.882352941	Low	7.768203447	High	0	Null	0.92866568	Mid-low
Jatropha mcvaughii	0	Null	1.129593346	Mid-low	0	Null	6.518653285	Mid-high
Leucaena confertiflora	0	Null	2.667039866	Mid-high	2.083333333	Low	0.235915071	Low
Leucaena diversifolia	2.934537246	Low	0.944659922	Mid-low	8.35214447	High	0.61677796	Mid-low
Leucaena esculenta	0.409836066	Low	2.23519533	Mid-high	0	Null	2.570074773	Mid-high
Leucaena lanceolata	0	Null	0.744731897	Mid-low	1.054852321	Mid-low	14.50877684	High
Leucaena leucocephala	1.346801347	Mid-high	8.72086049	High	1.683501684	Mid-high	12.8463753	High
Manihot aesculifolia	0	Null	0.069974809	Low	1.793721973	Mid-low	4.711303931	Mid-high
Manihot angustiloba	0.8	Low	0.575792715	Mid-low	0.8	Low	1.740373466	Mid-low
Manihot caudata	1.785714286	Low	4.492382742	High	0	Null	0.00199928	Low
Manihot chlorosticta	1.408450704	Mid-low	23.23863409	High	0	Null	3.062897357	Mid-high
Manihot davisiae	0	Null	6.088808029	High	2.5	Low	0.792714623	Mid-low
Manihot foetida	7.142857143	Mid-low	2.031268743	Mid-high	21.42857143	Mid-high	4.09052741	Mid-high
Manihot michaelis	0	Null	3.522731817	Mid-high	0	Null	0.550801711	Mid-low
Manihot oaxacana	5.263157895	Mid-high	8.088088288	High	0.877192982	Low	1.922307969	Mid-high
Manihot pauciflora	10.16949153	High	3.787636451	Mid-high	8.474576271	Mid-high	1.074613139	Mid-low
Manihot pringlei	0	Null	0.656763565	Mid-low	0	Null	0.098964373	Low
Manihot rhomboidea	0	Null	0.767723619	Mid-low	1.020408163	Low	17.99652125	High
Manihot rhomboidea subsp. *microcarpa*	0	Null	3.569714903	Mid-high	1.5625	Low	0.661761766	Mid-low
Manihot rubricaulis	1.680672269	Low	2.62205606	Mid-high	0.840336134	Low	5.899876045	High

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	Category 6				Category 7			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	12	Mid-high	0.266903915	Low	0	Null	9.117717622	High
Manihot tomatophylla	0	Null	0.218921188	Low	0	Null	2.292174817	Mid-high
Manilkara chicle	0	Null	0.00299892	Low	0	Null	0.005997841	Low
Manilkara zapota	33.78076063	High	9.053740653	High	1.342281879	Mid-high	0.599784078	Mid-low
Opuntia atropes	3.846153846	Mid-low	7.399336239	High	28.84615385	High	3.478747651	Mid-high
Opuntia ficus-indica	0	Null	6.200767724	High	7.56302521	High	12.76040625	High
Opuntia hyptiacantha	2.205882353	Mid-low	1.630413051	Mid-low	0	Null	2.579071534	Mid-low
Opuntia lasiacantha	1.428571429	Low	6.076812348	High	4.285714286	Mid-low	2.445119757	Mid-high
Opuntia spinulifera	8	Mid-low	5.55599984	High	4	Low	0.109960414	Low
Opuntia streptacantha	2.755905512	Mid-high	6.183773841	High	0	Null	1.207565277	Mid-low
Opuntia undulata	0	Null	2.515094566	Mid-high	12.5	Mid-high	9.052741013	High
Opuntia velutina	0	Null	0.226918309	Low	2.985074627	Low	1.121596225	Mid-low
Pachyrhizus erosus	36.52173913	High	12.26958295	High	21.30434783	High	8.41297133	Mid-high
Persea americana	1.775147929	Mid-low	3.633691871	Mid-high	1.972386588	Mid-low	2.300171938	Mid-high
Persea schiedeana	0	Null	0.762725419	Mid-low	0	Null	2.166220161	Mid-high
Phaseolus acutifolius	3.99113082	Mid-high	7.349354232	High	1.77383592	Mid-low	0.884681515	Mid-low
Phaseolus acutifolius var. *acutifolius*	0	Null	1.022631853	Mid-low	0	Null	0.043984166	Low
Phaseolus acutifolius var. *tenuifolius*	2.912621359	Mid-low	1.550441841	Mid-low	2.912621359	Mid-low	2.682034468	Mid-high
Phaseolus coccineus	3.369565217	Mid-high	0.869686913	Mid-low	0.815217391	Mid-high	0.164940621	Low
Phaseolus coccineus subsp. *coccineus*	1.829268293	Mid-low	1.064616738	Mid-low	12.80487805	High	3.762645448	Mid-high
Phaseolus dumosus	0	Null	0.126954296	Low	18.91891892	High	1.39049942	Mid-low
Phaseolus filiformis	0.204498978	Low	1.201567436	Mid-low	0.204498978	Low	0.508816826	Low
Phaseolus maculatus subsp. *ritensis*	0	Null	0.54280459	Mid-low	0	Null	1.024631133	Mid-low
Phaseolus parvifolius	0	Null	10.27430125	High	0	Null	0.045983446	Low
Phaseolus vulgaris	0.704721635	Mid-low	0.395857491	Low	5.990133897	High	12.00767724	High
Physalis acutifolia	7.865168539	Mid-high	7.628253829	High	0	Null	0.881682594	Mid-low
Physalis ampla	26.66666667	High	25.53580711	High	0	Null	0.100963653	Low
Physalis angulata	2.564102564	Low	2.580071174	Mid-high	2.564102564	Low	3.248830421	Mid-high
Physalis crassifolia	0	Null	0.319884841	Low	0	Null	0.069974809	Low

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	Category 6				Category 7			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	0	Null	10.70914471	High	2.173913043	Low	0.595785517	Low
Physalis philadelphica	0.550964187	Low	1.638410172	Mid-low	16.80440771	High	6.305729937	High
Physalis sulphurea	3.636363636	Mid-high	1.069614939	Mid-low	29.09090909	High	24.49218281	High
Pinus ayacahuite	10.63829787	Mid-high	2.200207925	Mid-low	0	Null	1.31152785	Mid-low
Pinus cembroides	0	Null	5.604982206	High	0	Null	0.358870807	Low
Pithecellobium dulce	0.401146132	Mid-low	11.62181615	High	0.515759312	Mid-low	1.587428526	Mid-low
Porophyllum gracile	0	Null	0.056979487	Low	0	Null	0.655763925	Mid-low
Porophyllum linaria	0	Null	4.444400016	Mid-high	0	Null	10.45323683	High
Porophyllum ruderale	18.35748792	High	9.022751809	High	10.62801932	High	4.062537487	Mid-high
Porophyllum scoparium	0	Null	0.757727218	Mid-low	0	Null	2.918949178	Mid-high
Pouteria campechiana	2.51572327	Mid-low	5.384061738	Mid-high	3.773584906	Mid-high	7.494302051	High
Pouteria durlandii	0	Null	0.852693031	Mid-low	0	Null	0.003998561	Low
Pouteria reticulata	0	Null	2.722020073	Mid-high	0	Null	3.386780759	Mid-high
Pouteria sapota	16.66666667	High	7.521292335	High	7.142857143	Mid-high	1.032628254	Mid-low
Psidium guajava	18.46689895	High	9.529569355	High	6.968641115	Mid-high	3.839617738	Mid-high
Psidium guineense	0	Null	2.348154664	Mid-low	0	Null	10.53520733	High
Psidium oligospermum	1.714285714	Mid-low	1.646407293	Mid-low	0	Null	0.286896717	Low
Salvia axillaris	0	Null	5.496021432	High	0	Null	0.017993522	Low
Salvia carnea	0	Null	0.00199928	Low	0	Null	0.799712104	Mid-low
Salvia cinnabarina	0	Null	6.71558239	Mid-high	0	Null	2.453116878	Mid-low
Salvia coccinea	5	Mid-high	0.421848135	Mid-low	0	Null	0.003998561	Low
Salvia columbariae	0	Null	0.38386181	Low	0	Null	0.171938102	Low
Salvia elegans	2.821869489	Mid-high	12.04566356	High	24.1622575	High	4.762285577	Mid-high
Salvia fluviatilis	0	Null	4.943220441	Mid-high	0	Null	1.137590467	Mid-low
Salvia helianthemifolia	0	Null	5.465032588	Mid-high	0	Null	0.447838778	Mid-low
Salvia hispanica	0	Null	5.989843656	Mid-high	11.81102362	Mid-high	4.042544684	Mid-high
Salvia laevis	0	Null	0.147946739	Mid-low	0	Null	2.601063617	Mid-high
Salvia lasiantha	30	High	5.209124715	Mid-high	15	Mid-high	3.86160982	Mid-high
Salvia lasiocephala	17.9245283	High	3.23783438	Mid-high	5.660377358	Mid-high	1.575432844	Mid-low
Salvia longispicata	0	Null	0.185933064	Low	0	Null	8.338997961	High
Salvia mexicana	12.43243243	Mid-high	16.61501859	High	0	Null	4.617337758	High
Salvia microphylla	0	Null	0.377863969	Mid-low	2.919708029	Mid-high	1.028629693	Mid-low
Salvia misella	1.801801802	Mid-low	2.504098525	Mid-high	1.801801802	Mid-low	1.635411252	Mid-low

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	Category 6				Category 7			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	0	Null	1.632412332	Mid-low	0.952380952	Low	0.204926227	Low
Salvia occidentalis	1.449275362	Mid-low	0.92266784	Mid-low	0	Null	0.084969411	Low
Salvia patens	0	Null	0.048982366	Low	0	Null	0.134951417	Low
Salvia polystachia	0.925925926	Low	3.646687193	Mid-high	13.88888889	High	7.548282618	High
Salvia prunelloides	13.20754717	High	4.265464433	Mid-high	0	Null	2.249190291	Mid-low
Salvia purpurea	4.738154613	High	1.193570315	Mid-high	0.498753117	Low	0.15394458	Mid-low
Salvia regla	0	Null	0.603782638	Low	0	Null	6.311727778	High
Salvia sanctae-luciae	0	Null	7.026470471	High	0	Null	2.207205406	Mid-high
Salvia setulosa	0	Null	0.270902475	Low	0	Null	0.474829062	Mid-low
Salvia thyrsiflora	0	Null	0.00099964	Low	33.58778626	High	7.649246271	High
Salvia tiliifolia	4.411764706	Mid-high	1.013635091	Mid-low	6.764705882	High	3.264824663	Mid-high
Sechium chinantlense	38.0952381	High	1.781358711	Mid-low	0	Null	0.548802431	Low
Sechium compositum	0	Null	2.479107521	Mid-low	0	Null	1.671398297	Mid-low
Sechium edule subsp. *sylvestre*	0	Null	1.351513455	Mid-low	0	Null	7.800191931	High
Sechium hintonii	0	Null	1.651405494	Mid-low	38.46153846	Mid-low	2.611060018	Mid-high
Simmondsia chinensis	0	Null	0.197928746	Low	0	Null	5.17313767	Mid-high
Solanum bulbocastanum	0	Null	3.092886561	Mid-high	0.453514739	Low	12.82538286	High
Solanum cardiophyllum	7.083333333	High	1.679395418	Mid-low	0	Null	3.08488944	Mid-high
Solanum demissum	1.17820324	Mid-low	6.339717702	High	0	Null	0.366867928	Low
Solanum ehrenbergii	0	Null	0.238913991	Low	0	Null	0.339877644	Low
Solanum hjertingii	2.5	Mid-low	5.268103483	High	0	Null	3.901595426	Mid-high
Solanum hougasii	0	Null	9.671518253	High	1.162790698	Low	6.504658323	Mid-high
Solanum iopetalum	0.529100529	Low	0.445839498	Low	0	Null	2.831980487	Mid-high
Solanum morelliforme	12	Mid-high	0.599784078	Mid-low	0.8	Low	1.915310488	Mid-low
Solanum oxycarpum	0	Null	0.837698429	Mid-low	1.234567901	Low	4.557359351	Mid-high
Solanum pinnatisectum	0	Null	0.122955736	Low	0	Null	0.061977688	Low
Solanum polyadenium	10.34482759	High	6.591627014	Mid-high	0	Null	0.011995682	Low
Solanum schenckii	0	Null	0.782718221	Mid-low	5.172413793	Mid-low	0.740733336	Mid-low
Solanum stenophyllidium	1.234567901	Low	9.271662202	High	27.16049383	High	12.26458475	High
Solanum stoloniferum	0.331125828	Mid-low	3.479747291	Mid-high	8.029801325	High	2.132232396	Mid-low
Solanum tarnii	0	Null	0.057979128	Low	2.631578947	Low	7.02347155	High
Solanum trifidum	0	Null	0.067975529	Low	0	Null	0.287896357	Low
Solanum verrucosum	0	Null	0.051981287	Low	35.63218391	High	6.495661562	High

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	Category 6				Category 7			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Spondias mombin	0	Null	0.951657403	Mid-low	0.4784689	Low	6.794553961	High
Spondias purpurea	8.994708995	Mid-high	4.570354672	Mid-high	2.116402116	Mid-low	0.061977688	Low
Stenocereus alamosensis	73.80952381	High	18.28141869	High	0	Null	0.258906794	Low
Stenocereus beneckei	16	Mid-high	8.988764045	High	0	Null	1.972289976	Mid-high
Stenocereus eruca	4.347826087	Low	3.014914631	Mid-high	65.2173913	High	5.221120397	Mid-high
Stenocereus fricii	0	Null	0.018993162	Low	0	Null	0.07397337	Low
Stenocereus griseus	48	High	8.252029269	High	0	Null	0.264904634	Low
Stenocereus gummosus	0	Null	0.213922988	Low	0	Null	0.299892039	Low
Stenocereus montanus	0	Null	4.409412611	Mid-high	0	Null	2.354152505	Mid-low
Stenocereus pruinosus	0	Null	0.77372146	Mid-low	4	Mid-high	1.904314447	Mid-low
Stenocereus queretaroensis	0	Null	3.584709505	Mid-low	0	Null	3.991563037	Mid-high
Stenocereus stellatus	0	Null	7.118437363	High	0	Null	11.59682514	High
Stenocereus thurberi	1.315789474	Low	0.361869727	Low	0	Null	2.231196769	Mid-low
Stenocereus treleasei	26.31578947	Mid-high	3.804630333	Mid-high	0	Null	0.938662082	Mid-high
Tagetes erecta	0	Null	14.61173977	High	0	Null	0.435843096	Low
Tagetes filifolia	3.592814371	Mid-high	0.132952137	Low	0.598802395	Low	0.194929825	Low
Tagetes foetidissima	0	Null	0.114958615	Low	0	Null	0.707745212	Mid-low
Tagetes lucida	0.223713647	Low	0.275900676	Low	1.118568233	Mid-low	0.495821504	Mid-low
Tagetes micrantha	0	Null	3.906593626	Mid-high	0.778210117	Low	3.224839058	Mid-high
Tagetes pringlei	0	Null	0.094965812	Low	0	Null	0.351873326	Low
Tagetes stenophylla	0	Null	0.180934863	Low	0	Null	0.245911472	Low
Tagetes subulata	15.06276151	High	5.066176177	High	0.836820084	Low	0.058978768	Low
Theobroma cacao	0	Null	0.042984526	Low	67.6056338	High	17.09384622	High
Tripsacum dactyloides var. *hispidum*	14.40677966	Mid-high	8.942780599	High	7.627118644	Mid-low	3.77764005	Mid-high
Tripsacum intermedium	20	Mid-high	0.403854612	Low	20	Mid-high	1.969291055	Mid-high
Tripsacum lanceolatum	0	Null	0.175936663	Low	0	Null	0.703746651	Mid-low
Tripsacum laxum	0	Null	0.673757447	Low	0	Null	4.599344236	Mid-high
Tripsacum maizar	0	Null	0.368867208	Low	0	Null	2.452117238	Mid-high
Tripsacum pilosum	0	Null	2.576072614	Mid-high	30.23255814	Mid-high	2.402135231	Mid-low
Vanilla planifolia	0	Null	3.16286137	Mid-high	0	Null	13.52613059	High
Zea diploperennis	0	Null	14.47079052	High	0	Null	7.599264265	High
Zea mays subsp. *mexicana*	0	Null	0.162941341	Low	0	Null	0.114958615	Low

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	Category 6				Category 7			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	0.059978408	Low	0	Null	0.060978048	Low
Zea perennis	0	Null	4.599344236	Mid-high	0	Null	8.140069575	High

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	Category 8				Category 9			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	5.070993915	Mid-high	6.24875045	High	2.028397566	Mid-low	1.127594066	Mid-low
Agave atrovirens	0	Null	4.349434204	Mid-high	0	Null	7.037466512	High
Agave congesta	0	Null	8.149066336	High	9.090909091	Low	3.099884042	Mid-high
Agave datylio	0	Null	0.22891759	Low	0	Null	0.788716062	Mid-low
Agave fourcroydes	0	Null	1.843336399	Mid-high	0	Null	2.822983726	Mid-high
Agave hiemiflora	0	Null	9.41461074	High	0	Null	0.196929106	Low
Agave hurteri	0	Null	1.300531809	Mid-high	0	Null	1.895317686	Mid-high
Agave karwinskii	0	Null	3.519732896	Mid-high	0	Null	13.77104242	High
Agave macroacantha	0	Null	10.58718861	High	0	Null	0.392858571	Low
Agave macroculmis	0	Null	6.892518693	High	0	Null	1.344515974	Mid-low
Agave rhodacantha	0	Null	9.402615059	High	5.882352941	Mid-high	7.977128234	High
Agave seemanniana	0	Null	7.732216402	High	0	Null	5.764924627	Mid-high
Agave sisalana	0	Null	1.678395778	Mid-low	0	Null	1.084609541	Mid-low
Agave tequilana	0	Null	0.196929106	Low	0	Null	0.023991363	Low
Amaranthus australis	10	Mid-high	11.55284098	High	6.666666667	Low	5.725938662	Mid-high
Amaranthus blitoides	0	Null	0.38486145	Mid-low	0	Null	0.786716782	Mid-low
Amaranthus caudatus	4.761904762	Low	11.84073733	High	0	Null	2.215202527	Mid-high
Amaranthus cruentus	1.587301587	Low	0.372865768	Low	17.46031746	High	7.056459675	High
Amaranthus dubius	2.040816327	Low	7.843176456	High	0	Null	0.143948179	Low
Amaranthus fimbriatus	0	Null	2.217201807	Mid-high	2.040816327	Low	4.174497181	Mid-high
Amaranthus greggii	1.315789474	Low	2.511096005	Mid-low	52.63157895	High	11.63881003	High
Amaranthus hybridus	7.762557078	High	3.216841937	Mid-high	2.435312024	Mid-low	1.616418089	Mid-low
Amaranthus hypochondriacus	5.319148936	Mid-high	1.091607021	Mid-low	2.127659574	Low	0.392858571	Low
Amaranthus palmeri	4.326923077	Mid-high	3.621696189	Mid-high	0	Null	0.072973729	Low
Amaranthus polygonoides	22.58064516	High	9.933423967	High	0	Null	7.422327962	High
Amaranthus powellii	2.127659574	Mid-high	3.866608021	Mid-high	27.65957447	High	9.49458195	High
Amaranthus scariosus	0	Null	5.761925707	Mid-high	0	Null	0.031988484	Low
Amaranthus spinosus	0	Null	0.019992803	Low	0.434782609	Low	12.14662721	High
Amaranthus torreyi	26	High	9.125714743	High	26	High	7.305370067	High
Annona cherimola	11.76470588	High	2.398136671	Mid-high	5.294117647	Mid-high	1.506457675	Mid-low
Annona glabra	0	Null	0.991643009	Mid-low	0	Null	0.61477868	Low
Annona globiflora	0	Null	0.235915071	Low	4.557640751	Mid-high	7.799192291	High
Annona liebmanniana	0	Null	3.199848055	Mid-high	0	Null	0.61977688	Mid-low

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	Category 8				Category 9			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	0	Null	1.247550882	Mid-low	0	Null	3.814626734	Mid-high
Annona macroprophyllata	0	Null	9.626534448	High	0	Null	3.477748011	Mid-high
Annona muricata	0	Null	0.047982726	Low	2.325581395	Mid-low	2.660042385	Mid-high
Annona purpurea	0	Null	0.861689792	Mid-low	0	Null	2.416130193	Mid-high
Annona reticulata	1.972386588	Mid-low	0.46283338	Low	2.958579882	Mid-high	0.956655604	Mid-low
Annona squamosa	0	Null	0.667759607	Mid-low	0	Null	0.425846695	Low
Bixa orellana	0	Null	6.244751889	Mid-high	0	Null	7.077452117	High
Byrsonima crassifolia	0	Null	9.909432604	High	0	Null	7.845175737	High
Capsicum annuum var. *glabriusculum*	1.149425287	Mid-low	1.0836099	Mid-low	0.766283525	Low	12.25258907	High
Capsicum frutescens	7.571801567	High	6.814546763	High	0	Null	1.574433204	Mid-low
Carica papaya	0	Null	0.92866568	Mid-low	0	Null	0.214922628	Low
Carya illinoinensis	6.474820144	Mid-high	3.560718141	Mid-high	2.877697842	Mid-low	3.759646527	Mid-high
Carya ovata	0	Null	5.616977888	Mid-high	0	Null	0.089967612	Low
Carya palmeri	2.380952381	Low	5.597984725	Mid-high	35.71428571	High	1.948298612	Mid-low
Crataegus mexicana	0	Null	8.351993282	High	0	Null	1.361509856	Mid-low
Cucurbita argyrosperma	0.921658986	Low	0.389859651	Low	0.460829493	Low	0.891678996	Mid-low
Cucurbita argyrosperma subsp. *sororia*	0.890868597	Low	0.511815746	Mid-low	1.781737194	Mid-low	1.012635451	Mid-low
Cucurbita cordata	27.95698925	High	3.967571674	Mid-high	16.12903226	High	8.689871646	High
Cucurbita digitata	30.68181818	High	17.2927746	High	4.545454545	Low	6.623615498	Mid-high
Cucurbita foetidissima	3.719008264	Mid-high	2.047262985	Mid-high	1.652892562	Mid-low	1.285537207	Mid-low
Cucurbita lundelliana	0	Null	0.509816466	Mid-low	0	Null	2.535087369	Mid-high
Cucurbita okeechobeensis subsp. *martinezii*	0.877192982	Low	6.377704027	Mid-high	0.877192982	Low	2.615058579	Mid-high
Cucurbita palmata	0	Null	4.40041585	Mid-high	0	Null	0.025990643	Low
Cucurbita pedatifolia	0	Null	0.267903555	Low	0	Null	3.54872246	Mid-high
Cucurbita pepo subsp. *fraterna*	0	Null	0.008996761	Low	0	Null	0.783717862	Mid-low
Cucurbita radicans	37.34939759	High	19.5719541	High	0	Null	0.787716422	Mid-low
Diospyros conzattii	0	Null	2.538086289	Mid-high	0	Null	0.058978768	Low
Gossypium aridum	0	Null	2.827981927	Mid-high	0	Null	0.470830501	Mid-low
Gossypium barbadense	1.298701299	Low	0.139949618	Low	0	Null	0.00299892	Low
Gossypium gossypioides	2.222222222	Low	1.180574993	Mid-low	0	Null	13.12727418	High

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	Category 8				Category 9			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	1.072705602	Mid-low	1.762365548	Mid-high	0.715137068	Mid-low	1.593426367	Mid-low
Gossypium thurberi	0	Null	0.611779759	Mid-low	0	Null	0.339877644	Low
Helianthus laciniatus	5	Mid-high	4.503378784	Mid-high	0	Null	1.211563837	Mid-low
Helianthus niveus	0	Null	0.103962573	Low	0	Null	0.23291615	Low
Hylocereus ocamponis	0	Null	0.674757087	Mid-low	0	Null	0.718741253	Mid-low
Ipomoea batatas	0.41322314	Low	2.801991283	Mid-high	0	Null	3.985565197	Mid-high
Ipomoea tiliacea	3.174603175	Mid-high	6.232756208	High	3.174603175	Mid-high	2.525090967	Mid-high
Ipomoea trifida	1.421800948	Mid-low	4.32144428	Mid-high	0	Null	0.188931984	Low
Ipomoea triloba	0	Null	0.30988844	Low	0.497512438	Low	2.361149986	Mid-low
Jacaratia dolichaula	0	Null	3.014914631	Mid-high	0	Null	8.0211124	High
Jacaratia mexicana	0.512820513	Low	0.322883762	Low	0	Null	0.238913991	Low
Jarilla heterophylla	9.090909091	Mid-high	2.16322124	Mid-low	1.818181818	Low	2.680035187	Mid-low
Jatropha andrieuxii	5.882352941	Low	5.798912392	Mid-high	0	Null	0.841696989	Mid-low
Jatropha mcvaughii	33.33333333	High	4.779279459	Mid-high	0	Null	8.325002999	High
Leucaena confertiflora	0	Null	0.197928746	Low	0	Null	0.082970131	Low
Leucaena diversifolia	7.674943567	High	0.793714263	Mid-low	4.740406321	Mid-low	0.275900676	Low
Leucaena esculenta	0	Null	0.302890959	Low	0.204918033	Low	0.333879803	Low
Leucaena lanceolata	2.742616034	Mid-high	14.16989884	High	0.210970464	Low	2.917949538	Mid-high
Leucaena leucocephala	0.448933782	Mid-low	1.923307609	Mid-low	0	Null	0.320884482	Low
Manihot aesculifolia	4.932735426	Mid-high	3.747650846	Mid-high	0	Null	0.175936663	Low
Manihot angustiloba	2.4	Mid-low	9.330640969	Mid-high	1.6	Low	10.14634731	High
Manihot caudata	0	Null	0.875684753	Mid-low	0	Null	0.810708145	Low
Manihot chlorosticta	6.572769953	High	5.845895478	High	1.408450704	Mid-low	10.51121596	High
Manihot davisiae	0	Null	3.509736495	Mid-high	2.5	Low	7.40633372	High
Manihot foetida	0	Null	1.348514535	Mid-low	10.71428571	Mid-high	4.750289896	Mid-high
Manihot michaelis	0	Null	0.139949618	Low	0	Null	0.296893118	Low
Manihot oaxacana	0	Null	2.020272702	Mid-high	1.754385965	Mid-low	0.860690152	Low
Manihot pauciflora	0	Null	2.891958895	Mid-high	1.694915254	Low	4.006557639	High
Manihot pringlei	8.163265306	Mid-high	8.479947219	High	6.12244898	Mid-low	7.690231517	High
Manihot rhomboidea	1.020408163	Low	2.368147467	Mid-low	1.020408163	Low	5.432044464	High
Manihot rhomboidea subsp. *microcarpa*	0	Null	0.177935943	Low	0	Null	0.252908953	Low
Manihot rubricaulis	3.361344538	Mid-low	2.177216202	Mid-low	4.201680672	Mid-high	2.418129473	Mid-low

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	Category 8				Category 9			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	0	Null	6.800551801	Mid-high	0	Null	0.293894198	Low
Manihot tomatophylla	0	Null	2.105242113	Mid-low	0	Null	2.818985165	Mid-high
Manilkara chicle	0	Null	13.16925907	High	0	Null	0.124955016	Mid-low
Manilkara zapota	0.447427293	Mid-low	0.522811788	Mid-low	0.447427293	Mid-low	0.335879084	Low
Opuntia atropes	0	Null	1.116598025	Mid-low	23.07692308	High	2.956935503	Mid-high
Opuntia ficus-indica	3.361344538	Mid-high	7.623255628	High	4.201680672	Mid-high	4.454396417	Mid-high
Opuntia hyptiacantha	0	Null	3.918589308	Mid-high	0.735294118	Low	4.048542525	Mid-high
Opuntia lasiacantha	0	Null	0.395857491	Low	0.714285714	Low	2.168219441	Mid-low
Opuntia spinulifera	0	Null	1.228557719	Mid-low	0	Null	1.409492583	Mid-low
Opuntia streptacantha	0.393700787	Low	2.893958175	Mid-high	0	Null	4.605342077	Mid-high
Opuntia undulata	6.25	Low	4.746291335	Mid-high	0	Null	1.660402255	Mid-low
Opuntia velutina	11.94029851	Mid-high	1.363509137	Mid-low	4.47761194	Mid-low	4.458394978	Mid-high
Pachyrhizus erosus	0	Null	0.497820785	Low	0	Null	2.865968251	Mid-high
Persea americana	4.142011834	Mid-high	1.684393618	Mid-low	3.747534517	Mid-high	2.712023671	Mid-high
Persea schiedeana	0	Null	7.542284777	High	0	Null	0.342876564	Low
Phaseolus acutifolius	1.55210643	Mid-low	0.554800272	Low	1.99556541	Mid-low	2.583070095	Mid-high
Phaseolus acutifolius var. *acutifolius*	0.294117647	Low	0.293894198	Mid-low	0	Null	0.096965093	Low
Phaseolus acutifolius var. *tenuifolius*	2.912621359	Mid-low	0.46283338	Low	4.854368932	Mid-high	0.583789836	Mid-low
Phaseolus coccineus	0.652173913	Mid-low	0.312887361	Low	1.032608696	Mid-high	0.211923707	Low
Phaseolus coccineus subsp. *coccineus*	0.609756098	Low	0.946659203	Mid-low	8.231707317	High	2.197209005	Mid-high
Phaseolus dumosus	22.2972973	High	1.624415211	Mid-low	0	Null	0.111959695	Low
Phaseolus filiformis	40.69529652	High	12.06065816	High	5.930470348	High	2.904954216	Mid-high
Phaseolus maculatus subsp. *ritensis*	4.6875	Mid-high	2.334159703	Mid-low	41.40625	High	25.56879523	High
Phaseolus parvifolius	3.614457831	Mid-high	11.2869367	High	1.204819277	Low	9.520572594	High
Phaseolus vulgaris	0.59901339	Mid-low	1.064616738	Mid-low	0.140944327	Low	0.237914351	Low
Physalis acutifolia	1.123595506	Low	0.683753849	Mid-low	0	Null	0.127953937	Low
Physalis ampla	0	Null	2.898956376	Mid-high	6.666666667	Low	3.3977768	Mid-high
Physalis angulata	29.48717949	High	9.551561438	High	5.128205128	Mid-high	11.91670998	High
Physalis crassifolia	7.692307692	Mid-low	2.183214043	Mid-high	7.692307692	Mid-low	0.608780839	Mid-low

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	Category 8				Category 9			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	0	Null	0.734735495	Mid-low	0	Null	0.085969051	Low
Physalis philadelphica	9.090909091	High	2.747011076	Mid-low	32.50688705	High	5.059178696	Mid-high
Physalis sulphurea	0	Null	1.268543324	Mid-high	60	High	9.674517174	High
Pinus ayacahuite	0	Null	3.217841577	Mid-high	0	Null	6.088808029	High
Pinus cembroides	0	Null	3.746651206	Mid-high	0.239808153	Low	2.70102763	Mid-high
Pithecellobium dulce	0.343839542	Low	3.850613779	Mid-high	0.687679083	Mid-low	2.485105362	Mid-high
Porophyllum gracile	0	Null	0.957655244	Mid-low	22.60273973	High	8.862809389	High
Porophyllum linaria	0	Null	6.881522652	High	0	Null	1.657403335	Mid-low
Porophyllum ruderale	0	Null	0.591786957	Mid-low	10.14492754	Mid-high	5.979847255	Mid-high
Porophyllum scoparium	2.409638554	Low	10.15934264	High	0	Null	7.548282618	High
Pouteria campechiana	0	Null	0.252908953	Low	7.547169811	High	4.332440321	Mid-high
Pouteria durlandii	0	Null	0.187932344	Low	2.631578947	Low	0.260906074	Low
Pouteria reticulata	0	Null	3.508736855	Mid-high	0	Null	1.041625015	Mid-low
Pouteria sapota	0	Null	0.440841297	Low	4.761904762	Mid-high	0.566795953	Low
Psidium guajava	2.43902439	Mid-low	3.190851294	Mid-high	8.710801394	High	2.977927946	Mid-high
Psidium guineense	0	Null	7.200407853	High	0	Null	4.437402535	Mid-high
Psidium oligospermum	5.714285714	High	0.241912911	Low	0	Null	0.176936303	Low
Salvia axillaris	0	Null	0.238913991	Low	0	Null	0.203926586	Low
Salvia carnea	4.918032787	Mid-low	7.199408213	Mid-high	0	Null	0.051981287	Low
Salvia cinnabarina	0	Null	0.624775081	Mid-low	0	Null	0.727738014	Mid-low
Salvia coccinea	2.5	Mid-low	0.333879803	Low	1.25	Mid-low	0.119956816	Low
Salvia columbariae	0	Null	0.588788036	Mid-low	0	Null	6.138790036	High
Salvia elegans	0	Null	0.022991723	Low	18.8712522	High	5.308089088	Mid-high
Salvia fluviatilis	20	Mid-high	5.977847975	Mid-high	30	High	3.368787237	Mid-high
Salvia helianthemifolia	0	Null	5.021192371	Mid-high	0	Null	3.673677476	Mid-high
Salvia hispanica	5.511811024	Mid-high	3.367787596	Mid-high	13.38582677	High	2.890959255	Mid-high
Salvia laevis	0	Null	5.801911312	Mid-high	0	Null	12.3655484	High
Salvia lasiantha	0	Null	0.425846695	Low	10	Mid-low	5.298092687	High
Salvia lasiocephala	0	Null	0.435843096	Low	13.20754717	High	6.076812348	Mid-high
Salvia longispicata	0	Null	10.9630533	High	0	Null	3.360790116	Mid-high
Salvia mexicana	0	Null	2.847974729	Mid-high	0	Null	13.75404854	High
Salvia microphylla	0	Null	0.022991723	Low	2.00729927	Mid-high	2.399136311	Mid-high
Salvia misella	4.504504505	Mid-high	2.577072254	Mid-high	0.900900901	Low	3.438762046	Mid-high

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	Category 8				Category 9			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	2.857142857	Mid-low	0.100963653	Low	0	Null	0.019992803	Low
Salvia occidentalis	0.483091787	Low	0.278899596	Low	0	Null	0.109960414	Low
Salvia patens	0	Null	0.679755288	Mid-low	0	Null	0.242912551	Low
Salvia polystachia	0	Null	0.224919029	Low	7.407407407	Mid-high	2.504098525	Mid-low
Salvia prunelloides	0	Null	6.832540285	High	0	Null	5.565996241	High
Salvia purpurea	0	Null	0.056979487	Low	0	Null	18.10148347	High
Salvia regla	0	Null	0.07397337	Low	0	Null	4.674317246	Mid-high
Salvia sanctae-luciae	84.61538462	Mid-high	6.183773841	Mid-high	0	Null	0.546803151	Mid-low
Salvia setulosa	0	Null	1.426486465	Mid-low	0	Null	1.934303651	Mid-high
Salvia thyrsiflora	8.396946565	Mid-low	5.774921028	Mid-high	0	Null	0.622775801	Mid-low
Salvia tiliifolia	8.529411765	High	5.676956296	High	4.117647059	Mid-high	0.903674677	Mid-low
Sechium chinantlense	19.04761905	Mid-high	1.269542965	Mid-low	9.523809524	Low	0.558798832	Low
Sechium compositum	18.51851852	High	5.2461114	Mid-high	0	Null	2.817985525	Mid-low
Sechium edule subsp. *sylvestre*	0	Null	12.18261426	High	6.451612903	Mid-low	1.754368427	Mid-low
Sechium hintonii	0	Null	3.559718501	Mid-high	46.15384615	High	4.833260026	High
Simmondsia chinensis	0	Null	5.723939382	High	0.546448087	Low	6.203766644	High
Solanum bulbocastanum	0	Null	3.302810988	Mid-high	0	Null	2.195209724	Mid-low
Solanum cardiophyllum	5.416666667	Mid-high	12.30357071	High	0	Null	3.690671358	Mid-high
Solanum demissum	0	Null	0.255907873	Low	0.736377025	Mid-low	0.844695909	Mid-low
Solanum ehrenbergii	0	Null	0.244911832	Low	0	Null	0.746731177	Mid-low
Solanum hjertingii	1.25	Low	1.110600184	Mid-low	1.25	Low	5.234115718	Mid-high
Solanum hougasii	1.162790698	Low	3.158862809	Mid-high	0	Null	9.282658243	High
Solanum iopetalum	0.793650794	Mid-low	11.64780679	High	0	Null	6.433683874	High
Solanum morelliforme	0	Null	0.08097085	Low	4	Mid-high	9.554560358	High
Solanum oxycarpum	0	Null	7.616258147	High	0	Null	9.33264025	High
Solanum pinnatisectum	0	Null	3.050901675	Mid-high	0	Null	0.595785517	Mid-low
Solanum polyadenium	58.62068966	High	9.218681275	High	7.75862069	High	12.56747571	High
Solanum schenckii	0	Null	0.141948898	Low	8.620689655	Mid-low	9.456595626	High
Solanum stenophyllidium	22.83950617	High	10.60918069	High	14.19753086	High	12.13962973	High
Solanum stoloniferum	1.158940397	Mid-high	0.986644808	Mid-low	3.80794702	High	2.578071894	Mid-high
Solanum tarnii	2.631578947	Low	8.494941821	High	0	Null	1.588428166	Mid-high
Solanum trifidum	0	Null	0.472829781	Mid-low	34.88372093	High	0.341876924	Mid-low
Solanum verrucosum	3.256704981	Mid-high	3.977568075	Mid-high	0	Null	0.081970491	Low

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	Category 8				Category 9			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Spondias mombin	0	Null	13.83501939	High	0	Null	0.025990643	Low
Spondias purpurea	5.82010582	Mid-high	0.823703467	Mid-low	3.174603175	Mid-low	0.873685473	Mid-low
Stenocereus alamosensis	0	Null	2.190211524	Mid-high	2.380952381	Low	1.332520293	Mid-low
Stenocereus beneckei	0	Null	5.899876045	High	0	Null	0.428845616	Mid-low
Stenocereus eruca	0	Null	5.050181935	Mid-high	17.39130435	Mid-high	10.02539086	High
Stenocereus fricii	0	Null	0.070974449	Low	0	Null	7.865168539	High
Stenocereus griseus	0	Null	3.865608381	Mid-high	26	High	6.553640689	High
Stenocereus gummosus	0	Null	0.084969411	Low	0	Null	0.102962933	Low
Stenocereus montanus	20.83333333	High	4.877244192	High	0	Null	1.779359431	Mid-low
Stenocereus pruinosus	15	High	11.1299932	High	5	Mid-high	3.405773921	Mid-high
Stenocereus queretaroensis	0	Null	0.186932704	Low	0	Null	2.610060378	Mid-low
Stenocereus stellatus	1.724137931	Low	3.047902755	Mid-high	0	Null	7.723219641	High
Stenocereus thurberi	0	Null	2.382142429	Mid-high	0	Null	0.511815746	Low
Stenocereus treleasei	10.52631579	Mid-low	0.853692671	Mid-low	21.05263158	Mid-high	6.341716982	High
Tagetes erecta	0.134952767	Low	0.30588988	Low	0	Null	4.098524531	Mid-high
Tagetes filifolia	1.19760479	Mid-low	11.56783558	High	0.598802395	Low	6.675596785	High
Tagetes foetidissima	5.102040816	Mid-low	0.429845256	Mid-low	0	Null	0.267903555	Low
Tagetes lucida	1.789709172	Mid-high	0.912671438	Mid-low	3.355704698	Mid-high	0.421848135	Mid-low
Tagetes micrantha	0	Null	0.487824383	Mid-low	0	Null	0.61377904	Mid-low
Tagetes pringlei	0	Null	0.77372146	Mid-low	0	Null	0.350873685	Low
Tagetes stenophylla	0	Null	1.430485025	Mid-low	0	Null	2.127234196	Mid-low
Tagetes subulata	16.73640167	High	4.623335599	High	16.73640167	High	4.016554041	Mid-high
Theobroma cacao	9.85915493	High	3.39577752	Mid-high	2.816901408	Mid-low	0.834699508	Mid-low
Tripsacum dactyloides var. *hispidum*	0.847457627	Low	0.954656324	Mid-low	0	Null	0.409852453	Low
Tripsacum intermedium	0	Null	14.60074373	High	10	Low	2.914950618	Mid-high
Tripsacum lanceolatum	0	Null	0.433843816	Low	0	Null	0.212923348	Low
Tripsacum laxum	0	Null	7.588268223	High	0	Null	3.305809908	Mid-high
Tripsacum maizar	0	Null	2.15822304	Mid-low	0	Null	2.191211164	Mid-low
Tripsacum pilosum	48.8372093	High	6.196769163	High	0	Null	2.413131273	Mid-high
Vanilla planifolia	0	Null	2.861969691	Mid-high	0	Null	4.613339198	Mid-high
Zea diploperennis	0	Null	1.026630413	Mid-high	0	Null	22.93874205	High
Zea mays subsp. *mexicana*	0	Null	0.339877644	Mid-low	0	Null	0.055979847	Low

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	Category 8				Category 9			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	0.896677196	Mid-low	0	Null	0.162941341	Low
Zea perennis	0	Null	11.60482226	High	0	Null	4.405414051	Mid-high

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	Category 10				Category 11			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	7.505070994	High	7.198408573	High	4.868154158	Mid-high	7.440321484	High
Agave atrovirens	0	Null	0.332880163	Low	0	Null	0.126954296	Low
Agave congesta	0	Null	0.751729377	Low	0	Null	1.816346115	Mid-low
Agave datylio	41.17647059	Mid-high	12.04566356	High	47.05882353	High	13.85301292	High
Agave fourcroydes	0	Null	0.15494422	Low	0	Null	0.069974809	Low
Agave hiemiflora	42.85714286	High	0.966652005	Mid-low	0	Null	0.84569555	Mid-low
Agave hurteri	0	Null	3.481746571	Mid-high	0	Null	0.628773641	Mid-low
Agave karwinskii	0	Null	0.093966172	Low	7.692307692	Low	2.972929745	Mid-high
Agave macroacantha	46.875	High	7.922148027	High	3.125	Low	0.875684753	Mid-low
Agave macroculmis	0	Null	1.377504099	Mid-low	13.04347826	Mid-high	5.877883962	High
Agave rhodacantha	0	Null	1.935303291	Mid-low	0	Null	0.589787676	Mid-low
Agave seemanniana	0	Null	0.515814307	Low	0	Null	0.38486145	Low
Agave sisalana	0	Null	6.801551441	Mid-high	46.15384615	High	9.311647807	High
Agave tequilana	9.090909091	Low	7.038466152	High	0	Null	1.115598385	Mid-low
Amaranthus australis	0	Null	0.07597265	Low	0	Null	0.066975889	Low
Amaranthus blitoides	0	Null	0.941661002	Mid-low	0	Null	2.862969331	Mid-high
Amaranthus caudatus	0	Null	1.360510216	Mid-low	0	Null	4.24147307	Mid-high
Amaranthus cruentus	0	Null	0.429845256	Low	0	Null	1.780359071	Mid-low
Amaranthus dubius	0	Null	11.75576792	High	0	Null	3.133871806	Mid-high
Amaranthus fimbriatus	32.65306122	High	5.234115718	High	0	Null	0.021992083	Low
Amaranthus greggii	0	Null	2.519093126	Mid-high	0	Null	0.569794874	Mid-low
Amaranthus hybridus	1.369863014	Mid-low	13.31320725	High	0.152207002	Low	3.340797313	Mid-high
Amaranthus hypochondriacus	0	Null	0.07997121	Low	0	Null	4.453396777	High
Amaranthus palmeri	5.288461538	Mid-high	16.90291495	High	3.365384615	Mid-low	2.176216562	Mid-high
Amaranthus polygonoides	0	Null	0.241912911	Low	0	Null	0.221920109	Low
Amaranthus powellii	0	Null	0.818705266	Mid-low	0	Null	0.635771122	Mid-low
Amaranthus scariosus	12.76595745	Mid-high	7.222399936	High	0	Null	7.625254908	High
Amaranthus spinosus	1.52173913	Mid-low	0.431844536	Mid-low	1.956521739	Mid-low	0.890679355	Mid-low
Amaranthus torreyi	0	Null	2.657043464	Mid-high	0	Null	1.903314807	Mid-low
Annona cherimola	0.588235294	Low	0.897676836	Mid-low	2.058823529	Mid-low	3.602703027	Mid-high
Annona glabra	0	Null	0.597784797	Low	0	Null	2.330161142	Mid-high
Annona globiflora	0.268096515	Low	9.742492703	High	0.536193029	Mid-low	21.61121996	High
Annona liebmanniana	29.16666667	High	10.66116198	High	20.83333333	High	2.883961774	Mid-high

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	Category 10				Category 11			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	0	Null	0.095965452	Low	0	Null	0.071974089	Low
Annona macroprophyllata	13.84615385	High	2.284177696	Mid-low	0	Null	5.273101683	Mid-high
Annona muricata	1.550387597	Low	0.378863609	Low	0	Null	0.00299892	Low
Annona purpurea	0	Null	16.13119277	High	0	Null	0.091966892	Low
Annona reticulata	0	Null	10.43024511	High	0	Null	3.429765284	Mid-high
Annona squamosa	0	Null	0.568795234	Mid-low	0	Null	2.660042385	Mid-low
Bixa orellana	0.36900369	Low	9.322643848	High	0	Null	1.581430685	Mid-low
Byrsonima crassifolia	0	Null	0.021992083	Low	0.649350649	Low	4.654324443	Mid-high
Capsicum annuum var. *glabriusculum*	0.383141762	Low	2.176216562	Mid-low	3.0651341	Mid-high	11.29593346	High
Capsicum frutescens	0	Null	0.115958255	Low	23.75979112	High	8.085089368	High
Carica papaya	3.716216216	Mid-high	2.516094206	Mid-high	8.445945946	Mid-high	3.753648686	Mid-high
Carya illinoinensis	0	Null	0.056979487	Low	1.438848921	Low	0.562797393	Mid-low
Carya ovata	0.99009901	Low	3.232836179	Mid-high	0	Null	10.44823863	High
Carya palmeri	0	Null	0.045983446	Low	0	Null	0.855691951	Mid-low
Crataegus mexicana	20.88353414	High	7.322363949	High	1.204819277	Mid-high	0.6177776	Low
Cucurbita argyrosperma	1.382488479	Mid-low	10.54120517	High	0.460829493	Low	9.10672158	High
Cucurbita argyrosperma subsp. *sororia*	1.113585746	Mid-low	8.005118157	High	1.336302895	Mid-low	3.730656963	Mid-high
Cucurbita cordata	1.075268817	Low	9.171698189	High	0	Null	1.170578592	Mid-high
Cucurbita digitata	15.90909091	Mid-low	3.845615578	Mid-low	0	Null	0.576792355	Mid-low
Cucurbita foetidissima	0	Null	1.063617098	Mid-low	4.958677686	High	8.445959455	High
Cucurbita lundelliana	0	Null	1.721380303	Mid-low	0	Null	0.099964013	Low
Cucurbita okeechobeensis subsp. *martinezii*	28.07017544	High	6.79355432	High	6.140350877	Mid-high	0.985645168	Mid-low
Cucurbita palmata	35.13513514	Mid-high	10.6191771	High	43.24324324	High	10.49622136	High
Cucurbita pedatifolia	0	Null	6.784557559	High	0	Null	8.693870207	High
Cucurbita pepo subsp. *fraterna*	0	Null	1.408492943	Mid-low	0	Null	0.041984885	Low
Cucurbita radicans	0	Null	1.023631493	Mid-low	0	Null	15.708345	High
Diospyros conzattii	0	Null	0.428845616	Mid-low	0	Null	0.235915071	Low
Gossypium aridum	0	Null	0.283897797	Low	4.285714286	Mid-high	8.002119237	High
Gossypium barbadense	2.597402597	Mid-low	3.632692231	Mid-high	3.896103896	Mid-high	3.078891599	Mid-high
Gossypium gossypioides	0	Null	3.273821424	Mid-high	0	Null	3.31680595	Mid-high

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	Category 10				Category 11			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0.595947557	Mid-low	0.609780479	Mid-low	0.238379023	Low	0.409852453	Mid-low
Gossypium thurberi	0	Null	0.225918669	Low	0	Null	0.354872246	Mid-low
Helianthus laciniatus	1	Low	5.992842577	High	0	Null	2.270182734	Mid-high
Helianthus niveus	22.61904762	High	6.842536687	High	34.52380952	High	6.883521932	High
Hylocereus ocamponis	0	Null	0.170938462	Low	0	Null	0.088967972	Low
Ipomoea batatas	0.41322314	Low	0.135951058	Low	1.652892562	Mid-low	0.295893478	Low
Ipomoea tiliacea	0.529100529	Low	4.943220441	Mid-high	0.529100529	Low	13.08728858	High
Ipomoea trifida	0.236966825	Low	5.462033668	Mid-high	0.473933649	Low	6.368707265	High
Ipomoea triloba	24.87562189	High	8.349994002	High	32.33830846	High	9.321644208	High
Jacaratia dolichaula	0	Null	12.69043144	High	0	Null	0.07997121	Low
Jacaratia mexicana	0	Null	0.319884841	Low	11.28205128	Mid-high	4.922227998	High
Jarilla heterophylla	0	Null	12.69143108	High	0	Null	11.82074453	High
Jatropha andrieuxii	0	Null	0.054980207	Low	0	Null	0.174937023	Low
Jatropha mcvaughii	0	Null	7.261385901	High	0	Null	6.565636371	Mid-high
Leucaena confertiflora	16.66666667	Mid-high	3.090887281	Mid-high	4.166666667	Low	6.858530929	High
Leucaena diversifolia	5.869074492	Mid-high	4.072533888	Mid-high	5.191873589	Mid-low	1.405494022	Mid-high
Leucaena esculenta	0.409836066	Low	0.831700588	Mid-low	0	Null	0.766723979	Mid-low
Leucaena lanceolata	33.75527426	High	6.17077852	High	30.80168776	High	3.423767444	Mid-high
Leucaena leucocephala	0.112233446	Low	2.565076572	Mid-high	0.448933782	Mid-low	0.38686073	Low
Manihot aesculifolia	2.69058296	Mid-low	7.453316806	High	0	Null	3.257827182	Mid-high
Manihot angustiloba	3.2	Mid-low	0.844695909	Mid-low	3.2	Mid-low	2.70002799	Mid-high
Manihot caudata	4.464285714	Mid-high	2.126234556	Mid-low	16.07142857	High	2.002279179	Mid-low
Manihot chlorosticta	0.938967136	Low	2.410132352	Mid-high	1.408450704	Mid-low	1.206565636	Mid-low
Manihot davisiae	0	Null	0.030988844	Low	0	Null	0.498820425	Low
Manihot foetida	0	Null	11.01403495	High	0	Null	0.041984885	Low
Manihot michaelis	0	Null	0.561797753	Mid-low	0	Null	18.34539566	High
Manihot oaxacana	0	Null	1.480467032	Mid-low	0	Null	0.586788756	Low
Manihot pauciflora	0	Null	1.08061098	Mid-low	0	Null	0.640769323	Low
Manihot pringlei	0	Null	4.930225119	Mid-high	14.28571429	High	1.62341557	Mid-low
Manihot rhomboidea	1.020408163	Low	2.275180935	Mid-low	0	Null	5.316086209	Mid-high
Manihot rhomboidea subsp. *microcarpa*	7.8125	Mid-low	1.864328842	Mid-low	12.5	Mid-high	5.531008837	High
Manihot rubricaulis	0	Null	4.78627694	High	0	Null	0.639769683	Low

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	Category 10				Category 11			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	0	Null	1.7013875	Mid-high	0	Null	3.887600464	Mid-high
Manihot tomatophylla	9.523809524	Mid-high	1.344515974	Mid-low	2.380952381	Low	6.895517614	High
Manilkara chicle	15.38461538	Mid-high	1.603422768	Mid-high	74.35897436	High	13.9049942	High
Manilkara zapota	0	Null	2.498100684	Mid-high	0.447427293	Mid-low	0.147946739	Low
Opuntia atropes	0	Null	4.369427006	Mid-high	0	Null	0.627774001	Mid-low
Opuntia ficus-indica	2.521008403	Mid-high	3.136870727	Mid-high	2.521008403	Mid-high	5.388060298	High
Opuntia hyptiacantha	0.735294118	Low	0.664760686	Low	0	Null	0.408852813	Low
Opuntia lasiacantha	5.714285714	Mid-high	1.892318765	Mid-low	40	High	7.032468311	High
Opuntia spinulifera	0	Null	0.245911472	Low	0	Null	3.630692951	Mid-high
Opuntia streptacantha	0.393700787	Low	0.179935223	Low	0	Null	3.446759167	Mid-high
Opuntia undulata	0	Null	0.163940981	Low	0	Null	0.331880523	Low
Opuntia velutina	0	Null	0.200927666	Low	7.462686567	Mid-high	0.935663161	Mid-low
Pachyrhizus erosus	0	Null	2.333160062	Mid-low	0	Null	13.59410612	High
Persea americana	5.325443787	High	0.265904274	Low	11.63708087	High	1.172577872	Mid-low
Persea schiedeana	0	Null	1.728377784	Mid-low	0	Null	15.97624855	High
Phaseolus acutifolius	2.2172949	Mid-high	9.460594186	High	1.33037694	Low	2.559078732	Mid-low
Phaseolus acutifolius var. *acutifolius*	2.058823529	Mid-low	2.54408413	Mid-high	5.294117647	Mid-low	4.754288456	Mid-high
Phaseolus acutifolius var. *tenuifolius*	0	Null	1.703386781	Mid-high	0	Null	12.09064737	High
Phaseolus coccineus	0.217391304	Low	2.462113639	Mid-low	0.706521739	Mid-low	0.992642649	Mid-low
Phaseolus coccineus subsp. *coccineus*	0.304878049	Low	1.106601623	Mid-low	1.219512195	Mid-low	7.239393818	High
Phaseolus dumosus	6.081081081	Mid-low	6.273741453	High	14.86486486	High	9.434603543	High
Phaseolus filiformis	0.204498978	Low	0.917669639	Mid-low	0	Null	1.947298972	Mid-high
Phaseolus maculatus subsp. *ritensis*	1.5625	Low	4.571354312	Mid-high	2.34375	Mid-low	17.56567636	High
Phaseolus parvifolius	3.614457831	Mid-high	2.714022952	Mid-high	34.93975904	High	8.011115998	High
Phaseolus vulgaris	28.25933756	High	5.972849774	High	2.501761804	Mid-high	1.411491863	Mid-high
Physalis acutifolia	4.494382022	Mid-low	2.820984446	Mid-high	0	Null	0.510816106	Low
Physalis ampla	0	Null	0.747730817	Mid-low	6.666666667	Low	14.50577792	High
Physalis angulata	0	Null	0.007997121	Low	0	Null	0.00199928	Low
Physalis crassifolia	0	Null	0.194929825	Low	0	Null	0.178935583	Low

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	Category 10				Category 11			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	2.173913043	Low	2.115238514	Mid-low	0	Null	2.477108241	Mid-low
Physalis philadelphica	1.377410468	Mid-low	0.281898517	Low	2.754820937	Mid-high	0.814706706	Mid-low
Physalis sulphurea	0	Null	3.889599744	Mid-high	0	Null	7.664240873	High
Pinus ayacahuite	0	Null	0.389859651	Mid-low	2.127659574	Low	4.460394258	Mid-high
Pinus cembroides	5.755395683	High	14.03394778	High	38.84892086	High	11.93670279	High
Pithecellobium dulce	0.171919771	Low	0.358870807	Low	0.229226361	Low	0.253908593	Low
Porophyllum gracile	14.38356164	High	9.393618297	High	10.95890411	Mid-high	9.940421448	High
Porophyllum linaria	3	Mid-low	1.92930545	Mid-low	11	High	5.716941901	High
Porophyllum ruderale	2.415458937	Mid-low	2.93394378	Mid-high	0	Null	0.425846695	Mid-low
Porophyllum scoparium	4.819277108	Mid-low	13.32020473	High	8.43373494	Mid-high	2.024271262	Mid-high
Pouteria campechiana	1.886792453	Mid-low	0.478827622	Mid-low	0	Null	0.004998201	Low
Pouteria durlandii	0	Null	10.60518213	High	0	Null	0.969650926	Mid-low
Pouteria reticulata	0	Null	5.578991563	High	0	Null	13.61409892	High
Pouteria sapota	0	Null	0.69175097	Low	2.380952381	Low	2.138230237	Mid-high
Psidium guajava	12.19512195	High	6.077811988	High	1.393728223	Mid-low	2.658043104	Mid-low
Psidium guineense	0	Null	0.718741253	Mid-low	8.620689655	Mid-high	0.130952857	Low
Psidium oligospermum	5.714285714	High	2.08624895	Mid-high	2.285714286	Mid-low	0.979647327	Mid-low
Salvia axillaris	0	Null	4.656323723	Mid-high	0	Null	0.331880523	Mid-low
Salvia carnea	0	Null	0.211923707	Low	26.2295082	High	4.534367628	Mid-high
Salvia cinnabarina	0	Null	4.363429166	Mid-high	0	Null	0.172937742	Low
Salvia coccinea	4.25	Mid-high	9.711503859	High	0	Null	7.516294134	High
Salvia columbariae	8.108108108	Low	21.36530849	High	0	Null	1.144587948	Mid-low
Salvia elegans	0	Null	7.41033228	Mid-high	0.176366843	Low	0.54180495	Mid-low
Salvia fluviatilis	0	Null	0.012995322	Low	0	Null	0.223919389	Low
Salvia helianthemifolia	0	Null	0.099964013	Low	2.777777778	Low	0.484825463	Mid-low
Salvia hispanica	29.13385827	High	6.721580231	High	13.38582677	High	3.640689352	Mid-high
Salvia laevis	0	Null	0.00299892	Low	0	Null	2.93294414	Mid-high
Salvia lasiantha	0	Null	3.142868567	Mid-high	0	Null	11.67679635	High
Salvia lasiocephala	0	Null	12.69742893	High	0	Null	4.272461914	Mid-high
Salvia longispicata	14.28571429	Mid-high	9.851453477	High	3.571428571	Low	13.94497981	High
Salvia mexicana	17.83783784	High	2.520092767	Mid-high	6.486486486	Mid-high	2.729017554	Mid-high
Salvia microphylla	3.649635036	Mid-high	2.54608341	Mid-high	0	Null	0.146947099	Low
Salvia misella	8.108108108	High	1.498460554	Mid-low	0.900900901	Low	1.900315886	Mid-low

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CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	13.33333333	High	5.696949098	High	35.23809524	High	2.706025831	Mid-high
Salvia occidentalis	0.966183575	Low	1.635411252	Mid-low	0.966183575	Low	2.744012156	Mid-high
Salvia patens	2.222222222	Low	10.83709864	High	0	Null	6.183773841	High
Salvia polystachia	0	Null	10.25130953	High	0	Null	9.007757207	High
Salvia prunelloides	9.433962264	Mid-low	3.184853453	Mid-high	0	Null	1.320524611	Mid-low
Salvia purpurea	0	Null	3.361789756	Mid-high	1.246882793	Mid-high	24.53616698	High
Salvia regla	6.25	Mid-low	3.610700148	Mid-high	20	High	15.61837738	High
Salvia sanctae-luciae	0	Null	1.070614579	Mid-low	0	Null	14.79467392	High
Salvia setulosa	0	Null	0.052980927	Low	0	Null	0.918669279	Mid-low
Salvia thyrsiflora	0	Null	1.013635091	Mid-low	0	Null	0.456835539	Mid-low
Salvia tiliifolia	1.176470588	Low	10.47223	High	0	Null	0.084969411	Low
Sechium chinantlense	0	Null	3.768643288	Mid-high	0	Null	3.953576712	Mid-high
Sechium compositum	0	Null	4.428405774	Mid-high	0	Null	9.72549882	High
Sechium edule subsp. *sylvestre*	0	Null	0.533807829	Mid-low	0	Null	3.139869647	Mid-high
Sechium hintonii	0	Null	0.028989564	Low	0	Null	0.185933064	Low
Simmondsia chinensis	0	Null	7.418329401	High	0	Null	0.047982726	Low
Solanum bulbocastanum	0	Null	0.277899956	Low	0.453514739	Low	0.46283338	Mid-low
Solanum cardiophyllum	2.083333333	Mid-high	0.878683674	Mid-low	1.666666667	Mid-low	1.288536127	Mid-low
Solanum demissum	25.03681885	High	5.007197409	Mid-high	13.54933726	High	5.932864169	High
Solanum ehrenbergii	0.558659218	Low	6.121796153	High	3.910614525	Mid-high	13.84801471	High
Solanum hjertingii	0	Null	0.239913631	Low	0	Null	0.056979487	Low
Solanum hougasii	44.18604651	High	9.208684873	High	6.976744186	Mid-high	1.821344316	Mid-low
Solanum iopetalum	7.142857143	Mid-high	4.644328042	Mid-high	21.16402116	High	2.600063977	Mid-low
Solanum morelliforme	0	Null	0.453836619	Mid-low	0	Null	2.9319445	Mid-high
Solanum oxycarpum	13.58024691	High	5.449038346	Mid-high	11.11111111	High	7.302371146	High
Solanum pinnatisectum	0	Null	0.546803151	Mid-low	0	Null	1.613419169	Mid-low
Solanum polyadenium	0.862068966	Low	8.503938582	High	0.862068966	Low	11.37090647	High
Solanum schenckii	0	Null	2.869966812	Mid-high	17.24137931	High	10.75512815	High
Solanum stenophyllidium	3.086419753	Mid-low	4.313447159	Mid-high	0.617283951	Low	2.818985165	Mid-high
Solanum stoloniferum	0.082781457	Low	0.379863249	Low	0.496688742	Mid-low	0.765724339	Mid-low
Solanum tarnii	0	Null	5.200127954	Mid-high	0	Null	0.38286217	Mid-low
Solanum trifidum	5.426356589	Mid-high	2.85397257	Mid-high	9.302325581	High	2.639049942	Mid-high
Solanum verrucosum	0	Null	4.128513735	Mid-high	0.383141762	Mid-low	4.084529569	Mid-high

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	Category 10				Category 11			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	0.4784689	Low	1.322523891	Mid-high	1.435406699	Mid-low	4.080531009	Mid-high
Spondias purpurea	0	Null	8.664880643	High	0	Null	11.100004	High
Stenocereus alamosensis	0	Null	0.345875485	Low	0	Null	0.104962214	Low
Stenocereus beneckei	0	Null	0.54080531	Mid-low	0	Null	0.07797193	Low
Stenocereus eruca	0	Null	0.142948539	Low	4.347826087	Low	10.02339158	High
Stenocereus fricii	0	Null	2.572074053	Mid-low	0	Null	9.936422888	High
Stenocereus griseus	0	Null	0.563797033	Mid-low	0	Null	4.176496461	Mid-high
Stenocereus gummosus	0	Null	3.058898796	Mid-high	0	Null	1.779359431	Mid-low
Stenocereus montanus	0	Null	4.039545764	Mid-high	0	Null	0.179935223	Low
Stenocereus pruinosus	1	Low	4.567355752	High	7	Mid-high	3.252828982	Mid-high
Stenocereus queretaroensis	0	Null	0.253908593	Low	0	Null	0.131952497	Low
Stenocereus stellatus	1.724137931	Low	1.612419529	Mid-low	12.06896552	High	1.451477468	Mid-low
Stenocereus thurberi	0	Null	7.724219281	High	0	Null	4.069534967	Mid-high
Stenocereus treleasei	0	Null	3.324803071	Mid-high	0	Null	0.533807829	Mid-low
Tagetes erecta	13.22537112	High	5.281098804	High	2.834008097	Mid-high	1.520452637	Mid-high
Tagetes filifolia	0	Null	3.052900956	Mid-high	3.592814371	Mid-high	4.795273701	Mid-high
Tagetes foetidissima	0	Null	3.263825023	Mid-high	1.020408163	Low	4.672317966	Mid-high
Tagetes lucida	25.72706935	High	7.167419729	High	8.277404922	High	1.804350434	Mid-low
Tagetes micrantha	0	Null	0.317885561	Low	0	Null	0.123955376	Low
Tagetes pringlei	0	Null	3.715662362	Mid-high	0	Null	3.766644008	Mid-high
Tagetes stenophylla	0	Null	17.41173178	High	0	Null	8.652884961	High
Tagetes subulata	0	Null	0.562797393	Mid-low	0.418410042	Low	4.104522372	Mid-high
Theobroma cacao	0	Null	0.403854612	Low	0	Null	2.988923987	Mid-high
Tripsacum dactyloides var. *hispidum*	0	Null	0.262905354	Low	0.847457627	Low	0.140949258	Low
Tripsacum intermedium	0	Null	1.952297173	Mid-low	0	Null	1.893318405	Mid-low
Tripsacum lanceolatum	31.64556962	High	11.5708345	High	16.87763713	High	9.910432244	High
Tripsacum laxum	8.333333333	Low	9.773481547	High	0	Null	4.39841657	Mid-high
Tripsacum maizar	0	Null	1.798352593	Mid-low	0	Null	0.193930185	Low
Tripsacum pilosum	0	Null	9.783477948	High	0	Null	7.863169259	High
Vanilla planifolia	1.5625	Low	0.579791275	Low	4.6875	Mid-high	1.627414131	Mid-low
Zea diploperennis	0	Null	0.644767884	Mid-low	0	Null	1.959294654	Mid-high
Zea mays subsp. *mexicana*	0	Null	12.02767004	High	0	Null	9.448598505	High

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	Category 10				Category 11			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	5.985845096	High	0	Null	7.213403175	High
Zea perennis	0	Null	0.732736215	Mid-low	0	Null	0.039985605	Low

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	Category 12				**Category 13**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	7.910750507	High	5.146147387	Mid-high	7.505070994	High	6.122795794	Mid-high
Agave atrovirens	0	Null	0.209924427	Low	5	Low	4.283457955	Mid-high
Agave congesta	0	Null	0.469830861	Low	0	Null	11.91571034	High
Agave datylio	0	Null	5.138150266	Mid-high	0	Null	0.022991723	Low
Agave fourcroydes	0	Null	0.562797393	Mid-low	0	Null	0.702747011	Mid-low
Agave hiemiflora	0	Null	5.430045184	High	0	Null	5.408053101	Mid-high
Agave hurteri	0	Null	14.52177216	High	0	Null	6.419688912	Mid-high
Agave karwinskii	7.692307692	Low	2.70402655	Mid-high	0	Null	0.042984526	Low
Agave macroacantha	0	Null	1.180574993	Mid-low	37.5	Mid-high	8.191051222	High
Agave macroculmis	17.39130435	High	5.63597105	High	4.347826087	Low	2.406133792	Mid-high
Agave rhodacantha	1.960784314	Low	0.921668199	Mid-low	0	Null	0.500819705	Mid-low
Agave seemanniana	0	Null	0.871686193	Mid-low	0	Null	3.93558319	Mid-high
Agave sisalana	0	Null	6.981486665	High	0	Null	0.264904634	Low
Agave tequilana	18.18181818	Mid-high	1.62341557	Mid-high	0	Null	8.481946499	High
Amaranthus australis	0	Null	0.753728658	Mid-low	0	Null	0.433843816	Low
Amaranthus blitoides	0	Null	1.832340357	Mid-high	15.38461538	Mid-low	14.99760086	High
Amaranthus caudatus	0	Null	1.952297173	Mid-low	0	Null	0.005997841	Low
Amaranthus cruentus	0	Null	1.106601623	Mid-low	0	Null	2.194210084	Mid-low
Amaranthus dubius	0	Null	0.020992443	Low	0	Null	3.833619897	Mid-high
Amaranthus fimbriatus	38.7755102	High	13.77104242	High	0	Null	1.661401895	Mid-high
Amaranthus greggii	0	Null	0.317885561	Low	0	Null	6.296733176	Mid-high
Amaranthus hybridus	0	Null	2.325162941	Mid-low	0.152207002	Low	3.328801631	Mid-high
Amaranthus hypochondriacus	2.127659574	Low	17.06885521	High	0	Null	0.094965812	Low
Amaranthus palmeri	0	Null	0.15394458	Low	0	Null	0.494821864	Mid-low
Amaranthus polygonoides	0	Null	0.027989924	Low	0	Null	0.868687273	Mid-low
Amaranthus powellii	1.063829787	Low	2.413131273	Mid-high	0	Null	6.799552161	Mid-high
Amaranthus scariosus	0	Null	0.011995682	Low	14.89361702	High	1.035627174	Mid-low
Amaranthus spinosus	4.130434783	Mid-high	0.601783358	Mid-low	0.869565217	Low	0.113958975	Low
Amaranthus torreyi	2	Low	3.021912112	Mid-high	2	Low	8.519932824	High
Annona cherimola	3.823529412	Mid-low	4.077532088	Mid-high	0.588235294	Low	0.098964373	Low
Annona glabra	0	Null	0.323883402	Low	0	Null	11.56983486	High
Annona globiflora	0.804289544	Mid-low	0.946659203	Mid-low	0.536193029	Mid-low	1.145587588	Mid-low
Annona liebmanniana	4.166666667	Low	0.804710304	Mid-low	0	Null	0.1519453	Low

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	Category 12				Category 13			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	0	Null	0.207925147	Low	1.449275362	Low	4.305450038	Mid-high
Annona macroprophyllata	10.76923077	Mid-high	5.576992283	High	16.92307692	High	2.31116798	Mid-low
Annona muricata	3.100775194	Mid-high	0.371866128	Low	12.40310078	High	4.497380943	Mid-high
Annona purpurea	0	Null	2.957935143	Mid-high	0	Null	1.954296453	Mid-high
Annona reticulata	0	Null	7.011475869	High	0	Null	18.63429166	High
Annona squamosa	0	Null	6.164780679	High	0	Null	4.47438922	Mid-high
Bixa orellana	3.6900369	Mid-low	7.765204526	High	7.749077491	Mid-high	8.40797313	High
Byrsonima crassifolia	0.865800866	Mid-low	2.330161142	Mid-high	0	Null	0.101963293	Low
Capsicum annuum var. *glabriusculum*	2.681992337	Mid-high	9.688512136	High	2.681992337	Mid-high	4.133511936	Mid-high
Capsicum frutescens	30.54830287	High	7.847175017	High	0.261096606	Low	0.207925147	Low
Carica papaya	0	Null	0.267903555	Low	1.351351351	Low	9.25566796	High
Carya illinoinensis	1.438848921	Low	0.818705266	Mid-low	1.438848921	Low	0.69275061	Mid-low
Carya ovata	0	Null	5.982846175	High	0.99009901	Low	4.570354672	Mid-high
Carya palmeri	0	Null	0.53780639	Mid-low	7.142857143	Mid-high	1.84933424	Mid-low
Crataegus mexicana	9.638554217	High	2.671038426	Mid-high	0.803212851	Mid-low	4.685313287	Mid-high
Cucurbita argyrosperma	1.382488479	Mid-low	8.320004798	High	0.460829493	Low	4.597344956	Mid-high
Cucurbita argyrosperma subsp. *sororia*	1.559020045	Mid-low	9.319644928	High	0.222717149	Low	8.604902235	High
Cucurbita cordata	0	Null	0.562797393	Mid-low	1.075268817	Low	14.41680995	High
Cucurbita digitata	23.86363636	High	10.16434084	High	22.72727273	Mid-high	9.693510336	High
Cucurbita foetidissima	1.652892562	Mid-low	3.833619897	Mid-high	0	Null	0.111959695	Low
Cucurbita lundelliana	0	Null	1.710384262	Mid-low	3.947368421	Mid-low	8.450957655	High
Cucurbita okeechobeensis subsp. *martinezii*	7.894736842	Mid-high	7.592266784	High	14.03508772	High	0.149946019	Low
Cucurbita palmata	10.81081081	Mid-high	4.17049862	Mid-high	0	Null	1.647406934	Mid-low
Cucurbita pedatifolia	0	Null	0.450837698	Low	0	Null	2.914950618	Mid-low
Cucurbita pepo subsp. *fraterna*	6.666666667	Low	2.303170858	Mid-high	0	Null	3.639689712	Mid-high
Cucurbita radicans	0	Null	1.372505898	Mid-low	3.614457831	Mid-low	3.171858131	Mid-high
Diospyros conzattii	12.90322581	Mid-high	10.9280659	High	0	Null	2.588068295	Mid-high
Gossypium aridum	0.952380952	Low	9.389619737	High	10.47619048	High	5.704946219	Mid-high
Gossypium barbadense	0	Null	0.428845616	Low	2.597402597	Mid-low	4.152505098	Mid-high
Gossypium gossypioides	0	Null	18.86820745	High	0	Null	2.169219081	Mid-high

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	Category 12				Category 13			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Gossypium hirsutum	0.119189511	Low	0.287896357	Low	12.87246722	High	3.388780039	Mid-high
Gossypium thurberi	0	Null	0.852693031	Mid-low	0	Null	0.192930545	Low
Helianthus laciniatus	0	Null	0.272901755	Low	0	Null	0.140949258	Low
Helianthus niveus	10.71428571	Mid-high	2.556079811	Mid-high	0	Null	1.670398656	Mid-high
Hylocereus ocamponis	0	Null	0.005997841	Low	0	Null	1.125594786	Mid-high
Ipomoea batatas	2.479338843	Mid-low	0.183933784	Low	5.785123967	High	0.381862529	Low
Ipomoea tiliacea	0	Null	0.298892399	Low	1.587301587	Mid-low	9.95341677	High
Ipomoea trifida	0.236966825	Low	6.357711224	High	2.606635071	Mid-high	11.03202847	High
Ipomoea triloba	4.975124378	High	3.381782558	Mid-high	1.990049751	Mid-low	0.368867208	Low
Jacaratia dolichaula	0	Null	9.95341677	High	0	Null	4.336438882	Mid-high
Jacaratia mexicana	1.538461538	Mid-low	0.749730097	Mid-low	2.564102564	Mid-high	0.335879084	Low
Jarilla heterophylla	1.818181818	Low	2.840977248	Mid-high	0	Null	7.802191211	High
Jatropha andrieuxii	0	Null	0.054980207	Low	0	Null	1.493462354	Mid-high
Jatropha mcvaughii	8.333333333	Low	9.435603183	High	0	Null	6.351713383	Mid-high
Leucaena confertiflora	0	Null	0.69574953	Mid-low	4.166666667	Low	1.256547643	Mid-low
Leucaena diversifolia	3.386004515	Mid-low	4.226478468	Mid-high	3.16027088	Low	6.166779959	High
Leucaena esculenta	0	Null	0.007997121	Low	18.23770492	High	12.43252429	High
Leucaena lanceolata	8.227848101	High	7.847175017	High	3.164556962	Mid-high	2.039265864	Mid-low
Leucaena leucocephala	4.601571268	High	7.573273621	High	3.815937149	High	10.57519293	High
Manihot aesculifolia	0	Null	6.815546403	High	5.381165919	Mid-high	7.877164221	High
Manihot angustiloba	4.8	Mid-high	3.796633212	Mid-high	8	High	12.88935983	High
Manihot caudata	24.10714286	High	4.619337039	High	6.25	High	1.068615298	Mid-low
Manihot chlorosticta	4.225352113	High	3.846615219	Mid-high	0	Null	1.029629333	Mid-low
Manihot davisiae	0	Null	1.008636891	Mid-low	0	Null	0.005997841	Low
Manihot foetida	0	Null	10.96005438	High	3.571428571	Low	4.157503299	Mid-high
Manihot michaelis	0	Null	7.140429445	High	0	Null	0.107961134	Low
Manihot oaxacana	3.50877193	Mid-low	2.013275221	Mid-high	0	Null	0.412851374	Low
Manihot pauciflora	0	Null	0.433843816	Low	1.694915254	Low	0.324883042	Low
Manihot pringlei	8.163265306	Mid-high	6.17377744	High	4.081632653	Low	4.762285577	Mid-high
Manihot rhomboidea	1.020408163	Low	2.865968251	Mid-low	0	Null	0.428845616	Mid-low
Manihot rhomboidea subsp. *microcarpa*	9.375	Mid-high	4.419409013	Mid-high	15.625	High	1.881322724	Mid-low
Manihot rubricaulis	0	Null	2.150225919	Mid-low	0	Null	0.871686193	Mid-low

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	Category 12				Category 13			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	4	Low	1.685393258	Mid-low	0	Null	0.279899236	Low
Manihot tomatophylla	7.142857143	Mid-high	2.635051382	Mid-high	2.380952381	Low	6.464672718	High
Manilkara chicle	0	Null	0.011995682	Low	2.564102564	Low	0.222919749	Mid-low
Manilkara zapota	0	Null	0.447838778	Low	0.223713647	Low	8.957775201	High
Opuntia atropes	1.923076923	Low	0.793714263	Mid-low	0	Null	10.66616018	High
Opuntia ficus-indica	0.840336134	Low	1.272541885	Mid-low	0	Null	3.940581391	Mid-high
Opuntia hyptiacantha	0	Null	0.236914711	Low	1.470588235	Mid-low	2.133232036	Mid-low
Opuntia lasiacantha	28.57142857	High	11.94170099	High	0	Null	0.067975529	Low
Opuntia spinulifera	0	Null	5.624975009	High	28	High	6.773561518	High
Opuntia streptacantha	2.362204724	Mid-high	16.06921508	High	0	Null	0.136950698	Low
Opuntia undulata	0	Null	0.787716422	Mid-low	0	Null	0.032988124	Low
Opuntia velutina	2.985074627	Low	0.610780119	Mid-low	7.462686567	Mid-high	14.46879124	High
Pachyrhizus erosus	0	Null	10.28929585	High	0	Null	12.3605502	High
Persea americana	4.142011834	Mid-high	0.352872966	Low	2.564102564	Mid-high	0.974649126	Mid-low
Persea schiedeana	0	Null	2.151225559	Mid-high	0	Null	4.271462274	Mid-high
Phaseolus acutifolius	0.44345898	Low	0.639769683	Mid-low	0.22172949	Low	0.048982366	Low
Phaseolus acutifolius var. *acutifolius*	8.235294118	Mid-high	9.144707905	High	8.235294118	Mid-high	9.658522932	High
Phaseolus acutifolius var. *tenuifolius*	0	Null	5.128153865	Mid-high	0	Null	0.437842377	Low
Phaseolus coccineus	0.434782609	Mid-low	2.687032668	Mid-high	7.282608696	High	1.69439002	Mid-low
Phaseolus coccineus subsp. *coccineus*	0	Null	7.808189052	High	5.792682927	High	1.061617818	Mid-low
Phaseolus dumosus	0	Null	6.226758367	High	0	Null	1.359510576	Mid-low
Phaseolus filiformis	0.408997955	Mid-low	0.937662442	Mid-low	1.840490798	Mid-high	1.910312288	Mid-high
Phaseolus maculatus subsp. *ritensis*	1.5625	Low	0.587788396	Mid-low	4.6875	Mid-high	4.224479187	Mid-high
Phaseolus parvifolius	0	Null	0.138949978	Low	4.819277108	Mid-high	1.669399016	Mid-high
Phaseolus vulgaris	13.10782241	High	5.70794514	High	3.805496829	Mid-high	1.956295734	Mid-high
Physalis acutifolia	0	Null	0.207925147	Low	17.97752809	High	10.61018034	High
Physalis ampla	6.666666667	Low	5.124155304	Mid-high	0	Null	0.057979128	Low
Physalis angulata	0	Null	0.530808909	Mid-low	5.128205128	Mid-high	2.845975449	Mid-high
Physalis crassifolia	0	Null	0.69075133	Mid-low	0	Null	0.653764645	Mid-low

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	Category 12				Category 13			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	0	Null	0.23191651	Low	9.782608696	Mid-high	4.00955656	Mid-high
Physalis philadelphica	1.101928375	Mid-low	0.372865768	Mid-low	1.652892562	Mid-high	0.878683674	Mid-low
Physalis sulphurea	0	Null	6.583629893	High	0	Null	4.063537127	Mid-high
Pinus ayacahuite	0	Null	0.788716062	Mid-low	2.127659574	Low	5.828901595	High
Pinus cembroides	15.58752998	High	9.729497381	High	5.51558753	Mid-high	10.36426886	High
Pithecellobium dulce	22.12034384	High	7.63625095	High	14.15472779	High	4.445399656	Mid-high
Porophyllum gracile	0	Null	1.710384262	Mid-low	0.684931507	Low	3.358790835	Mid-high
Porophyllum linaria	4	Mid-high	2.561078012	Mid-high	0	Null	2.018273422	Mid-low
Porophyllum ruderale	0.483091787	Low	0.553800632	Mid-low	2.415458937	Mid-low	8.649886041	High
Porophyllum scoparium	2.409638554	Low	7.912151625	High	6.024096386	Mid-high	4.331440681	Mid-high
Pouteria campechiana	0	Null	0.138949978	Low	6.918238994	High	1.384501579	Mid-low
Pouteria durlandii	0	Null	5.638969971	Mid-high	0	Null	1.010636171	Mid-low
Pouteria reticulata	0	Null	0.130952857	Low	0	Null	0.439841657	Mid-low
Pouteria sapota	0	Null	1.628413771	Mid-low	4.761904762	Mid-high	1.265544404	Mid-low
Psidium guajava	3.484320557	Mid-high	2.960934064	Mid-high	9.059233449	High	4.363429166	Mid-high
Psidium guineense	15.51724138	High	0.390859291	Low	3.448275862	Mid-low	0.190931265	Low
Psidium oligospermum	4.571428571	Mid-high	2.020272702	Mid-low	3.428571429	Mid-high	0.747730817	Mid-low
Salvia axillaris	0	Null	0.968651286	Mid-low	0	Null	7.876164581	High
Salvia carnea	21.31147541	High	5.985845096	Mid-high	1.639344262	Low	0.330880883	Mid-low
Salvia cinnabarina	0	Null	9.123715462	High	16.66666667	Mid-high	7.123435563	High
Salvia coccinea	4.75	Mid-high	5.008197049	Mid-high	1	Mid-low	0.799712104	Mid-low
Salvia columbariae	0	Null	11.08101084	High	13.51351351	Mid-low	4.109520573	Mid-high
Salvia elegans	0.705467372	Mid-low	3.31880523	Mid-high	33.86243386	High	7.579271462	High
Salvia fluviatilis	0	Null	0.192930545	Low	0	Null	0.767723619	Mid-low
Salvia helianthemifolia	0	Null	0.090967252	Low	0	Null	0.198928386	Low
Salvia hispanica	11.02362205	Mid-high	2.363149266	Mid-low	0	Null	4.897236995	Mid-high
Salvia laevis	0	Null	0.331880523	Mid-low	0	Null	0.00299892	Low
Salvia lasiantha	0	Null	7.433324003	High	0	Null	5.114158903	Mid-high
Salvia lasiocephala	0	Null	2.580071174	Mid-low	1.886792453	Low	2.62705426	Mid-high
Salvia longispicata	0	Null	0.122955736	Low	14.28571429	Mid-high	4.975208925	Mid-high
Salvia mexicana	14.59459459	High	3.576712384	Mid-high	20	High	2.252189212	Mid-low
Salvia microphylla	0.182481752	Low	4.033547923	Mid-high	0.547445255	Mid-low	6.952497101	High
Salvia misella	1.801801802	Mid-low	0.995641569	Mid-low	19.81981982	High	5.148146667	Mid-high

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	Category 12				Category 13			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Salvia mocinoi	4.761904762	Mid-high	1.685393258	Mid-low	1.904761905	Low	8.031108801	High
Salvia occidentalis	13.04347826	High	5.885881083	High	1.93236715	Mid-low	1.129593346	Mid-low
Salvia patens	0	Null	4.830261106	Mid-high	8.888888889	Mid-high	19.9108321	High
Salvia polystachia	0	Null	1.744372026	Mid-low	0	Null	7.136430885	High
Salvia prunelloides	1.886792453	Low	0.497820785	Low	9.433962264	Mid-low	8.87480507	High
Salvia purpurea	0	Null	2.282178416	Mid-high	0	Null	4.172497901	Mid-high
Salvia regla	27.5	High	16.04422408	High	13.75	High	1.247550882	Mid-low
Salvia sanctae-luciae	0	Null	0.207925147	Low	15.38461538	Low	9.062737415	High
Salvia setulosa	0	Null	2.376144588	Mid-high	0	Null	0.091966892	Low
Salvia thyrsiflora	0	Null	0.004998201	Low	0.763358779	Low	6.183773841	Mid-high
Salvia tiliifolia	0	Null	4.445399656	Mid-high	2.941176471	Mid-high	0.363869007	Low
Sechium chinantlense	0	Null	1.431484666	Mid-low	0	Null	5.513015314	High
Sechium compositum	0	Null	8.726858331	High	0	Null	3.973569515	Mid-high
Sechium edule subsp. *sylvestre*	0	Null	0.143948179	Low	0	Null	12.56347715	High
Sechium hintonii	0	Null	0.058978768	Low	0	Null	1.108600904	Mid-low
Simmondsia chinensis	0.546448087	Low	5.519013155	High	0	Null	4.47738814	Mid-high
Solanum bulbocastanum	1.133786848	Mid-high	0.860690152	Mid-low	0	Null	0.205925867	Low
Solanum cardiophyllum	10.41666667	High	2.574073334	Mid-high	0	Null	1.869327042	Mid-low
Solanum demissum	5.00736377	High	1.858331001	Mid-low	0.88365243	Mid-low	4.412411532	Mid-high
Solanum ehrenbergii	0	Null	0.718741253	Mid-low	45.25139665	High	9.279659323	High
Solanum hjertingii	1.25	Low	1.193570315	Mid-low	0	Null	0.109960414	Low
Solanum hougasii	0	Null	0.146947099	Low	0	Null	4.976208565	Mid-high
Solanum iopetalum	14.55026455	High	4.388420169	Mid-high	15.07936508	High	5.796913111	High
Solanum morelliforme	1.6	Mid-low	1.020632572	Mid-low	0	Null	6.924507177	High
Solanum oxycarpum	1.234567901	Low	2.482106442	Mid-low	20.98765432	High	1.253548722	Mid-low
Solanum pinnatisectum	0	Null	0.024991003	Low	11.21495327	High	2.456115798	Mid-high
Solanum polyadenium	0	Null	0.54080531	Mid-low	0	Null	2.830980847	Mid-high
Solanum schenckii	31.03448276	High	1.31452677	Mid-high	15.51724138	Mid-high	7.769203087	High
Solanum stenophyllidium	0	Null	0.068975169	Low	1.851851852	Low	5.086168979	Mid-high
Solanum stoloniferum	0	Null	0.207925147	Low	0.165562914	Low	3.899596145	Mid-high
Solanum tarnii	2.631578947	Low	25.24591147	High	0	Null	2.367147827	Mid-high
Solanum trifidum	0	Null	0.780718941	Mid-low	2.325581395	Mid-low	15.39245871	High
Solanum verrucosum	0.191570881	Low	0.666759966	Mid-low	0.574712644	Mid-low	0.580790915	Mid-low

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	Category 12				Category 13			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	1.913875598	Mid-low	2.039265864	Mid-high	0.956937799	Mid-low	2.861969691	Mid-high
Spondias purpurea	0	Null	0.165940262	Low	0	Null	6.983485945	High
Stenocereus alamosensis	0	Null	1.137590467	Mid-low	0	Null	8.662881363	High
Stenocereus beneckei	0	Null	0.166939902	Low	0	Null	3.153864609	Mid-high
Stenocereus eruca	0	Null	13.86300932	High	0	Null	0.035987045	Low
Stenocereus fricii	0	Null	4.044543964	Mid-high	0	Null	8.287016674	High
Stenocereus griseus	0	Null	0.652765005	Mid-low	4	Mid-low	9.158702867	High
Stenocereus gummosus	0	Null	6.236754768	High	0	Null	3.208844816	Mid-high
Stenocereus montanus	0	Null	3.994561958	Mid-high	0	Null	0.236914711	Low
Stenocereus pruinosus	11	High	7.55827902	High	0	Null	3.16685993	Mid-high
Stenocereus queretaroensis	0	Null	0.917669639	Mid-low	0	Null	0.355871886	Mid-low
Stenocereus stellatus	8.620689655	Mid-high	4.289455796	Mid-high	5.172413793	Low	10.15534408	High
Stenocereus thurberi	0	Null	3.47574873	Mid-high	21.05263158	High	7.335359271	High
Stenocereus treleasei	0	Null	0.765724339	Mid-low	0	Null	0.060978048	Low
Tagetes erecta	18.08367072	High	5.110160342	Mid-high	5.128205128	High	6.01783358	High
Tagetes filifolia	0	Null	0.679755288	Mid-low	0.598802395	Low	0.906673598	Mid-low
Tagetes foetidissima	0	Null	3.617697629	Mid-high	1.020408163	Low	1.253548722	Mid-low
Tagetes lucida	29.3064877	High	10.62517494	High	0.447427293	Low	3.85661162	Mid-high
Tagetes micrantha	0	Null	0.00099964	Low	0	Null	0.877684034	Mid-low
Tagetes pringlei	0	Null	13.81402695	High	3.333333333	Mid-high	4.600343876	Mid-high
Tagetes stenophylla	0	Null	5.144148107	High	0	Null	2.913950978	Mid-high
Tagetes subulata	0	Null	2.095245712	Mid-low	0	Null	0.056979487	Low
Theobroma cacao	0	Null	0.142948539	Low	0	Null	3.419768883	Mid-high
Tripsacum dactyloides var. *hispidum*	0	Null	0.261905714	Low	0	Null	6.17077852	Mid-high
Tripsacum intermedium	0	Null	4.911231956	Mid-high	0	Null	1.895317686	Mid-low
Tripsacum lanceolatum	9.70464135	High	12.73641489	High	1.687763713	Mid-low	3.666679995	Mid-high
Tripsacum laxum	8.333333333	Low	1.914310848	Mid-low	0	Null	5.993842217	High
Tripsacum maizar	0	Null	1.54144508	Mid-low	0	Null	6.362709425	High
Tripsacum pilosum	0	Null	4.386420888	High	0	Null	3.530728938	Mid-high
Vanilla planifolia	7.8125	Mid-high	1.31152785	Mid-low	0	Null	0.139949618	Low
Zea diploperennis	58.33333333	High	5.946859131	High	0	Null	0.675756728	Mid-low
Zea mays subsp. *mexicana*	0	Null	3.512735415	Mid-high	0	Null	0.716741973	Mid-low

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	Category 12				Category 13			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	8.261026031	High	0.444444444	Low	11.56483666	High
Zea perennis	0	Null	0.490823304	Mid-low	0	Null	3.544723899	Mid-high

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	Category 14				Category 15			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	1.622718053	Mid-low	2.044264065	Mid-low	7.707910751	High	2.303170858	Mid-low
Agave atrovirens	5	Low	1.615418449	Mid-low	30	High	1.846335319	Mid-low
Agave congesta	0	Null	3.030908873	Mid-high	0	Null	3.065896277	Mid-high
Agave datylio	0	Null	0.07597265	Low	0	Null	1.255548003	Mid-low
Agave fourcroydes	0	Null	3.47274981	Mid-high	0	Null	0.508816826	Low
Agave hiemiflora	0	Null	0.011995682	Low	23.80952381	Mid-high	0.335879084	Mid-low
Agave hurteri	0	Null	8.959774481	High	0	Null	7.880163141	High
Agave karwinskii	0	Null	0.898676476	Mid-low	0	Null	1.684393618	Mid-low
Agave macroacantha	0	Null	4.028549722	Mid-high	0	Null	2.675036987	Mid-high
Agave macroculmis	8.695652174	Mid-low	1.92630653	Mid-high	0	Null	5.366068215	Mid-high
Agave rhodacantha	0	Null	0.140949258	Low	0	Null	0.23091687	Low
Agave seemanniana	0	Null	1.999280259	Mid-low	0	Null	4.074533168	Mid-high
Agave sisalana	0	Null	0.833699868	Mid-low	0	Null	0.991643009	Mid-low
Agave tequilana	0	Null	0.017993522	Low	0	Null	8.908792835	High
Amaranthus australis	0	Null	0.00099964	Low	6.666666667	Low	1.374505178	Mid-low
Amaranthus blitoides	0	Null	0.15394458	Low	0	Null	5.761925707	High
Amaranthus caudatus	0	Null	0.647766804	Mid-low	0	Null	0.106961494	Low
Amaranthus cruentus	0	Null	3.922587868	Mid-high	0	Null	9.95241713	High
Amaranthus dubius	0	Null	2.065256508	Mid-high	0	Null	0.171938102	Mid-low
Amaranthus fimbriatus	0	Null	1.072613859	Mid-low	12.24489796	Mid-high	33.35599184	High
Amaranthus greggii	0	Null	8.304010556	High	0	Null	0.292894558	Low
Amaranthus hybridus	0	Null	0.298892399	Low	0	Null	0.316885921	Low
Amaranthus hypochondriacus	0	Null	0.575792715	Mid-low	0	Null	3.23983366	Mid-high
Amaranthus palmeri	0	Null	0.23091687	Low	0.961538462	Low	2.106241753	Mid-high
Amaranthus polygonoides	0	Null	0.663761046	Low	0	Null	0.191930905	Low
Amaranthus powellii	0	Null	9.682514295	High	0	Null	7.698228638	High
Amaranthus scariosus	4.255319149	Mid-low	0.940661362	Mid-low	2.127659574	Low	0.337878364	Mid-low
Amaranthus spinosus	1.086956522	Mid-low	0.269902835	Low	0.434782609	Low	0.191930905	Low
Amaranthus torreyi	0	Null	3.795633572	Mid-high	10	Mid-high	9.243672278	High
Annona cherimola	0.294117647	Low	0.248910392	Low	5.588235294	Mid-high	0.139949618	Low
Annona glabra	0	Null	7.301371506	High	0	Null	3.067895558	Mid-high
Annona globiflora	0	Null	4.792274781	High	2.680965147	Mid-high	0.7697229	Mid-low
Annona liebmanniana	0	Null	0.363869007	Low	0	Null	0.039985605	Low

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	Category 14				Category 15			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	0	Null	0.186932704	Low	0	Null	0.6177776	Mid-low
Annona macroprophyllata	0	Null	4.31744572	Mid-high	9.230769231	Mid-high	3.54572354	Mid-high
Annona muricata	0	Null	0.022991723	Low	36.43410853	High	10.26930305	High
Annona purpurea	0	Null	0.776720381	Mid-low	0	Null	2.500099964	Mid-high
Annona reticulata	0	Null	5.949858051	High	0	Null	2.398136671	Mid-low
Annona squamosa	0	Null	5.693950178	Mid-high	0	Null	3.961573833	Mid-high
Bixa orellana	0	Null	0.068975169	Low	0.36900369	Low	2.00627774	Mid-low
Byrsonima crassifolia	0.649350649	Low	12.14562757	High	1.515151515	Mid-high	10.07637251	High
Capsicum annuum var. *glabriusculum*	8.429118774	High	7.348354592	High	0.766283525	Low	0.792714623	Mid-low
Capsicum frutescens	6.266318538	Mid-high	0.7697229	Mid-low	1.566579634	Mid-low	0.871686193	Mid-low
Carica papaya	2.364864865	Mid-low	11.84373625	High	0	Null	0.179935223	Low
Carya illinoinensis	1.438848921	Low	5.042184813	Mid-high	0	Null	6.70958455	High
Carya ovata	0.99009901	Low	17.26478468	High	0.99009901	Low	2.339157903	Mid-low
Carya palmeri	2.380952381	Low	6.551641409	High	2.380952381	Low	12.17961534	High
Crataegus mexicana	0.401606426	Low	2.512095646	Mid-high	0	Null	1.283537926	Mid-low
Cucurbita argyrosperma	2.764976959	Mid-high	7.086448878	High	1.843317972	Mid-low	9.72349954	High
Cucurbita argyrosperma subsp. *sororia*	0.445434298	Low	6.428685673	High	0	Null	2.39013955	Mid-low
Cucurbita cordata	1.075268817	Low	5.78391779	High	0	Null	1.887320565	Mid-high
Cucurbita digitata	0	Null	0.171938102	Low	0	Null	0.320884482	Low
Cucurbita foetidissima	0.41322314	Low	0.236914711	Low	0	Null	0.120956456	Low
Cucurbita lundelliana	0	Null	1.834339638	Mid-low	0	Null	9.394617938	High
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	0.140949258	Low	7.01754386	Mid-high	0.256907513	Low
Cucurbita palmata	8.108108108	Mid-low	21.28033908	High	2.702702703	Low	10.44823863	High
Cucurbita pedatifolia	1.176470588	Low	0.727738014	Mid-low	0	Null	3.70466632	Mid-high
Cucurbita pepo subsp. *fraterna*	13.33333333	Mid-high	1.632412332	Mid-low	73.33333333	High	13.31320725	High
Cucurbita radicans	16.86746988	Mid-high	4.155504019	High	0	Null	2.584069735	Mid-high
Diospyros conzattii	0	Null	0.033987764	Low	58.06451613	High	1.445479627	Mid-low
Gossypium aridum	0.476190476	Low	7.191411092	Mid-high	0	Null	6.924507177	Mid-high
Gossypium barbadense	11.68831169	High	2.542084849	Mid-high	0	Null	2.202207205	Mid-low
Gossypium gossypioides	2.222222222	Low	0.367867568	Mid-low	0	Null	3.839617738	Mid-high

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	Category 14				**Category 15**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	37.18712753	High	8.845815506	High	19.78545888	High	8.958774841	High
Gossypium thurberi	2.564102564	Low	4.313447159	Mid-high	0	Null	6.455675957	High
Helianthus laciniatus	0	Null	0.943660282	Low	0	Null	0.406853533	Low
Helianthus niveus	0	Null	1.648406574	Mid-low	2.380952381	Low	5.328081891	Mid-high
Hylocereus ocamponis	0	Null	2.684033748	Mid-high	0	Null	0.360870087	Low
Ipomoea batatas	4.545454545	High	0.933663881	Mid-low	6.198347107	High	0.475828702	Low
Ipomoea tiliacea	0.529100529	Low	10.90407453	High	0	Null	0.028989564	Low
Ipomoea trifida	0.947867299	Mid-low	7.489303851	High	0	Null	3.810628174	Mid-high
Ipomoea triloba	0	Null	0.61677796	Low	3.980099502	Mid-high	1.029629333	Mid-low
Jacaratia dolichaula	0	Null	0.006997481	Low	0	Null	3.102882962	Mid-high
Jacaratia mexicana	37.43589744	High	5.744931825	High	12.30769231	Mid-high	4.430405054	Mid-high
Jarilla heterophylla	0	Null	11.2669439	High	0	Null	3.413771042	Mid-high
Jatropha andrieuxii	0	Null	0.61977688	Mid-low	0	Null	2.425126954	Mid-high
Jatropha mcvaughii	0	Null	8.685873086	High	0	Null	9.207685233	High
Leucaena confertiflora	0	Null	6.445679555	Mid-high	0	Null	2.514094926	Mid-low
Leucaena diversifolia	3.16027088	Low	1.0786117	Mid-low	0	Null	0.349874045	Low
Leucaena esculenta	18.23770492	High	9.609540565	High	5.532786885	Mid-high	1.537446519	Mid-low
Leucaena lanceolata	6.540084388	High	4.754288456	High	4.219409283	Mid-high	2.505098165	Mid-low
Leucaena leucocephala	0	Null	3.090887281	Mid-high	0	Null	1.337518493	Mid-low
Manihot aesculifolia	3.139013453	Mid-low	5.891878924	Mid-high	0	Null	9.346635211	High
Manihot angustiloba	24.8	High	11.27394138	High	17.6	High	10.16634012	High
Manihot caudata	3.571428571	Mid-low	4.131512655	Mid-high	5.357142857	Mid-high	3.638690072	Mid-high
Manihot chlorosticta	0.938967136	Low	1.008636891	Mid-low	0.938967136	Low	2.130233116	Mid-high
Manihot davisiae	0	Null	0.172937742	Low	0	Null	0.330880883	Low
Manihot foetida	0	Null	0.332880163	Mid-low	0	Null	0.69574953	Mid-low
Manihot michaelis	0	Null	11.14998601	High	0	Null	11.70478628	High
Manihot oaxacana	0	Null	0.204926227	Low	0	Null	0.521812148	Low
Manihot pauciflora	0	Null	0.254908233	Low	0	Null	0.144947819	Low
Manihot pringlei	36.73469388	High	2.752009277	Mid-high	6.12244898	Mid-low	2.102243192	Mid-low
Manihot rhomboidea	0	Null	0.056979487	Low	0	Null	0.996641209	Mid-low
Manihot rhomboidea subsp. *microcarpa*	14.0625	High	3.267823584	Mid-high	7.8125	Mid-low	10.97205006	High
Manihot rubricaulis	0	Null	0.056979487	Low	0	Null	0.418849214	Low

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	Category 14				Category 15			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	4	Low	1.100603783	Mid-low	0	Null	0.046983086	Low
Manihot tomatophylla	7.142857143	Mid-high	7.898156664	High	0	Null	1.472469911	Mid-low
Manilkara chicle	5.128205128	Mid-high	1.580431045	Mid-high	0	Null	0.07997121	Low
Manilkara zapota	0	Null	0.082970131	Low	0.223713647	Low	10.57919149	High
Opuntia atropes	0	Null	0.132952137	Low	0	Null	9.631532648	High
Opuntia ficus-indica	0	Null	1.534447599	Mid-low	0.840336134	Low	2.602063257	Mid-low
Opuntia hyptiacantha	0	Null	1.120596585	Mid-low	0	Null	0.53680675	Low
Opuntia lasiacantha	0	Null	3.110880083	Mid-high	0	Null	3.961573833	Mid-high
Opuntia spinulifera	0	Null	11.79675317	High	4	Low	10.836099	High
Opuntia streptacantha	0	Null	0.292894558	Low	0	Null	3.692670639	Mid-high
Opuntia undulata	0	Null	0.122955736	Low	0	Null	0.219920829	Low
Opuntia velutina	11.94029851	Mid-high	4.637330561	Mid-high	2.985074627	Low	2.219201088	Mid-low
Pachyrhizus erosus	3.913043478	Mid-low	2.262185613	Mid-low	5.652173913	Mid-low	5.527010276	Mid-high
Persea americana	13.21499014	High	10.28529729	High	0.394477318	Low	0.213922988	Low
Persea schiedeana	0	Null	10.40425447	High	0	Null	5.539005958	High
Phaseolus acutifolius	0.44345898	Low	0.139949618	Low	0	Null	0.223919389	Low
Phaseolus acutifolius var. *acutifolius*	18.82352941	High	12.77740014	High	15	High	22.09004758	High
Phaseolus acutifolius var. *tenuifolius*	0	Null	0.173937383	Low	0	Null	0.522811788	Low
Phaseolus coccineus	8.804347826	High	2.610060378	Mid-high	15.43478261	High	5.618977168	Mid-high
Phaseolus coccineus subsp. *coccineus*	1.219512195	Mid-low	0.345875485	Low	3.963414634	Mid-high	0.425846695	Mid-low
Phaseolus dumosus	2.027027027	Low	1.506457675	Mid-low	0	Null	0.422847775	Low
Phaseolus filiformis	1.63599182	Mid-low	3.611699788	Mid-high	0.204498978	Low	0.815706346	Mid-low
Phaseolus maculatus subsp. *ritensis*	1.5625	Low	2.609060738	Mid-low	24.21875	High	8.962773402	High
Phaseolus parvifolius	37.34939759	High	15.08856812	High	1.204819277	Low	2.258187053	Mid-high
Phaseolus vulgaris	3.664552502	Mid-high	2.375144948	Mid-high	10.95842142	High	5.694949818	Mid-high
Physalis acutifolia	13.48314607	High	6.045823504	High	34.83146067	High	5.077172218	Mid-high
Physalis ampla	0	Null	0.997640849	Mid-high	6.666666667	Low	1.244551961	Mid-high
Physalis angulata	6.41025641	Mid-high	4.111519853	Mid-high	0	Null	0.004998201	Low
Physalis crassifolia	0	Null	7.48230637	High	0	Null	5.948858411	Mid-high

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	Category 14				Category 15			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	6.52173913	Mid-high	12.5074973	High	0	Null	1.730377064	Mid-low
Physalis philadelphica	1.101928375	Mid-low	7.753208845	High	1.101928375	Mid-low	3.189851653	Mid-high
Physalis sulphurea	1.818181818	Low	2.264184893	Mid-high	0	Null	1.500459834	Mid-high
Pinus ayacahuite	4.255319149	Mid-high	21.0094366	High	0	Null	2.54808269	Mid-low
Pinus cembroides	3.117505995	Mid-high	3.436762765	Mid-high	0.479616307	Mid-low	3.23883402	Mid-high
Pithecellobium dulce	1.031518625	Mid-high	1.057619257	Mid-low	0	Null	0.00099964	Low
Porophyllum gracile	0	Null	0.942660642	Mid-low	0	Null	0.316885921	Low
Porophyllum linaria	0	Null	1.383501939	Mid-low	1	Low	3.00991643	Mid-high
Porophyllum ruderale	0	Null	7.344356032	High	0	Null	3.733655884	Mid-high
Porophyllum scoparium	9.638554217	High	1.844336039	Mid-low	0	Null	1.378503739	Mid-low
Pouteria campechiana	4.402515723	Mid-high	0.061977688	Low	0.628930818	Low	0.393858211	Mid-low
Pouteria durlandii	0	Null	1.220560598	Mid-high	0	Null	6.212763405	Mid-high
Pouteria reticulata	0	Null	3.650685753	Mid-high	0	Null	0.07897157	Low
Pouteria sapota	0	Null	5.209124715	Mid-high	0	Null	5.518013515	High
Psidium guajava	0	Null	0.643768243	Low	8.710801394	High	5.665960254	Mid-high
Psidium guineense	0	Null	0.022991723	Low	6.896551724	Mid-high	0.107961134	Low
Psidium oligospermum	4	Mid-high	0.314886641	Low	2.285714286	Mid-low	0.518813227	Mid-low
Salvia axillaris	0	Null	0.035987045	Low	0	Null	13.91798952	High
Salvia carnea	14.75409836	Mid-high	7.459314647	High	4.918032787	Mid-low	7.359350634	High
Salvia cinnabarina	0	Null	1.00463833	Mid-low	26.19047619	High	8.120076772	High
Salvia coccinea	0.5	Low	3.885601184	Mid-high	0.5	Low	0.362869367	Low
Salvia columbariae	0	Null	0.756727578	Mid-low	0	Null	1.045623576	Mid-low
Salvia elegans	0	Null	0.011995682	Low	13.75661376	High	5.694949818	Mid-high
Salvia fluviatilis	0	Null	7.593266424	High	0	Null	6.077811988	High
Salvia helianthemifolia	2.777777778	Low	1.513455156	Mid-low	0	Null	0.275900676	Mid-low
Salvia hispanica	0	Null	0.562797393	Low	1.57480315	Low	6.701587429	High
Salvia laevis	0	Null	13.67907553	High	0	Null	1.770362669	Mid-high
Salvia lasiantha	0	Null	11.26294534	High	0	Null	9.110720141	High
Salvia lasiocephala	0	Null	0.317885561	Low	0	Null	0.631772562	Mid-low
Salvia longispicata	14.28571429	Mid-high	2.724019353	Mid-high	0	Null	0.044983806	Low
Salvia mexicana	4.864864865	Mid-high	1.640409453	Mid-low	13.51351351	High	4.577352153	Mid-high
Salvia microphylla	3.284671533	Mid-high	3.987564477	Mid-high	7.116788321	High	3.535727138	Mid-high
Salvia misella	20.72072072	High	7.877164221	High	0	Null	0.933663881	Low

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	Category 14				Category 15			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Salvia mocinoi	5.714285714	Mid-high	3.649686113	Mid-high	0.952380952	Low	5.193130473	High
Salvia occidentalis	1.93236715	Mid-low	2.462113639	Mid-high	9.178743961	High	3.600703747	Mid-high
Salvia patens	0	Null	3.173857411	Mid-high	0	Null	5.853892599	High
Salvia polystachia	0	Null	9.263665081	High	0	Null	4.102523092	Mid-high
Salvia prunelloides	5.660377358	Mid-low	14.46579231	High	9.433962264	Mid-low	5.908872806	High
Salvia purpurea	0	Null	0.203926586	Mid-low	2.493765586	Mid-high	12.62645448	High
Salvia regla	8.75	Mid-high	4.716302131	Mid-high	12.5	Mid-high	1.549442201	Mid-low
Salvia sanctae-luciae	0	Null	0.607781199	Mid-low	0	Null	0.191930905	Low
Salvia setulosa	7.692307692	Low	2.54508377	Mid-high	7.692307692	Low	4.917229797	Mid-high
Salvia thyrsiflora	0	Null	2.212203607	Mid-low	0	Null	0.295893478	Low
Salvia tiliifolia	0	Null	0.027989924	Low	1.176470588	Low	0.160942061	Low
Sechium chinantlense	0	Null	2.528089888	Mid-high	0	Null	4.47238994	Mid-high
Sechium compositum	0	Null	6.099804071	High	0	Null	8.396977088	High
Sechium edule subsp. *sylvestre*	0	Null	10.85709145	High	0	Null	0.312887361	Low
Sechium hintonii	0	Null	2.256187772	Mid-low	0	Null	1.196569235	Mid-low
Simmondsia chinensis	0	Null	0.081970491	Low	0	Null	3.479747291	Mid-low
Solanum bulbocastanum	0.907029478	Mid-high	5.052181215	Mid-high	0.680272109	Mid-low	7.121436283	High
Solanum cardiophyllum	1.25	Mid-low	2.353152865	Mid-low	2.916666667	Mid-high	2.926946299	Mid-high
Solanum demissum	1.620029455	Mid-high	3.683673877	Mid-high	0.29455081	Low	2.990923268	Mid-low
Solanum ehrenbergii	27.93296089	High	24.73409573	High	4.469273743	High	1.978287816	Mid-high
Solanum hjertingii	0	Null	0.016993882	Low	1.25	Low	0.365868287	Low
Solanum hougasii	2.325581395	Mid-low	8.441960894	High	0	Null	0.286896717	Low
Solanum iopetalum	20.63492063	High	2.743012515	Mid-low	8.994708995	High	1.671398297	Mid-low
Solanum morelliforme	0.8	Low	12.5074973	High	1.6	Mid-low	8.428965572	High
Solanum oxycarpum	11.11111111	High	5.781918509	High	9.87654321	Mid-high	3.014914631	Mid-high
Solanum pinnatisectum	7.476635514	Mid-high	11.94769883	High	70.09345794	High	8.25502819	High
Solanum polyadenium	0.862068966	Low	4.470390659	Mid-high	0.862068966	Low	13.18125475	High
Solanum schenckii	15.51724138	Mid-high	2.482106442	Mid-high	0	Null	20.57059459	High
Solanum stenophyllidium	0	Null	9.432604262	High	0	Null	0.446839138	Mid-low
Solanum stoloniferum	0.248344371	Low	3.793634292	Mid-high	0	Null	0.170938462	Low
Solanum tarnii	0	Null	14.40681355	High	0	Null	2.815986245	Mid-high
Solanum trifidum	0.775193798	Low	2.242192811	Mid-low	3.875968992	Mid-low	0.335879084	Mid-low
Solanum verrucosum	0.383141762	Mid-low	0.721740174	Mid-low	0	Null	0.056979487	Low

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	Category 14				Category 15			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Spondias mombin	2.870813397	Mid-high	2.732016474	Mid-high	0.4784689	Low	0.953656684	Mid-low
Spondias purpurea	3.174603175	Mid-low	15.21252349	High	0	Null	0.068975169	Low
Stenocereus alamosensis	0	Null	0.649766084	Mid-low	9.523809524	High	11.52585069	High
Stenocereus beneckei	0	Null	0.548802431	Mid-low	0	Null	0.635771122	Mid-low
Stenocereus eruca	0	Null	3.076892319	Mid-high	0	Null	4.325442841	Mid-high
Stenocereus fricii	0	Null	7.990123556	High	0	Null	3.410772122	Mid-high
Stenocereus griseus	0	Null	7.708225039	High	2	Low	4.08952777	Mid-high
Stenocereus gummosus	0	Null	1.342516694	Mid-low	3.174603175	Low	3.449758087	Mid-high
Stenocereus montanus	0	Null	0.07797193	Low	0	Null	0.089967612	Low
Stenocereus pruinosus	17	High	2.813986965	Mid-low	8	Mid-high	3.829621336	Mid-high
Stenocereus queretaroensis	4.615384615	Low	10.11335919	High	0	Null	0.119956816	Low
Stenocereus stellatus	8.620689655	Mid-high	1.511455876	Mid-low	12.06896552	High	9.815466432	High
Stenocereus thurberi	47.36842105	High	10.21732176	High	10.52631579	High	2.501099604	Mid-high
Stenocereus treleasei	0	Null	0.010996041	Low	0	Null	0.270902475	Low
Tagetes erecta	1.754385965	Mid-low	1.347514895	Mid-low	4.993252362	Mid-high	3.734655524	Mid-high
Tagetes filifolia	10.77844311	High	20.65756328	High	0.598802395	Low	10.49622136	High
Tagetes foetidissima	37.75510204	High	5.137150626	Mid-high	10.20408163	Mid-high	5.71094406	High
Tagetes lucida	0.894854586	Mid-low	1.564436803	Mid-low	0.67114094	Mid-low	3.741653005	Mid-high
Tagetes micrantha	0.389105058	Low	12.11863729	High	0	Null	0.012995322	Low
Tagetes pringlei	6.666666667	Mid-high	8.389979607	High	1.666666667	Low	14.29685313	High
Tagetes stenophylla	0	Null	1.31452677	Mid-low	0	Null	0.991643009	Mid-low
Tagetes subulata	0	Null	0.888680075	Mid-low	0	Null	0.340877284	Mid-low
Theobroma cacao	0	Null	12.57047463	High	0	Null	2.15822304	Mid-high
Tripsacum dactyloides var. *hispidum*	0	Null	2.250189932	Mid-low	0	Null	1.104602343	Mid-low
Tripsacum intermedium	0	Null	5.257107441	High	10	Low	6.9425007	High
Tripsacum lanceolatum	2.109704641	Mid-low	8.739853653	High	4.641350211	Mid-high	8.133072094	High
Tripsacum laxum	0	Null	0.30988844	Low	8.333333333	Low	1.950297893	Mid-low
Tripsacum maizar	0	Null	5.043184454	Mid-high	0	Null	2.843976169	Mid-high
Tripsacum pilosum	0	Null	0.889679715	Mid-low	0	Null	0.62077652	Mid-low
Vanilla planifolia	0	Null	0.404854252	Low	1.5625	Low	0.332880163	Low
Zea diploperennis	0	Null	1.15658363	Mid-high	4.166666667	Low	13.10328282	High
Zea mays subsp. *mexicana*	0.638297872	Mid-low	19.55695949	High	1.276595745	Mid-low	6.641609021	High

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	Category 14				**Category 15**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	2.888888889	Mid-low	10.01739374	High	0	Null	12.71442281	High
Zea perennis	0	Null	0.049982006	Low	0	Null	3.069894838	Mid-low

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	Category 16				Category 17			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	5.273833671	Mid-high	1.421488264	Mid-low	3.042596349	Mid-high	2.00727738	Mid-low
Agave atrovirens	10	Mid-low	8.141069215	High	15	Mid-high	7.94513975	High
Agave congesta	0	Null	10.20132752	High	0	Null	5.052181215	Mid-high
Agave datylio	5.882352941	Low	9.092726618	High	0	Null	1.555440042	Mid-high
Agave fourcroydes	0	Null	0.406853533	Low	0	Null	2.00327882	Mid-high
Agave hiemiflora	0	Null	0.265904274	Mid-low	14.28571429	Mid-high	4.094525971	Mid-high
Agave hurteri	11.11111111	Low	0.160942061	Mid-low	33.33333333	Mid-high	5.650965652	Mid-high
Agave karwinskii	0	Null	7.25538806	High	0	Null	2.812987325	Mid-high
Agave macroacantha	9.375	Mid-high	5.768923188	High	0	Null	1.355512016	Mid-low
Agave macroculmis	4.347826087	Low	1.073613499	Mid-low	0	Null	2.783997761	Mid-high
Agave rhodacantha	1.960784314	Low	13.1352713	High	0	Null	3.62369547	Mid-high
Agave seemanniana	0	Null	0.129953217	Low	0	Null	0.109960414	Low
Agave sisalana	0	Null	0.45983446	Low	23.07692308	Mid-high	2.7799992	Mid-high
Agave tequilana	31.81818182	Mid-high	24.58414971	High	9.090909091	Low	1.383501939	Mid-high
Amaranthus australis	60	High	3.303810628	Mid-high	0	Null	7.570274701	High
Amaranthus blitoides	7.692307692	Low	14.51377504	High	0	Null	0.271902115	Low
Amaranthus caudatus	4.761904762	Low	7.166420089	High	9.523809524	Mid-high	12.17661642	High
Amaranthus cruentus	1.587301587	Low	8.02311168	High	0	Null	2.871966092	Mid-high
Amaranthus dubius	0	Null	1.043624295	Mid-low	0	Null	3.788636091	Mid-high
Amaranthus fimbriatus	0	Null	0.245911472	Low	0	Null	0.743732256	Mid-low
Amaranthus greggii	0	Null	7.452317166	High	0	Null	10.3502739	High
Amaranthus hybridus	0.608828006	Low	10.78811628	High	0	Null	4.852253189	Mid-high
Amaranthus hypochondriacus	0	Null	0.110960054	Low	0	Null	1.664400816	Mid-high
Amaranthus palmeri	0.480769231	Low	1.335519213	Mid-low	0.961538462	Low	0.736734775	Mid-low
Amaranthus polygonoides	22.58064516	High	8.202047263	High	12.90322581	Mid-high	7.414330841	High
Amaranthus powellii	0	Null	1.637410532	Mid-low	1.063829787	Low	8.378983566	High
Amaranthus scariosus	0	Null	0.278899596	Mid-low	0	Null	16.44208085	High
Amaranthus spinosus	3.47826087	Mid-high	1.658402975	Mid-low	16.95652174	High	7.734215682	High
Amaranthus torreyi	2	Low	0.947658843	Mid-low	0	Null	0.527809988	Low
Annona cherimola	5.882352941	High	0.421848135	Low	10.29411765	High	0.787716422	Mid-low
Annona glabra	0	Null	6.862529489	High	0	Null	6.374705106	Mid-high
Annona globiflora	1.340482574	Mid-high	9.701507457	High	0.268096515	Low	10.19532968	High
Annona liebmanniana	12.5	Mid-high	0.38886001	Low	12.5	Mid-high	1.067615658	Mid-low

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	Category 16				Category 17			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	2.898550725	Low	0.449838058	Low	0	Null	0.22991723	Low
Annona macroprophyllata	18.46153846	High	3.262825383	Mid-high	1.538461538	Low	4.818265424	Mid-high
Annona muricata	5.426356589	Mid-high	1.191571034	Mid-low	0	Null	0.005997841	Low
Annona purpurea	1.851851852	Low	18.68227438	High	0	Null	1.067615658	Mid-low
Annona reticulata	0	Null	3.141868927	Mid-high	0	Null	0.391858931	Low
Annona squamosa	0	Null	11.19996801	High	0.35335689	Low	6.923507537	High
Bixa orellana	12.17712177	High	5.306089808	Mid-high	0.36900369	Low	0.376864329	Low
Byrsonima crassifolia	0	Null	0.369866848	Mid-low	0	Null	0.213922988	Low
Capsicum annuum var. *glabriusculum*	0.383141762	Low	0.469830861	Mid-low	2.298850575	Mid-low	2.848974369	Mid-high
Capsicum frutescens	0	Null	0.032988124	Low	2.349869452	Mid-low	0.252908953	Low
Carica papaya	2.364864865	Mid-low	4.061537846	Mid-high	2.027027027	Mid-low	6.428685673	Mid-high
Carya illinoinensis	0	Null	0.198928386	Low	0	Null	0.250909673	Low
Carya ovata	1.98019802	Mid-high	0.497820785	Mid-low	2.97029703	Mid-high	3.100883682	Mid-low
Carya palmeri	0	Null	0.123955376	Low	0	Null	2.452117238	Mid-high
Crataegus mexicana	33.73493976	High	12.81238754	High	7.630522088	Mid-high	6.001839338	Mid-high
Cucurbita argyrosperma	0	Null	0.706745572	Mid-low	0.921658986	Low	2.773001719	Mid-high
Cucurbita argyrosperma subsp. *sororia*	0	Null	0.970650566	Mid-low	0.222717149	Low	1.908313007	Mid-low
Cucurbita cordata	5.376344086	Mid-high	5.700947659	Mid-high	0	Null	0.457835179	Mid-low
Cucurbita digitata	0	Null	0.561797753	Mid-low	0	Null	1.190571394	Mid-low
Cucurbita foetidissima	0	Null	0.300891679	Low	0.41322314	Low	0.800711744	Low
Cucurbita lundelliana	1.315789474	Low	3.136870727	Mid-high	0	Null	0.145947459	Low
Cucurbita okeechobeensis subsp. *martinezii*	9.649122807	High	0.445839498	Mid-low	6.140350877	Mid-high	0.550801711	Mid-low
Cucurbita palmata	0	Null	1.864328842	Mid-high	0	Null	6.313727058	High
Cucurbita pedatifolia	0	Null	8.029109521	High	0	Null	9.357631253	High
Cucurbita pepo subsp. *fraterna*	0	Null	4.981206766	Mid-high	0	Null	10.63017314	High
Cucurbita radicans	2.409638554	Mid-low	3.223839418	Mid-high	33.73493976	High	4.575352873	High
Diospyros conzattii	6.451612903	Low	0.733735855	Mid-low	9.677419355	Mid-low	13.09328642	High
Gossypium aridum	0	Null	1.593426367	Mid-low	5.714285714	Mid-high	3.944579951	Mid-high
Gossypium barbadense	2.597402597	Mid-low	7.240393458	High	6.493506494	Mid-high	2.46811148	Mid-high
Gossypium gossypioides	0	Null	0.181934504	Low	0	Null	0.15094566	Low

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	Category 16				**Category 17**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	1.668653159	Mid-high	2.275180935	Mid-high	2.622169249	Mid-high	1.723379583	Mid-high
Gossypium thurberi	0	Null	0.113958975	Low	0	Null	0.105961854	Low
Helianthus laciniatus	0	Null	12.70142749	High	0	Null	1.014634731	Mid-low
Helianthus niveus	1.19047619	Low	11.61181974	High	0	Null	13.10828102	High
Hylocereus ocamponis	0	Null	0.61477868	Mid-low	0	Null	0.314886641	Low
Ipomoea batatas	30.5785124	High	10.47322964	High	4.132231405	Mid-high	0.92466712	Mid-low
Ipomoea tiliacea	0	Null	0.473829421	Mid-low	0	Null	2.755008197	Mid-high
Ipomoea trifida	0	Null	0.53780639	Mid-low	0	Null	2.656043824	Mid-low
Ipomoea triloba	0.497512438	Low	0.952657043	Mid-low	3.482587065	Mid-high	2.385141349	Mid-high
Jacaratia dolichaula	0	Null	0.222919749	Low	0	Null	0.006997481	Low
Jacaratia mexicana	2.051282051	Mid-low	1.07761206	Mid-low	15.8974359	High	2.720020793	Mid-high
Jarilla heterophylla	1.818181818	Low	3.430764925	Mid-high	0	Null	0.746731177	Mid-low
Jatropha andrieuxii	0	Null	0.251909313	Low	0	Null	0.611779759	Mid-low
Jatropha mcvaughii	25	Mid-high	8.085089368	High	0	Null	7.092446719	High
Leucaena confertiflora	37.5	High	2.383142069	Mid-low	27.08333333	High	12.14862649	High
Leucaena diversifolia	6.772009029	High	4.683314007	Mid-high	5.417607223	Mid-high	2.475108961	Mid-high
Leucaena esculenta	10.04098361	High	5.108161062	Mid-high	2.663934426	Mid-low	1.682394338	Mid-high
Leucaena lanceolata	2.109704641	Mid-high	3.384781479	Mid-high	3.164556962	Mid-high	3.571714183	Mid-high
Leucaena leucocephala	0.673400673	Mid-low	10.7911152	High	0.224466891	Low	2.31316726	Mid-high
Manihot aesculifolia	0	Null	2.804990204	Mid-high	0	Null	0.371866128	Low
Manihot angustiloba	0	Null	0.019992803	Low	4	Mid-high	2.655044184	Mid-high
Manihot caudata	3.571428571	Mid-low	3.078891599	Mid-high	0	Null	2.613059299	Mid-high
Manihot chlorosticta	3.286384977	Mid-high	7.835179335	High	18.30985915	High	7.391339118	High
Manihot davisiae	0	Null	0.69375025	Mid-low	0	Null	2.375144948	Mid-low
Manihot foetida	3.571428571	Low	20.30269103	High	0	Null	0.606781559	Mid-low
Manihot michaelis	0	Null	0.322883762	Mid-low	0	Null	3.671678196	Mid-high
Manihot oaxacana	34.21052632	High	5.832900156	High	19.29824561	High	11.19197089	High
Manihot pauciflora	0	Null	8.247031069	High	0	Null	6.630612979	High
Manihot pringlei	0	Null	3.39877644	Mid-high	8.163265306	Mid-high	1.226558439	Mid-low
Manihot rhomboidea	0	Null	0.1519453	Low	0	Null	0.31188772	Low
Manihot rhomboidea subsp. *microcarpa*	14.0625	High	2.92894558	Mid-high	9.375	Mid-high	5.358071094	High
Manihot rubricaulis	0	Null	0.281898517	Low	0	Null	0.131952497	Low

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	Category 16				Category 17			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	4	Low	10.38326203	High	0	Null	9.999400216	High
Manihot tomatophylla	50	High	3.710664161	Mid-high	14.28571429	High	5.067175817	Mid-high
Manilkara chicle	0	Null	0.426846335	Mid-high	0	Null	20.44863849	High
Manilkara zapota	0	Null	11.12599464	High	0	Null	0.236914711	Low
Opuntia atropes	0	Null	21.21836139	High	0	Null	0.913671078	Mid-low
Opuntia ficus-indica	28.57142857	High	4.404414411	Mid-high	5.882352941	High	4.768283418	Mid-high
Opuntia hyptiacantha	0	Null	9.363629094	High	0	Null	1.267543684	Mid-low
Opuntia lasiacantha	6.428571429	High	1.420488624	Mid-low	5	Mid-high	1.172577872	Mid-low
Opuntia spinulifera	0	Null	0.941661002	Mid-low	0	Null	5.133152065	Mid-high
Opuntia streptacantha	0	Null	0.097964733	Low	0	Null	5.679955216	High
Opuntia undulata	0	Null	2.221200368	Mid-low	0	Null	2.131232756	Mid-low
Opuntia velutina	0	Null	0.590787317	Low	4.47761194	Mid-low	2.31216762	Mid-high
Pachyrhizus erosus	0.869565217	Low	3.712663441	Mid-high	7.826086957	Mid-high	19.04914231	High
Persea americana	0.591715976	Low	0.021992083	Low	5.719921105	High	0.438842017	Low
Persea schiedeana	0	Null	0.513815027	Mid-low	0	Null	3.195849494	Mid-high
Phaseolus acutifolius	0	Null	0.23091687	Low	0.44345898	Low	0.435843096	Low
Phaseolus acutifolius var. *acutifolius*	0	Null	0.07697229	Low	1.470588235	Low	2.981926506	Mid-high
Phaseolus acutifolius var. *tenuifolius*	1.941747573	Low	1.884321644	Mid-high	1.941747573	Low	0.643768243	Mid-low
Phaseolus coccineus	23.64130435	High	6.418689272	High	7.77173913	High	5.55300092	Mid-high
Phaseolus coccineus subsp. *coccineus*	0.914634146	Mid-low	0.294893838	Low	0.304878049	Low	0.146947099	Low
Phaseolus dumosus	0	Null	2.377144228	Mid-high	12.16216216	Mid-high	3.482746211	Mid-high
Phaseolus filiformis	5.521472393	Mid-high	9.161701787	High	18.60940695	High	5.671958095	High
Phaseolus maculatus subsp. *ritensis*	0	Null	3.404774281	Mid-high	0	Null	0.141948898	Low
Phaseolus parvifolius	0	Null	0.910672158	Mid-low	7.228915663	High	5.393058499	Mid-high
Phaseolus vulgaris	4.193093728	Mid-high	4.612339558	Mid-high	1.585623679	Mid-low	1.276540445	Mid-low
Physalis acutifolia	8.988764045	Mid-high	11.64980607	High	0	Null	3.135871086	Mid-high
Physalis ampla	0	Null	0.130952857	Low	0	Null	0.781718581	Mid-low
Physalis angulata	0	Null	2.602063257	Mid-high	3.846153846	Mid-low	13.84001759	High
Physalis crassifolia	0	Null	0.013994962	Low	0	Null	0.373865408	Mid-low

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	Category 16				Category 17			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	19.56521739	High	13.00531809	High	39.13043478	High	8.281018833	High
Physalis philadelphica	0.550964187	Low	0.097964733	Low	0	Null	0.281898517	Low
Physalis sulphurea	1.818181818	Low	2.274181295	Mid-high	0	Null	0.84769483	Mid-low
Pinus ayacahuite	0	Null	3.112879363	Mid-high	0	Null	11.45187732	High
Pinus cembroides	1.918465228	Mid-low	1.15658363	Mid-low	22.30215827	High	4.723299612	Mid-high
Pithecellobium dulce	1.604584527	Mid-high	0.968651286	Mid-low	0.974212034	Mid-low	0.885681155	Low
Porophyllum gracile	8.219178082	Mid-high	4.180495022	Mid-high	1.369863014	Mid-low	1.687392539	Mid-low
Porophyllum linaria	45	High	11.01603423	High	5	Mid-high	6.368707265	High
Porophyllum ruderale	3.381642512	Mid-high	7.038466152	High	0.483091787	Low	6.034827462	Mid-high
Porophyllum scoparium	0	Null	0.555799912	Mid-low	0	Null	0.003998561	Low
Pouteria campechiana	61.00628931	High	11.04002559	High	1.886792453	Mid-low	0.69275061	Mid-low
Pouteria durlandii	0	Null	13.51913311	High	0	Null	7.821184374	High
Pouteria reticulata	0	Null	10.76412492	High	0	Null	11.05502019	High
Pouteria sapota	0	Null	1.574433204	Mid-low	2.380952381	Low	3.619696909	Mid-high
Psidium guajava	0	Null	0.705745931	Low	0.348432056	Low	2.368147467	Mid-low
Psidium guineense	3.448275862	Mid-low	1.521452277	Mid-low	1.724137931	Low	0.991643009	Mid-low
Psidium oligospermum	16	High	3.295813507	Mid-high	9.142857143	High	7.615258507	High
Salvia axillaris	7.843137255	Mid-low	13.97296973	High	0	Null	0.377863969	Mid-low
Salvia carnea	0	Null	0.293894198	Low	0	Null	9.555559998	High
Salvia cinnabarina	19.04761905	High	6.063817026	Mid-high	0	Null	0.049982006	Low
Salvia coccinea	0.25	Low	12.24359231	High	1.25	Mid-low	10.93706266	High
Salvia columbariae	64.86486486	High	10.3302811	High	0	Null	0.045983446	Low
Salvia elegans	2.469135802	Mid-high	1.239553761	Mid-high	0	Null	0.208924787	Mid-low
Salvia fluviatilis	0	Null	0.188931984	Low	10	Low	0.804710304	Mid-low
Salvia helianthemifolia	0	Null	0.146947099	Low	16.66666667	Mid-high	14.29485385	High
Salvia hispanica	0.787401575	Low	1.451477468	Mid-low	0	Null	2.185213323	Mid-low
Salvia laevis	0	Null	0.056979487	Low	0	Null	15.04458395	High
Salvia lasiantha	0	Null	0.46383302	Mid-low	0	Null	0.888680075	Mid-low
Salvia lasiocephala	2.830188679	Mid-low	6.419688912	High	0.943396226	Low	6.107801192	Mid-high
Salvia longispicata	0	Null	0.200927666	Mid-low	0	Null	0.109960414	Low
Salvia mexicana	0.540540541	Low	3.55272102	Mid-high	0	Null	0.591786957	Mid-low
Salvia microphylla	0.182481752	Low	0.268903195	Low	17.88321168	High	15.39545764	High
Salvia misella	8.108108108	High	2.364148906	Mid-high	6.306306306	Mid-high	2.255188132	Mid-low

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	Category 16				Category 17			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	2.857142857	Mid-low	4.405414051	Mid-high	13.33333333	High	2.514094926	Mid-high
Salvia occidentalis	1.449275362	Mid-low	4.882242393	High	0	Null	2.594066136	Mid-high
Salvia patens	0	Null	3.712663441	Mid-high	0	Null	0.724739094	Mid-low
Salvia polystachia	0	Null	2.6230557	Mid-low	0	Null	0.660762126	Low
Salvia prunelloides	0	Null	2.9319445	Mid-high	0	Null	13.77903955	High
Salvia purpurea	0.498753117	Low	0.556799552	Mid-low	0	Null	0.22791795	Mid-low
Salvia regla	0	Null	3.300811708	Mid-high	1.25	Low	6.321724179	High
Salvia sanctae-luciae	0	Null	0.017993522	Low	0	Null	0.022991723	Low
Salvia setulosa	0	Null	1.442480707	Mid-high	7.692307692	Low	11.73677476	High
Salvia thyrsiflora	0	Null	0.158942781	Low	0	Null	0.821704186	Mid-low
Salvia tiliifolia	2.647058824	Mid-low	1.131592627	Mid-low	0	Null	0.149946019	Low
Sechium chinantlense	0	Null	1.089607741	Mid-low	0	Null	3.717661642	Mid-high
Sechium compositum	0	Null	0.403854612	Low	0	Null	3.299812068	Mid-high
Sechium edule subsp. *sylvestre*	0	Null	5.379063537	Mid-high	0	Null	12.19161102	High
Sechium hintonii	0	Null	0.216921908	Low	0	Null	0.698748451	Mid-low
Simmondsia chinensis	0	Null	5.425046983	Mid-high	0.546448087	Low	1.755368067	Mid-low
Solanum bulbocastanum	0	Null	0.091966892	Low	0.22675737	Low	0.127953937	Low
Solanum cardiophyllum	0	Null	0.743732256	Low	1.25	Mid-low	8.806829541	High
Solanum demissum	14.28571429	High	1.671398297	Mid-low	19.88217968	High	5.773921388	High
Solanum ehrenbergii	4.469273743	High	1.197568875	Mid-low	2.234636872	Mid-low	5.570994442	High
Solanum hjertingii	1.25	Low	1.043624295	Low	1.25	Low	12.67243792	High
Solanum hougasii	33.72093023	High	10.55220121	High	9.302325581	Mid-high	7.033467952	High
Solanum iopetalum	1.058201058	Mid-high	4.255468032	Mid-high	0.529100529	Low	3.310808109	Mid-high
Solanum morelliforme	0	Null	3.591706985	Mid-high	0	Null	7.300371866	High
Solanum oxycarpum	1.234567901	Low	3.102882962	Mid-high	0	Null	3.497740813	Mid-high
Solanum pinnatisectum	0	Null	0.127953937	Low	0	Null	6.473669479	Mid-high
Solanum polyadenium	0	Null	1.669399016	Mid-low	3.448275862	Mid-high	11.24095326	High
Solanum schenckii	0	Null	0.041984885	Low	3.448275862	Low	26.75036987	High
Solanum stenophyllidium	8.641975309	Mid-high	2.364148906	Mid-high	12.34567901	Mid-high	2.011275941	Mid-low
Solanum stoloniferum	0.082781457	Low	0.089967612	Low	0.331125828	Mid-low	0.237914351	Low
Solanum tarnii	44.73684211	High	6.052820984	Mid-high	7.894736842	Mid-high	2.663041305	Mid-high
Solanum trifidum	8.527131783	Mid-high	3.720660562	High	10.07751938	High	4.742292775	High
Solanum verrucosum	0.191570881	Low	0.184933424	Low	0.191570881	Low	0.237914351	Low

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	Category 16				Category 17			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	10.52631579	High	7.02247191	High	4.306220096	Mid-high	3.904594346	Mid-high
Spondias purpurea	0	Null	0.630772922	Mid-low	0.529100529	Low	3.053900596	Mid-high
Stenocereus alamosensis	0	Null	1.514454796	Mid-high	2.380952381	Low	0.628773641	Mid-low
Stenocereus beneckei	0	Null	2.77700028	Mid-high	0	Null	4.818265424	High
Stenocereus eruca	0	Null	0.557799192	Mid-low	8.695652174	Mid-high	1.583429965	Mid-low
Stenocereus fricii	0	Null	7.895157743	High	0	Null	3.668679275	Mid-high
Stenocereus griseus	2	Low	8.877803991	High	0	Null	14.41780959	High
Stenocereus gummosus	0	Null	3.360790116	Mid-high	0	Null	6.274741093	High
Stenocereus montanus	0	Null	0.77172218	Mid-low	0	Null	0.217921548	Low
Stenocereus pruinosus	3	Mid-low	0.724739094	Mid-low	11	High	2.478107881	Mid-low
Stenocereus queretaroensis	4.615384615	Low	4.547362949	Mid-high	46.15384615	High	7.046463273	Mid-high
Stenocereus stellatus	0	Null	0.015994242	Low	0	Null	0.015994242	Low
Stenocereus thurberi	1.315789474	Low	0.907673238	Mid-low	1.315789474	Low	0.584789476	Low
Stenocereus treleasei	0	Null	0.238913991	Low	0	Null	0.178935583	Low
Tagetes erecta	3.50877193	Mid-high	1.613419169	Mid-high	6.61268556	High	2.408133072	Mid-high
Tagetes filifolia	1.19760479	Mid-low	3.140869287	Mid-high	2.994011976	Mid-high	9.549562158	High
Tagetes foetidissima	2.040816327	Mid-low	2.4661122	Mid-high	14.28571429	Mid-high	2.043264425	Mid-low
Tagetes lucida	6.263982103	High	1.991283138	Mid-low	7.829977629	High	2.69802871	Mid-high
Tagetes micrantha	1.556420233	Mid-low	0.998640489	Mid-low	1.556420233	Mid-low	0.471830141	Mid-low
Tagetes pringlei	0	Null	0.413851014	Low	1.666666667	Low	2.69802871	Mid-low
Tagetes stenophylla	0	Null	6.693590307	High	0	Null	3.232836179	Mid-high
Tagetes subulata	0	Null	0.264904634	Low	0	Null	0.116957895	Low
Theobroma cacao	0	Null	7.738214243	High	0	Null	10.62717422	High
Tripsacum dactyloides var. *hispidum*	0	Null	3.453756648	Mid-low	0	Null	14.34983406	High
Tripsacum intermedium	0	Null	0.77172218	Mid-low	0	Null	5.799912032	High
Tripsacum lanceolatum	6.751054852	Mid-high	4.762285577	Mid-high	2.53164557	Mid-high	1.096605222	Mid-low
Tripsacum laxum	8.333333333	Low	4.78327802	Mid-high	0	Null	0.916669999	Mid-low
Tripsacum maizar	0	Null	7.968131473	High	0	Null	2.599064337	Mid-high
Tripsacum pilosum	0	Null	20.15674357	High	4.651162791	Low	6.161781759	High
Vanilla planifolia	51.5625	High	12.75240913	High	10.9375	High	1.704386421	Mid-low
Zea diploperennis	10.41666667	Mid-low	2.310168339	Mid-high	0	Null	0.84769483	Mid-low
Zea mays subsp. *mexicana*	1.914893617	Mid-high	4.495381663	Mid-high	0	Null	5.084169699	Mid-high

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	Category 16				Category 17			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Zea mays subsp. *parviglumis*	0	Null	4.047542885	Mid-high	0.222222222	Low	1.3875005	Mid-low
Zea perennis	0	Null	0.218921188	Low	0	Null	0.00199928	Low

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	Category 18				Category 19			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	6.085192698	Mid-high	2.894957815	Mid-high	1.21703854	Mid-low	6.178775641	Mid-high
Agave atrovirens	30	High	5.715942261	Mid-high	0	Null	4.271462274	Mid-high
Agave congesta	0	Null	1.333519933	Mid-low	0	Null	0.332880163	Low
Agave datylio	0	Null	0.581790555	Mid-low	5.882352941	Low	2.014274861	Mid-high
Agave fourcroydes	0	Null	9.904434404	High	0	Null	23.81742573	High
Agave hiemiflora	0	Null	5.292094846	Mid-high	0	Null	0.00199928	Low
Agave hurteri	0	Null	5.306089808	Mid-high	0	Null	0.07897157	Low
Agave karwinskii	0	Null	10.18733256	High	0	Null	0.032988124	Low
Agave macroacantha	0	Null	0.054980207	Low	0	Null	4.462393538	High
Agave macroculmis	0	Null	3.515734336	Mid-high	8.695652174	Mid-low	1.527450118	Mid-low
Agave rhodacantha	7.843137255	Mid-high	2.541085209	Mid-high	1.960784314	Low	3.189851653	Mid-high
Agave seemanniana	0	Null	0.257907153	Low	1.960784314	Low	2.08025111	Mid-low
Agave sisalana	0	Null	1.995281699	Mid-high	0	Null	0.003998561	Low
Agave tequilana	31.81818182	Mid-high	11.52984925	High	0	Null	2.378143868	Mid-high
Amaranthus australis	0	Null	2.578071894	Mid-high	13.33333333	High	12.33855812	High
Amaranthus blitoides	0	Null	1.54344436	Mid-high	0	Null	2.998920389	Mid-high
Amaranthus caudatus	4.761904762	Low	2.321164381	Mid-high	9.523809524	Mid-high	0.600783718	Mid-low
Amaranthus cruentus	3.174603175	Low	11.35491223	High	6.349206349	Mid-high	2.578071894	Mid-high
Amaranthus dubius	0	Null	0.147946739	Low	0	Null	11.63181255	High
Amaranthus fimbriatus	6.12244898	Mid-low	7.046463273	High	0	Null	1.446479267	Mid-high
Amaranthus greggii	0	Null	4.340437443	Mid-high	0	Null	4.045543604	Mid-high
Amaranthus hybridus	0.152207002	Low	5.852892959	High	0	Null	0.028989564	Low
Amaranthus hypochondriacus	2.127659574	Low	16.93590307	High	0	Null	0.049982006	Low
Amaranthus palmeri	0.480769231	Low	1.790355472	Mid-high	11.05769231	High	9.395617578	High
Amaranthus polygonoides	0	Null	0.105961854	Low	0	Null	1.167579671	Mid-low
Amaranthus powellii	0	Null	4.979207485	Mid-high	0	Null	1.937302571	Mid-low
Amaranthus scariosus	0	Null	4.190491423	Mid-high	0	Null	0.347874765	Mid-low
Amaranthus spinosus	13.91304348	High	6.899516174	High	6.739130435	High	5.286097005	Mid-high
Amaranthus torreyi	0	Null	0.559798473	Low	0	Null	2.170218721	Mid-low
Annona cherimola	14.70588235	High	0.434843456	Low	0	Null	13.97197009	High
Annona glabra	0	Null	2.263185253	Mid-high	0	Null	1.526450478	Mid-low
Annona globiflora	0.268096515	Low	0.038985965	Low	0.268096515	Low	3.31880523	Mid-high
Annona liebmanniana	8.333333333	Mid-high	0.267903555	Low	0	Null	2.795993442	Mid-high

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	Category 18				**Category 19**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	0	Null	0.667759607	Mid-low	31.88405797	High	4.356431685	Mid-high
Annona macroprophyllata	10.76923077	Mid-high	1.796353313	Mid-low	1.538461538	Low	0.118957175	Low
Annona muricata	3.100775194	Mid-high	1.030628974	Mid-low	0	Null	8.682874165	High
Annona purpurea	0	Null	11.04202487	High	32.40740741	High	10.58618897	High
Annona reticulata	0	Null	0.741732976	Mid-low	4.930966469	Mid-high	3.891599024	Mid-high
Annona squamosa	0.35335689	Low	0.034987405	Low	7.77385159	High	3.08788836	Mid-high
Bixa orellana	5.166051661	Mid-high	3.658682874	Mid-high	0.73800738	Mid-low	0.373865408	Low
Byrsonima crassifolia	0.865800866	Mid-low	0.107961134	Low	6.277056277	Mid-high	3.031908513	Mid-high
Capsicum annuum var. *glabriusculum*	0	Null	0.313887001	Low	1.53256705	Mid-low	2.539085929	Mid-high
Capsicum frutescens	0.522193211	Low	0.254908233	Low	0	Null	7.63825023	High
Carica papaya	0	Null	0.105961854	Low	23.31081081	High	7.458315007	High
Carya illinoinensis	0	Null	0.202926946	Low	5.755395683	Mid-high	0.722739814	Mid-low
Carya ovata	0	Null	0.22991723	Low	6.930693069	High	5.768923188	High
Carya palmeri	7.142857143	Mid-high	2.134231677	Mid-high	0	Null	8.327002279	High
Crataegus mexicana	4.819277108	Mid-high	2.043264425	Mid-low	10.84337349	High	0.793714263	Mid-low
Cucurbita argyrosperma	0	Null	1.084609541	Mid-low	0	Null	0.118957175	Low
Cucurbita argyrosperma subsp. *sororia*	0	Null	0.494821864	Low	18.48552339	High	3.168859211	Mid-high
Cucurbita cordata	0	Null	1.77436123	Mid-high	0	Null	0.997640849	Mid-low
Cucurbita digitata	0	Null	4.55536007	Mid-high	0	Null	12.02866968	High
Cucurbita foetidissima	0.41322314	Low	0.367867568	Low	0	Null	5.259106722	Mid-high
Cucurbita lundelliana	0	Null	4.922227998	Mid-high	5.263157895	Mid-high	5.209124715	Mid-high
Cucurbita okeechobeensis subsp. *martinezii*	8.771929825	High	0.859690511	Mid-low	0	Null	6.467671638	High
Cucurbita palmata	0	Null	1.211563837	Mid-low	0	Null	0.269902835	Low
Cucurbita pedatifolia	1.176470588	Low	4.7802791	Mid-high	1.176470588	Low	3.496741173	Mid-high
Cucurbita pepo subsp. *fraterna*	0	Null	6.692590667	High	6.666666667	Low	20.14074933	High
Cucurbita radicans	0	Null	1.229557359	Mid-low	0	Null	3.848614499	High
Diospyros conzattii	0	Null	7.479307449	High	0	Null	0.274901036	Mid-low
Gossypium aridum	0	Null	0.093966172	Low	2.380952381	Mid-low	1.229557359	Mid-low
Gossypium barbadense	0	Null	2.129233476	Mid-low	1.298701299	Low	9.417609661	High
Gossypium gossypioides	2.222222222	Low	4.493382382	High	0	Null	0.278899596	Low

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	Category 18				Category 19			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0.834326579	Mid-low	0.998640489	Mid-low	0.834326579	Mid-low	11.42688632	High
Gossypium thurberi	0	Null	0.241912911	Low	12.82051282	Mid-high	5.147147027	High
Helianthus laciniatus	1	Low	5.598984366	Mid-high	0	Null	1.016634012	Mid-low
Helianthus niveus	0	Null	11.31792555	High	9.523809524	Mid-high	8.747850774	High
Hylocereus ocamponis	0	Null	0.142948539	Low	6.382978723	Mid-low	3.205845895	Mid-high
Ipomoea batatas	10.33057851	High	2.619057139	Mid-high	1.239669421	Low	1.547442921	Mid-low
Ipomoea tiliacea	0	Null	0.181934504	Low	1.587301587	Mid-low	0.129953217	Low
Ipomoea trifida	0	Null	0.422847775	Mid-low	2.843601896	Mid-high	0.76872326	Mid-low
Ipomoea triloba	6.965174129	High	2.398136671	Mid-high	0	Null	0.120956456	Low
Jacaratia dolichaula	3.125	Low	1.119596945	Mid-low	0	Null	0.040985245	Low
Jacaratia mexicana	0	Null	0.565796313	Mid-low	0	Null	1.031628614	Mid-low
Jarilla heterophylla	0	Null	0.532808189	Mid-low	0	Null	0.005997841	Low
Jatropha andrieuxii	0	Null	0.224919029	Low	0	Null	0.62077652	Mid-low
Jatropha mcvaughii	0	Null	2.964932624	Mid-high	0	Null	0.027989924	Low
Leucaena confertiflora	0	Null	6.845535607	High	0	Null	0.195929465	Low
Leucaena diversifolia	5.869074492	Mid-high	1.15658363	Mid-high	0.225733634	Low	23.22064057	High
Leucaena esculenta	4.508196721	Mid-high	1.661401895	Mid-low	5.942622951	High	3.055899876	Mid-high
Leucaena lanceolata	0.421940928	Low	1.15358471	Mid-low	0	Null	2.781998481	Mid-low
Leucaena leucocephala	0.897867565	Mid-low	0.883681875	Mid-low	2.693602694	High	2.588068295	Mid-high
Manihot aesculifolia	0	Null	0.449838058	Mid-low	1.34529148	Low	0.248910392	Low
Manihot angustiloba	1.6	Low	4.767283778	Mid-high	0	Null	0.005997841	Low
Manihot caudata	1.785714286	Low	3.324803071	Mid-high	4.464285714	Mid-high	8.25902675	High
Manihot chlorosticta	54.92957746	High	4.870246711	Mid-high	0	Null	0.604782278	Mid-low
Manihot davisiae	0	Null	8.341996881	High	10	Mid-high	3.432764205	Mid-high
Manihot foetida	0	Null	8.465952257	High	0	Null	0.166939902	Low
Manihot michaelis	0	Null	0.621776161	Mid-low	0	Null	1.54044544	Mid-high
Manihot oaxacana	25.43859649	High	1.763365189	Mid-low	0	Null	1.074613139	Mid-low
Manihot pauciflora	0	Null	2.270182734	Mid-high	5.084745763	Mid-low	0.937662442	Mid-low
Manihot pringlei	0	Null	3.215842297	Mid-high	4.081632653	Low	12.78839618	High
Manihot rhomboidea	12.24489796	Mid-high	4.058538926	Mid-high	1.020408163	Low	2.16122196	Mid-low
Manihot rhomboidea subsp. *microcarpa*	3.125	Low	1.783357991	Mid-low	0	Null	3.154864249	Mid-high
Manihot rubricaulis	2.521008403	Mid-low	7.766204167	High	9.243697479	High	9.749490184	High

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CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	0	Null	1.46847135	Mid-low	0	Null	1.31152785	Mid-low
Manihot tomatophylla	2.380952381	Low	5.529009557	Mid-high	0	Null	1.093606302	Mid-low
Manilkara chicle	0	Null	0.265904274	Mid-low	0	Null	4.440401455	Mid-high
Manilkara zapota	0	Null	4.280459035	Mid-high	0.894854586	Mid-high	4.852253189	Mid-high
Opuntia atropes	9.615384615	Mid-high	10.00439842	High	0	Null	0.15294494	Low
Opuntia ficus-indica	32.77310924	High	5.539005958	High	0	Null	0.579791275	Low
Opuntia hyptiacantha	2.941176471	Mid-high	4.945219721	Mid-high	0	Null	6.752569075	High
Opuntia lasiacantha	4.285714286	Mid-low	5.054180495	Mid-high	0	Null	0.109960414	Low
Opuntia spinulifera	0	Null	0.723739454	Low	0	Null	4.118517334	Mid-high
Opuntia streptacantha	0.787401575	Low	14.28885601	High	0	Null	0.238913991	Low
Opuntia undulata	0	Null	1.185573194	Mid-low	0	Null	0.314886641	Low
Opuntia velutina	17.91044776	High	2.649046343	Mid-high	0	Null	2.365148547	Mid-high
Pachyrhizus erosus	0	Null	0.018993162	Low	0	Null	0.217921548	Low
Persea americana	2.564102564	Mid-high	0.124955016	Low	0.986193294	Mid-low	0.709744492	Mid-low
Persea schiedeana	0	Null	0.204926227	Low	5.660377358	Low	0.141948898	Low
Phaseolus acutifolius	0.66518847	Low	0.715742333	Mid-low	4.65631929	Mid-high	3.568715263	Mid-high
Phaseolus acutifolius var. *acutifolius*	8.529411765	Mid-high	4.271462274	Mid-high	0	Null	0.508816826	Mid-low
Phaseolus acutifolius var. *tenuifolius*	1.941747573	Low	1.62341557	Mid-low	0	Null	0.649766084	Mid-low
Phaseolus coccineus	17.44565217	High	7.901155584	High	0.163043478	Low	4.427406134	Mid-high
Phaseolus coccineus subsp. *coccineus*	1.219512195	Mid-low	0.108960774	Low	0	Null	6.40269503	High
Phaseolus dumosus	0	Null	3.62669439	Mid-high	0	Null	8.463952977	High
Phaseolus filiformis	8.1799591	High	3.102882962	Mid-high	0	Null	0.30988844	Low
Phaseolus maculatus subsp. *ritensis*	3.125	Mid-low	6.377704027	Mid-high	2.34375	Mid-low	2.70302691	Mid-high
Phaseolus parvifolius	0	Null	0.283897797	Mid-low	1.204819277	Low	0.779719301	Mid-low
Phaseolus vulgaris	3.136011276	Mid-high	3.983565916	Mid-high	5.461592671	High	7.073453557	High
Physalis acutifolia	0	Null	0.937662442	Mid-low	0	Null	4.023551521	Mid-high
Physalis ampla	0	Null	0.208924787	Mid-low	0	Null	0.996641209	Mid-low
Physalis angulata	1.282051282	Low	0.283897797	Low	6.41025641	Mid-high	8.02511096	High
Physalis crassifolia	4.615384615	Mid-low	8.899796073	High	0	Null	6.629613339	High

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	Category 18				Category 19			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	5.434782609	Mid-low	5.09116718	Mid-high	3.260869565	Mid-low	2.716022232	Mid-high
Physalis philadelphica	0	Null	0.07497301	Low	1.101928375	Mid-low	3.533727858	Mid-high
Physalis sulphurea	1.818181818	Low	1.15858291	Mid-low	0	Null	0.431844536	Low
Pinus ayacahuite	2.127659574	Low	8.016114199	High	2.127659574	Low	0.357871166	Low
Pinus cembroides	3.117505995	Mid-high	1.890319485	Mid-low	0	Null	0.045983446	Low
Pithecellobium dulce	0.171919771	Low	0.855691951	Low	7.507163324	High	2.345155744	Mid-high
Porophyllum gracile	0.684931507	Low	0.287896357	Low	22.60273973	High	2.433124075	Mid-high
Porophyllum linaria	18	High	3.102882962	Mid-high	0	Null	0.284897437	Low
Porophyllum ruderale	0.966183575	Mid-low	7.02447119	High	0	Null	0.273901395	Low
Porophyllum scoparium	0	Null	0.00099964	Low	36.14457831	High	11.47087049	High
Pouteria campechiana	0	Null	0.223919389	Low	0	Null	7.326362509	High
Pouteria durlandii	0	Null	14.20088768	High	0	Null	7.620256708	High
Pouteria reticulata	0	Null	0.023991363	Low	0	Null	0.141948898	Low
Pouteria sapota	0	Null	0.961653805	Mid-low	0	Null	3.360790116	Mid-high
Psidium guajava	0.348432056	Low	1.452477108	Mid-low	0	Null	5.70994442	High
Psidium guineense	5.172413793	Mid-low	2.022271982	Mid-low	5.172413793	Mid-low	5.569994802	High
Psidium oligospermum	27.42857143	High	9.4136111	High	2.285714286	Mid-low	3.16486065	Mid-high
Salvia axillaris	17.64705882	High	13.55012196	High	1.960784314	Low	3.86160982	Mid-high
Salvia carnea	0	Null	3.530728938	Mid-high	0	Null	0.560798113	Mid-low
Salvia cinnabarina	15.47619048	Mid-high	4.744292055	Mid-high	0	Null	2.124235275	Mid-low
Salvia coccinea	0.25	Low	4.791275141	Mid-high	10	High	1.733375985	Mid-low
Salvia columbariae	13.51351351	Mid-low	9.33363989	High	0	Null	3.043904194	Mid-high
Salvia elegans	0	Null	0.102962933	Low	0.176366843	Low	9.144707905	High
Salvia fluviatilis	0	Null	0.61677796	Mid-low	0	Null	4.563357191	Mid-high
Salvia helianthemifolia	0	Null	0.096965093	Low	0	Null	10.10536207	High
Salvia hispanica	3.149606299	Mid-low	0.61677796	Low	2.362204724	Low	17.69962813	High
Salvia laevis	0	Null	7.424327242	High	0	Null	0.010996041	Low
Salvia lasiantha	0	Null	3.540725339	Mid-high	0	Null	6.886520852	High
Salvia lasiocephala	1.886792453	Low	7.885161342	High	1.886792453	Low	0.257907153	Low
Salvia longispicata	0	Null	0.00199928	Low	7.142857143	Mid-low	0.577791995	Mid-low
Salvia mexicana	1.081081081	Mid-low	7.269383022	High	0	Null	0.521812148	Low
Salvia microphylla	38.32116788	High	18.87720421	High	0.182481752	Low	0.350873685	Mid-low
Salvia misella	0.900900901	Low	2.105242113	Mid-low	0	Null	0.169938822	Low

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	Category 18				Category 19			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	4.761904762	Mid-high	4.370426646	Mid-high	0	Null	3.47274981	Mid-high
Salvia occidentalis	20.28985507	High	7.243392379	High	0	Null	0.223919389	Low
Salvia patens	2.222222222	Low	0.466831941	Mid-low	0	Null	3.599704107	Mid-high
Salvia polystachia	0	Null	0.473829421	Low	1.851851852	Mid-low	0.416849934	Low
Salvia prunelloides	0	Null	4.446399296	Mid-high	0	Null	0.701747371	Mid-low
Salvia purpurea	46.88279302	High	12.58047103	High	0	Null	0.042984526	Low
Salvia regla	1.25	Low	8.351993282	High	0	Null	0.671758167	Mid-low
Salvia sanctae-luciae	0	Null	1.519452997	Mid-low	0	Null	0.094965812	Low
Salvia setulosa	0	Null	4.950217922	High	0	Null	13.28521732	High
Salvia thyrsiflora	0	Null	2.9319445	Mid-low	0	Null	0.599784078	Mid-low
Salvia tiliifolia	4.411764706	Mid-high	0.523811428	Low	0.294117647	Low	4.130513015	Mid-high
Sechium chinantlense	0	Null	1.860330281	Mid-low	0	Null	5.48102683	High
Sechium compositum	0	Null	0.77372146	Mid-low	0	Null	0.133951777	Low
Sechium edule subsp. *sylvestre*	0	Null	0.174937023	Low	16.12903226	Mid-high	0.440841297	Mid-low
Sechium hintonii	0	Null	0.182934144	Low	0	Null	1.866328122	Mid-low
Simmondsia chinensis	4.371584699	Mid-high	18.46335319	High	0.546448087	Low	5.226118597	Mid-high
Solanum bulbocastanum	0.453514739	Low	0.244911832	Low	14.05895692	High	6.145787516	High
Solanum cardiophyllum	0.833333333	Low	5.151145588	High	0	Null	0.024991003	Low
Solanum demissum	4.270986745	Mid-high	2.788995961	Mid-low	2.503681885	Mid-high	5.154144508	High
Solanum ehrenbergii	1.117318436	Mid-low	1.239553761	Mid-low	0	Null	5.739933624	High
Solanum hjertingii	3.75	Mid-high	1.201567436	Mid-low	6.25	Mid-high	3.060898077	Mid-high
Solanum hougasii	0	Null	2.964932624	Mid-high	1.162790698	Low	1.00163941	Mid-low
Solanum iopetalum	1.058201058	Mid-high	5.516014235	High	0	Null	0.243912192	Low
Solanum morelliforme	0	Null	10.05538006	High	0.8	Low	0.501819345	Mid-low
Solanum oxycarpum	1.234567901	Low	1.917309768	Mid-low	6.172839506	Mid-high	0.195929465	Low
Solanum pinnatisectum	2.803738318	Mid-high	1.715382462	Mid-low	2.803738318	Mid-high	8.877803991	High
Solanum polyadenium	0	Null	2.690031589	Mid-high	0.862068966	Low	0.216921908	Low
Solanum schenckii	0	Null	0.625774721	Mid-low	0	Null	3.802631053	Mid-high
Solanum stenophyllidium	0	Null	0.042984526	Low	0	Null	0.259906434	Low
Solanum stoloniferum	0	Null	0.086968691	Low	2.98013245	Mid-high	0.933663881	Mid-low
Solanum tarnii	0	Null	0.065976249	Low	36.84210526	High	10.19732896	High
Solanum trifidum	5.426356589	Mid-high	2.806989484	Mid-high	14.72868217	High	18.17145828	High
Solanum verrucosum	4.406130268	Mid-high	14.49478188	High	0.191570881	Low	3.287816386	Mid-high

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	Category 18				Category 19			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	4.784688995	High	1.408492943	Mid-high	3.827751196	Mid-high	0.504818265	Low
Spondias purpurea	0	Null	0.113958975	Low	0.529100529	Low	3.85661162	Mid-high
Stenocereus alamosensis	0	Null	2.410132352	Mid-high	0	Null	1.460474229	Mid-low
Stenocereus beneckei	0	Null	0.029989204	Low	0	Null	23.79343436	High
Stenocereus eruca	0	Null	0.041984885	Low	0	Null	0.53880603	Mid-low
Stenocereus fricii	53.84615385	High	9.710504218	High	0	Null	2.212203607	Mid-low
Stenocereus griseus	0	Null	5.47902755	Mid-high	0	Null	0.056979487	Low
Stenocereus gummosus	0	Null	11.48086689	High	0	Null	0.242912551	Low
Stenocereus montanus	0	Null	0.373865408	Low	0	Null	5.877883962	High
Stenocereus pruinosus	6	Mid-high	3.713663081	Mid-high	3	Mid-low	18.12947339	High
Stenocereus queretaroensis	18.46153846	High	5.570994442	Mid-high	13.84615385	Mid-high	4.694310048	Mid-high
Stenocereus stellatus	0	Null	0.484825463	Low	0	Null	0.722739814	Mid-low
Stenocereus thurberi	0	Null	1.910312288	Mid-low	0	Null	6.01983286	Mid-high
Stenocereus treleasei	0	Null	0.869686913	Mid-low	0	Null	6.595625575	High
Tagetes erecta	13.36032389	High	5.17013875	High	0.944669366	Mid-low	0.211923707	Low
Tagetes filifolia	0	Null	0.254908233	Low	0.598802395	Low	7.583270023	High
Tagetes foetidissima	14.28571429	Mid-high	5.735935063	High	0	Null	0.082970131	Low
Tagetes lucida	7.829977629	High	5.884881443	High	0.67114094	Mid-low	3.447758807	Mid-high
Tagetes micrantha	0	Null	0.004998201	Low	29.57198444	High	7.654244472	High
Tagetes pringlei	0	Null	1.261545843	Mid-low	0	Null	4.132512296	Mid-high
Tagetes stenophylla	0	Null	11.7427726	High	2.040816327	Low	3.023911392	Mid-high
Tagetes subulata	0	Null	3.291814947	Mid-high	0	Null	9.715502419	High
Theobroma cacao	0	Null	3.290815306	Mid-high	1.408450704	Low	3.186852733	Mid-high
Tripsacum dactyloides var. *hispidum*	0	Null	12.36354912	High	0.847457627	Low	14.3208445	High
Tripsacum intermedium	0	Null	8.443960174	High	0	Null	0.033987764	Low
Tripsacum lanceolatum	11.39240506	High	1.397496901	Mid-low	3.797468354	Mid-high	1.718381383	Mid-low
Tripsacum laxum	8.333333333	Low	3.851613419	Mid-high	8.333333333	Low	0.38586109	Low
Tripsacum maizar	0	Null	7.345355672	High	0	Null	0.025990643	Low
Tripsacum pilosum	0	Null	2.375144948	Mid-low	0	Null	0.400855692	Low
Vanilla planifolia	9.375	High	4.591347115	Mid-high	0	Null	1.913311208	Mid-high
Zea diploperennis	27.08333333	Mid-high	4.654324443	High	0	Null	0.258906794	Low
Zea mays subsp. *mexicana*	0	Null	0.405853893	Mid-low	9.361702128	Mid-high	6.076812348	Mid-high

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	Category 18				**Category 19**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	0	Null	1.372505898	Mid-low	2.444444444	Mid-low	0.725738734	Mid-low
Zea perennis	0	Null	0.15494422	Low	0	Null	2.77899956	Mid-low

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	0.405679513	Low	4.672317966	Mid-high	0	Null	8.881802551	High
Agave atrovirens	0	Null	13.90299492	High	0	Null	2.745011796	Mid-high
Agave congesta	18.18181818	Mid-low	1.23155664	Mid-low	27.27272727	Mid-high	1.094605942	Mid-low
Agave datylio	0	Null	8.747850774	High	0	Null	14.83465952	High
Agave fourcroydes	0	Null	0.014994602	Low	0	Null	1.219560958	Mid-low
Agave hiemiflora	0	Null	8.664880643	High	9.523809524	Low	4.001559439	Mid-high
Agave hurteri	0	Null	9.924427206	High	0	Null	8.809828462	High
Agave karwinskii	13.46153846	Mid-high	4.326442481	Mid-high	13.46153846	Mid-high	2.39113919	Mid-high
Agave macroacantha	0	Null	0.217921548	Low	0	Null	0.46483266	Low
Agave macroculmis	4.347826087	Low	3.946579231	Mid-high	13.04347826	Mid-high	21.06541645	High
Agave rhodacantha	1.960784314	Low	0.718741253	Mid-low	19.60784314	High	4.832260386	Mid-high
Agave seemanniana	5.882352941	Mid-low	2.416130193	Mid-low	29.41176471	High	6.390699348	High
Agave sisalana	0	Null	0.224919029	Low	0	Null	0.163940981	Low
Agave tequilana	0	Null	1.888320205	Mid-high	0	Null	0.77372146	Mid-low
Amaranthus australis	0	Null	6.533647887	High	0	Null	1.613419169	Mid-low
Amaranthus blitoides	0	Null	0.069974809	Low	0	Null	0.531808549	Mid-low
Amaranthus caudatus	33.33333333	High	1.733375985	Mid-low	9.523809524	Mid-high	2.024271262	Mid-low
Amaranthus cruentus	3.174603175	Low	3.170858491	Mid-high	4.761904762	Mid-low	1.370506618	Mid-low
Amaranthus dubius	2.040816327	Low	0.702747011	Mid-low	0	Null	0.060978048	Low
Amaranthus fimbriatus	0	Null	2.895957455	Mid-high	0	Null	2.941940901	Mid-high
Amaranthus greggii	0	Null	1.445479627	Mid-low	0	Null	1.935303291	Mid-low
Amaranthus hybridus	3.196347032	Mid-high	0.239913631	Low	0.608828006	Low	0.239913631	Low
Amaranthus hypochondriacus	0	Null	0.174937023	Low	0	Null	0.517813587	Mid-low
Amaranthus palmeri	7.692307692	Mid-high	12.1536247	High	0	Null	0.006997481	Low
Amaranthus polygonoides	12.90322581	Mid-high	4.466392099	Mid-high	3.225806452	Low	3.534727498	Mid-high
Amaranthus powellii	0	Null	0.071974089	Low	0	Null	1.268543324	Mid-low
Amaranthus scariosus	0	Null	1.23655484	Mid-low	0	Null	2.676036627	Mid-high
Amaranthus spinosus	2.173913043	Mid-low	2.616058219	Mid-high	1.956521739	Mid-low	2.098244632	Mid-high
Amaranthus torreyi	0	Null	1.691391099	Mid-low	0	Null	0.558798832	Low
Annona cherimola	0	Null	0.061977688	Low	0	Null	7.134431605	High
Annona glabra	1.183431953	Low	4.075532808	Mid-high	0	Null	1.282538286	Mid-low
Annona globiflora	0	Null	2.754008557	Mid-high	4.289544236	Mid-high	1.068615298	Mid-low
Annona liebmanniana	4.166666667	Low	2.603062897	Mid-low	4.166666667	Low	2.712023671	Mid-low

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	10.14492754	High	1.906313727	Mid-low	14.49275362	High	2.478107881	Mid-high
Annona macroprophyllata	1.538461538	Low	0.083969771	Low	0	Null	0.332880163	Low
Annona muricata	0	Null	9.054740293	High	0	Null	1.514454796	Mid-low
Annona purpurea	4.62962963	Mid-low	0.936662801	Mid-low	12.03703704	High	0.750729737	Low
Annona reticulata	2.761341223	Mid-high	1.117597665	Mid-low	6.114398422	High	4.814266864	Mid-high
Annona squamosa	2.826855124	Mid-high	2.680035187	Mid-low	0	Null	0.008996761	Low
Bixa orellana	0	Null	0.003998561	Low	0.36900369	Low	0.126954296	Low
Byrsonima crassifolia	14.06926407	High	2.750009996	Mid-high	0.216450216	Low	0.042984526	Low
Capsicum annuum var. *glabriusculum*	13.40996169	High	10.82910152	High	0	Null	0.235915071	Low
Capsicum frutescens	2.872062663	Mid-low	13.00731737	High	0	Null	0.033987764	Low
Carica papaya	10.47297297	High	2.132232396	Mid-low	27.02702703	High	7.284377624	High
Carya illinoinensis	5.035971223	Mid-high	5.491023232	High	0.71942446	Low	3.341796953	Mid-high
Carya ovata	2.97029703	Mid-high	3.982566276	Mid-high	0	Null	7.232396337	High
Carya palmeri	0	Null	7.509296653	High	0	Null	1.370506618	Mid-low
Crataegus mexicana	0	Null	0.174937023	Low	3.614457831	Mid-high	0.904674317	Mid-low
Cucurbita argyrosperma	6.451612903	Mid-high	5.573993362	Mid-high	9.677419355	High	5.900875685	Mid-high
Cucurbita argyrosperma subsp. *sororia*	12.02672606	High	1.534447599	Mid-low	14.25389755	High	3.503738654	Mid-high
Cucurbita cordata	0	Null	0.182934144	Low	0	Null	0.245911472	Low
Cucurbita digitata	0	Null	0.011995682	Low				
Cucurbita foetidissima	0.41322314	Low	3.340797313	Mid-high	1.652892562	Mid-low	5.979847255	High
Cucurbita lundelliana	81.57894737	High	8.245031789	High	7.894736842	Mid-high	4.595345676	Mid-high
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	13.62409533	High	0	Null	0.036986685	Low
Cucurbita palmata	0	Null	0.969650926	Mid-low	0	Null	0.178935583	Low
Cucurbita pedatifolia	1.176470588	Low	1.00563797	Mid-low	10.58823529	High	4.00955656	Mid-high
Cucurbita pepo subsp. *fraterna*	0	Null	0.677756008	Mid-low	0	Null	1.686392899	Mid-low
Cucurbita radicans	0	Null	0.554800272	Mid-low	0	Null	0.016993882	Low
Diospyros conzattii	0	Null	4.854252469	Mid-high	0	Null	3.741653005	Mid-high
Gossypium aridum	40.47619048	High	4.943220441	Mid-high	0	Null	7.454316446	High
Gossypium barbadense	0	Null	4.429405414	High	1.298701299	Low	5.743932184	High
Gossypium gossypioides	8.888888889	Mid-high	1.902315167	Mid-low	8.888888889	Mid-high	13.67907553	High

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0	Null	0.254908233	Low	0.238379023	Low	3.772641849	Mid-high
Gossypium thurberi	0	Null	1.395497621	Mid-low	0	Null	1.982286377	Mid-high
Helianthus laciniatus	0	Null	0.600783718	Low	1	Low	1.277540086	Mid-low
Helianthus niveus	7.142857143	Mid-high	4.354432404	Mid-high	3.571428571	Mid-low	2.184213683	Mid-high
Hylocereus ocamponis	2.127659574	Low	0.567795594	Mid-low	2.127659574	Low	0.930664961	Mid-low
Ipomoea batatas	1.652892562	Mid-low	1.61941701	Mid-low	1.652892562	Mid-low	1.599424207	Mid-low
Ipomoea tiliacea	0	Null	0.104962214	Low	0	Null	0.273901395	Low
Ipomoea trifida	1.421800948	Mid-low	0.38886001	Low	0	Null	0.00099964	Low
Ipomoea triloba	0	Null	0.702747011	Low	0.995024876	Low	2.38814027	Mid-high
Jacaratia dolichaula	0	Null	0.650765724	Mid-low	6.25	Mid-low	2.805989844	Mid-high
Jacaratia mexicana	0	Null	6.452677036	High	0.512820513	Low	0.514814667	Mid-low
Jarilla heterophylla	1.818181818	Low	0.15294494	Low	0	Null	0.199928026	Low
Jatropha andrieuxii	5.882352941	Low	2.918949178	Mid-high	11.76470588	Mid-high	0.368867208	Low
Jatropha mcvaughii	0	Null	0.256907513	Low	0	Null	0.568795234	Mid-low
Leucaena confertiflora	0	Null	2.800991643	Mid-high	0	Null	0.681754568	Mid-low
Leucaena diversifolia	0	Null	0.525810708	Mid-low	0	Null	6.004838258	High
Leucaena esculenta	6.352459016	High	8.40697349	High	4.508196721	Mid-high	9.130712943	High
Leucaena lanceolata	0	Null	0.044983806	Low	0	Null	1.444479987	Mid-low
Leucaena leucocephala	2.581369248	Mid-high	2.076252549	Mid-low	20.87542088	High	9.010756128	High
Manihot aesculifolia	1.793721973	Mid-low	0.545803511	Mid-low	0	Null	0.011995682	Low
Manihot angustiloba	12.8	High	10.46523252	High	4	Mid-high	11.42988524	High
Manihot caudata	3.571428571	Mid-low	2.890959255	Mid-high	9.821428571	High	19.56795554	High
Manihot chlorosticta	0	Null	0.23491543	Low	0	Null	0.159942421	Low
Manihot davisiae	0	Null	0.555799912	Low	0	Null	1.137590467	Mid-low
Manihot foetida	0	Null	0.597784797	Mid-low	0	Null	6.580630973	High
Manihot michaelis	3.703703704	Low	6.091806949	High	14.81481481	Mid-high	6.038826023	High
Manihot oaxacana	0	Null	0.235915071	Low	0	Null	1.788356192	Mid-low
Manihot pauciflora	0	Null	0.592786597	Low	6.779661017	Mid-high	3.834619537	Mid-high
Manihot pringlei	0	Null	2.477108241	Mid-low	4.081632653	Low	11.48286617	High
Manihot rhomboidea	15.30612245	High	4.998200648	Mid-high	18.36734694	High	5.972849774	High
Manihot rhomboidea subsp. *microcarpa*	0	Null	12.24359231	High	3.125	Low	12.46551242	High
Manihot rubricaulis	1.680672269	Low	4.436402895	Mid-high	0	Null	0.84769483	Mid-low

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

	Category 20				**Category 21**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	0	Null	2.142228798	Mid-high	0	Null	1.787356552	Mid-high
Manihot tomatophylla	0	Null	2.352153225	Mid-high	0	Null	0.315886281	Low
Manilkara chicle	0	Null	0.07897157	Low	0	Null	25.97864769	High
Manilkara zapota	0.223713647	Low	1.440481427	Mid-low	0	Null	1.530449038	Mid-low
Opuntia atropes	0	Null	0.560798113	Mid-low	0	Null	0.313887001	Low
Opuntia ficus-indica	0.840336134	Low	0.765724339	Mid-low	1.680672269	Mid-low	0.177935943	Low
Opuntia hyptiacantha	0	Null	8.770842497	High	0	Null	3.333799832	Mid-high
Opuntia lasiacantha	0	Null	2.862969331	Mid-high	0	Null	14.05793914	High
Opuntia spinulifera	0	Null	2.685033388	Mid-high	4	Low	13.17425727	High
Opuntia streptacantha	0	Null	0.130952857	Low	0	Null	0.104962214	Low
Opuntia undulata	0	Null	3.333799832	Mid-high	0	Null	0.389859651	Mid-low
Opuntia velutina	0	Null	9.424607141	High	0	Null	4.156503659	Mid-high
Pachyrhizus erosus								
Persea americana	1.972386588	Mid-low	1.00063977	Mid-low	0.394477318	Low	4.847254988	High
Persea schiedeana	7.547169811	Mid-low	0.455835899	Mid-low	0	Null	0.004998201	Low
Phaseolus acutifolius	3.10421286	Mid-high	2.710024391	Mid-high	1.33037694	Low	2.062257587	Mid-low
Phaseolus acutifolius var. *acutifolius*	11.76470588	High	9.672517894	High	10	High	4.727298173	Mid-high
Phaseolus acutifolius var. *tenuifolius*	0	Null	0.053980567	Low	0	Null	0.481826542	Low
Phaseolus coccineus	0.652173913	Mid-low	9.599544164	High	0	Null	7.10144348	High
Phaseolus coccineus subsp. *coccineus*	0	Null	2.208205046	Mid-high	0	Null	9.168699268	High
Phaseolus dumosus	0	Null	4.666320125	Mid-high	0	Null	4.125514815	Mid-high
Phaseolus filiformis	0	Null	0.099964013	Low	0	Null	0.062977328	Low
Phaseolus maculatus subsp. *ritensis*	12.5	High	6.907513295	High				
Phaseolus parvifolius	1.204819277	Low	0.794713903	Mid-low	0	Null	0.056979487	Low
Phaseolus vulgaris	0.352360817	Low	0.61877724	Mid-low	6.941508104	High	18.64828662	High
Physalis acutifolia	0	Null	2.846975089	Mid-high	0	Null	0.336878724	Low
Physalis ampla	0	Null	2.784997401	Mid-high	0	Null	0.499820065	Mid-low
Physalis angulata	2.564102564	Low	13.45715542	High	0	Null	0.351873326	Mid-low
Physalis crassifolia	0	Null	0.659762486	Mid-low	7.692307692	Mid-low	4.494382022	Mid-high

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Physalis lagascae	6.52173913	Mid-high	1.441481067	Mid-low	5.434782609	Mid-low	2.142228798	Mid-low
Physalis philadelphica	0.275482094	Low	0.359870447	Low	0	Null	0.302890959	Low
Physalis sulphurea	0	Null	1.183573913	Mid-low	0	Null	2.4711104	Mid-high
Pinus ayacahuite	2.127659574	Low	0.269902835	Low	2.127659574	Low	0.812707425	Mid-low
Pinus cembroides	0	Null	0.244911832	Low	0	Null	0.145947459	Low
Pithecellobium dulce	17.13467049	High	7.211403895	High	1.375358166	Mid-high	1.38949978	Mid-low
Porophyllum gracile	2.054794521	Mid-low	0.629773282	Mid-low	0.684931507	Low	10.4572354	High
Porophyllum linaria	5	Mid-high	0.815706346	Mid-low	0	Null	0.527809988	Low
Porophyllum ruderale	2.415458937	Mid-low	0.061977688	Low	3.8647343	Mid-high	1.198568515	Mid-low
Porophyllum scoparium	2.409638554	Low	2.296173378	Mid-high	0	Null	1.810348275	Mid-low
Pouteria campechiana	0	Null	12.31856532	High	0	Null	10.53820625	High
Pouteria durlandii	2.631578947	Low	2.041265145	Mid-high	0	Null	6.363709065	High
Pouteria reticulata	0	Null	0.104962214	Low	1.369863014	Low	0.243912192	Low
Pouteria sapota	0	Null	22.46891119	High	2.380952381	Low	9.063737055	High
Psidium guajava	0.696864111	Low	7.725218921	High	0.348432056	Low	14.3758247	High
Psidium guineense	1.724137931	Low	1.663401176	Mid-low	3.448275862	Mid-low	2.656043824	Mid-high
Psidium oligospermum	0	Null	0.348874405	Low	0	Null	0.223919389	Low
Salvia axillaris	3.921568627	Mid-low	2.556079811	Mid-high	7.843137255	Mid-low	2.136230957	Mid-high
Salvia carnea	1.639344262	Low	0.738734056	Mid-low	0	Null	2.576072614	Mid-high
Salvia cinnabarina	0	Null	0.010996041	Low	1.19047619	Low	6.569634931	Mid-high
Salvia coccinea	6.25	High	4.513375185	Mid-high	10	High	3.757647247	Mid-high
Salvia columbariae	0	Null	0.910672158	Mid-low	0	Null	2.058259027	Mid-high
Salvia elegans	0	Null	1.202567076	Mid-low	0	Null	0.062977328	Low
Salvia fluviatilis	0	Null	6.182774201	High	0	Null	8.054100524	High
Salvia helianthemifolia	5.555555556	Mid-low	8.359990403	High	0	Null	9.039745692	High
Salvia hispanica	4.724409449	Mid-low	6.70958455	High	0	Null	2.365148547	Mid-low
Salvia laevis	14.0625	Mid-high	6.78855612	High	3.90625	Mid-low	1.354512376	Mid-high
Salvia lasiantha	5	Low	1.8483346	Mid-low	0	Null	2.407133432	Mid-low
Salvia lasiocephala	1.886792453	Low	0.013994962	Low	2.830188679	Mid-low	0.225918669	Low
Salvia longispicata	14.28571429	Mid-high	0.674757087	Mid-low	0	Null	0.029989204	Low
Salvia mexicana	0	Null	0.015994242	Low	2.162162162	Mid-low	1.046623216	Mid-low
Salvia microphylla	0.364963504	Mid-low	7.585269303	High	0.182481752	Low	12.93634292	High
Salvia misella	0.900900901	Low	0.315886281	Low	0	Null	0.010996041	Low

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Salvia mocinoi	0	Null	0.598784438	Low	0	Null	0.61377904	Mid-low
Salvia occidentalis	0	Null	0.650765724	Mid-low	4.830917874	Mid-high	3.217841577	Mid-high
Salvia patens	0	Null	8.41197169	High	0	Null	5.55899876	High
Salvia polystachia	0	Null	0.22791795	Low	0	Null	4.085529209	Mid-high
Salvia prunelloides	0	Null	0.274901036	Low	0	Null	0.324883042	Low
Salvia purpurea	0	Null	0.064976608	Low	41.39650873	High	10.07937143	High
Salvia regla	0	Null	2.103242833	Mid-high	1.25	Low	1.417489704	Mid-low
Salvia sanctae-luciae	0	Null	2.505098165	Mid-high				
Salvia setulosa	7.692307692	Low	3.874605142	Mid-high	15.38461538	High	19.23407573	High
Salvia thyrsiflora	0	Null	11.44288056	High	0	Null	7.33335999	Mid-high
Salvia tiliifolia	0.588235294	Low	7.32736215	High	0.588235294	Low	9.273661482	High
Sechium chinantlense	0	Null	21.37530489	High	0	Null	3.211843736	Mid-high
Sechium compositum	0	Null	0.132952137	Low	0	Null	0.291894918	Low
Sechium edule subsp. *sylvestre*	0	Null	0.279899236	Low	35.48387097	High	0.792714623	Mid-low
Sechium hintonii	0	Null	11.87872366	High	0	Null	8.305010196	High
Simmondsia chinensis	0	Null	2.112239594	Mid-low	4.371584699	Mid-high	3.495741533	Mid-high
Solanum bulbocastanum	6.575963719	High	2.00727738	Mid-low	4.081632653	Mid-high	2.758007117	Mid-high
Solanum cardiophyllum	0.416666667	Low	0.292894558	Low	0	Null	0.149946019	Low
Solanum demissum	3.82916053	Mid-high	18.53932584	High	0.441826215	Low	2.997920749	Mid-high
Solanum ehrenbergii	0.558659218	Low	3.928585709	Mid-high	0	Null	5.318085489	High
Solanum hjertingii	18.75	High	1.498460554	Mid-low	7.5	Mid-high	12.35455236	High
Solanum hougasii	0	Null	0.331880523	Low	0	Null	0.061977688	Low
Solanum iopetalum	0	Null	0.085969051	Low	0.264550265	Low	0.123955376	Low
Solanum morelliforme	12	Mid-high	5.442040865	Mid-high	12	Mid-high	3.39877644	Mid-high
Solanum oxycarpum	0	Null	0.143948179	Low	2.469135802	Mid-low	0.276900316	Low
Solanum pinnatisectum	0	Null	7.365348475	High	0.934579439	Low	5.951857331	Mid-high
Solanum polyadenium	4.310344828	Mid-high	1.136590827	Mid-low	0	Null	0.434843456	Mid-low
Solanum schenckii	0	Null	0.412851374	Mid-low				
Solanum stenophyllidium	0	Null	1.284537566	Mid-low	0	Null	0.061977688	Low
Solanum stoloniferum	0.579470199	Mid-low	0.880682954	Mid-low	4.966887417	High	4.907233396	High
Solanum tarnii	2.631578947	Low	1.634411612	Mid-high	0	Null	0.027989924	Low
Solanum trifidum	0.775193798	Low	12.9383422	High	0.775193798	Low	3.351793354	Mid-high
Solanum verrucosum	0.191570881	Low	3.360790116	Mid-high	1.724137931	Mid-high	1.374505178	Mid-low

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	Category 20				**Category 21**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	1.435406699	Mid-low	0.332880163	Low	2.392344498	Mid-high	0.843696269	Mid-low
Spondias purpurea	12.16931217	High	13.9099924	High	0.529100529	Low	1.739373825	Mid-high
Stenocereus alamosensis	0	Null	6.706585629	High	0	Null	14.62573474	High
Stenocereus beneckei	0	Null	11.74177296	High	0	Null	0.003998561	Low
Stenocereus eruca	0	Null	1.101603423	Mid-low	0	Null	0.108960774	Low
Stenocereus fricii	38.46153846	Mid-low	3.017913551	Mid-low	7.692307692	Low	2.273181655	Mid-low
Stenocereus griseus	0	Null	0.337878364	Low	0	Null	1.185573194	Mid-low
Stenocereus gummosus	0	Null	0.337878364	Low	3.174603175	Low	2.693030509	Mid-low
Stenocereus montanus	25	High	11.21296333	High	12.5	Low	4.803270823	Mid-high
Stenocereus pruinosus	0	Null	1.604422408	Mid-low	0	Null	4.346435283	High
Stenocereus queretaroensis	6.153846154	Mid-high	5.550001999	Mid-high				
Stenocereus stellatus	15.51724138	High	2.181214763	Mid-high	0	Null	2.135231317	Mid-low
Stenocereus thurberi	1.315789474	Low	9.841457075	High	3.947368421	Mid-high	6.785557199	High
Stenocereus treleasei	0	Null	3.371786157	Mid-high	0	Null	11.01103603	High
Tagetes erecta	0.944669366	Mid-low	0.276900316	Low	0.809716599	Low	0.160942061	Low
Tagetes filifolia	25.74850299	High	6.074813067	Mid-high	0	Null	0.038985965	Low
Tagetes foetidissima	0	Null	10.79811268	High	0	Null	10.77212204	High
Tagetes lucida	0.447427293	Low	2.377144228	Mid-low	1.342281879	Mid-high	14.00495822	High
Tagetes micrantha	28.40466926	High	6.851533448	Mid-high	9.338521401	Mid-high	1.661401895	Mid-low
Tagetes pringlei	0	Null	4.0155544	Mid-high	0	Null	3.661681795	Mid-high
Tagetes stenophylla	10.20408163	Mid-low	3.289815666	Mid-high	42.85714286	High	2.223199648	Mid-low
Tagetes subulata	1.255230126	Mid-low	7.744212084	High	0	Null	0.165940262	Low
Theobroma cacao	1.408450704	Low	4.354432404	High	0	Null	0.276900316	Low
Tripsacum dactyloides var. *hispidum*	0	Null	7.876164581	High				
Tripsacum intermedium	0	Null	0.320884482	Low	0	Null	3.405773921	Mid-high
Tripsacum lanceolatum	2.109704641	Mid-low	2.014274861	Mid-low	0	Null	1.590427446	Mid-low
Tripsacum laxum	0	Null	0.269902835	Low	16.66666667	Mid-high	1.419488984	Mid-low
Tripsacum maizar	0	Null	0.012995322	Low	0	Null	0.07997121	Low
Tripsacum pilosum	0	Null	2.755008197	Mid-high	0	Null	1.043624295	Mid-low
Vanilla planifolia	1.5625	Low	5.625974649	High	1.5625	Low	1.635411252	Mid-low
Zea diploperennis	0	Null	0.890679355	Mid-high	0	Null	0.523811428	Low
Zea mays subsp. *mexicana*	6.382978723	Mid-high	4.038546123	Mid-high	0	Null	0.068975169	Low

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	Category 20				Category 21			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	1.111111111	Low	12.37654444	High	15.33333333	High	4.414410812	Mid-high
Zea perennis	37.93103448	High	5.32208405	Mid-high	10.34482759	Mid-low	2.171218361	Mid-low

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	Category 22				Category 23			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	3.042596349	Mid-high	2.345155744	Mid-high	0.811359026	Mid-low	0.516813947	Low
Agave atrovirens	0	Null	2.253188852	Mid-high	0	Null	1.031628614	Mid-low
Agave congesta	0	Null	6.333719861	High	0	Null	8.366987884	High
Agave datylio	0	Null	2.834979407	Mid-high	0	Null	2.534087728	Mid-high
Agave fourcroydes	0	Null	3.908592907	High	0	Null	1.870326682	Mid-high
Agave hiemiflora	0	Null	0.212923348	Low	9.523809524	Low	7.451317526	High
Agave hurteri	0	Null	0.787716422	Mid-low	11.11111111	Low	6.072813787	Mid-high
Agave karwinskii	0	Null	0.029989204	Low	5.769230769	Low	9.449598145	High
Agave macroacantha	0	Null	21.50825703	High	0	Null	3.884601543	Mid-high
Agave macroculmis	8.695652174	Mid-low	0.407853173	Low	0	Null	0.341876924	Low
Agave rhodacantha	5.882352941	Mid-high	9.429605342	High	0	Null	3.301811348	Mid-high
Agave seemanniana	1.960784314	Low	3.525730737	Mid-high	7.843137255	Mid-high	2.902954936	Mid-low
Agave sisalana	7.692307692	Low	8.067095845	High	7.692307692	Low	8.297013075	High
Agave tequilana	0	Null	8.780838898	High	0	Null	7.161421888	High
Amaranthus australis	0	Null	12.96533248	High	0	Null	2.222200008	Mid-high
Amaranthus blitoides	23.07692308	Mid-high	17.32376345	High	0	Null	0.351873326	Mid-low
Amaranthus caudatus	0	Null	12.2036067	High	4.761904762	Low	5.390059579	High
Amaranthus cruentus	22.22222222	High	9.374625135	High	1.587301587	Low	6.348714463	High
Amaranthus dubius	0	Null	2.970930465	Mid-high	0	Null	4.731296733	Mid-high
Amaranthus fimbriatus	0	Null	0.032988124	Low	0	Null	0.22991723	Low
Amaranthus greggii	1.315789474	Low	10.57819185	High	0	Null	9.693510336	High
Amaranthus hybridus	0.304414003	Low	0.198928386	Low	6.544901065	High	0.666759966	Mid-low
Amaranthus hypochondriacus	12.76595745	High	1.803350794	Mid-high	10.63829787	Mid-high	1.2355552	Mid-low
Amaranthus palmeri	0.480769231	Low	3.383781839	Mid-high	3.846153846	Mid-high	4.361429885	Mid-high
Amaranthus polygonoides	3.225806452	Low	2.268183454	Mid-low	0	Null	1.758366988	Mid-low
Amaranthus powellii	0	Null	8.037106642	High	0	Null	8.122076053	High
Amaranthus scariosus	0	Null	0.08097085	Low	0	Null	14.1938902	High
Amaranthus spinosus	7.391304348	High	6.118797233	Mid-high	0.434782609	Low	1.650405854	Mid-low
Amaranthus torreyi	0	Null	0.656763565	Mid-low	0	Null	0.401855332	Low
Annona cherimola	0.588235294	Low	22.43692271	High	0.882352941	Low	0.84869447	Mid-low
Annona glabra	0	Null	0.005997841	Low	0	Null	0.687752409	Low
Annona globiflora	0.268096515	Low	1.393498341	Mid-high	0	Null	4.08852813	Mid-high
Annona liebmanniana	0	Null	6.472669839	High	0	Null	8.733855812	High

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	Category 22				Category 23			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Annona longiflora	4.347826087	Mid-low	11.51785357	High	1.449275362	Low	3.092886561	Mid-high
Annona macroprophyllata	0	Null	0.363869007	Low	1.538461538	Low	0.266903915	Low
Annona muricata	0	Null	12.02267184	High	0	Null	3.995561598	Mid-high
Annona purpurea	0.925925926	Low	0.757727218	Mid-low	0	Null	0.007997121	Low
Annona reticulata	4.142011834	Mid-high	5.747930745	High	3.747534517	Mid-high	4.276460474	Mid-high
Annona squamosa	1.766784452	Mid-high	0.996641209	Mid-low	3.533568905	Mid-high	1.218561318	Mid-low
Bixa orellana	4.05904059	Mid-low	1.142588668	Mid-low	0	Null	0.022991723	Low
Byrsonima crassifolia	0.432900433	Low	0.77272182	Mid-low	12.12121212	High	1.404494382	Mid-low
Capsicum annuum var. *glabriusculum*	11.87739464	High	3.357791195	Mid-high	18.00766284	High	5.131152785	Mid-high
Capsicum frutescens	0	Null	3.033907793	Mid-high	0	Null	0.821704186	Mid-low
Carica papaya	1.351351351	Low	0.169938822	Low	1.689189189	Mid-low	0.312887361	Low
Carya illinoinensis	11.51079137	High	6.443680275	High	17.26618705	High	11.52585069	High
Carya ovata	0.99009901	Low	0.368867208	Mid-low	0	Null	0.247910752	Low
Carya palmeri	4.761904762	Mid-low	9.64152905	High	0	Null	7.258386981	High
Crataegus mexicana	0.401606426	Low	3.111879723	Mid-high	0.803212851	Mid-low	3.128873606	Mid-high
Cucurbita argyrosperma	6.451612903	Mid-high	0.470830501	Mid-low	22.11981567	High	4.301451477	Mid-high
Cucurbita argyrosperma subsp. *sororia*	2.89532294	Mid-high	5.731936503	High	8.46325167	High	11.93270423	High
Cucurbita cordata	0	Null	0.318885201	Low	0	Null	0.012995322	Low
Cucurbita digitata								
Cucurbita foetidissima	0	Null	2.053260826	Mid-high	0.41322314	Low	0.914670719	Mid-low
Cucurbita lundelliana	0	Null	0.730736935	Mid-low	0	Null	0.003998561	Low
Cucurbita okeechobeensis subsp. *martinezii*	0.877192982	Low	3.278819625	Mid-high	0	Null	15.09456596	High
Cucurbita palmata	0	Null	0.084969411	Low	0	Null	0.282898157	Mid-low
Cucurbita pedatifolia	0	Null	4.917229797	Mid-high	1.176470588	Low	0.15294494	Low
Cucurbita pepo subsp. *fraterna*	0	Null	6.506657603	Mid-high	0	Null	2.399136311	Mid-high
Cucurbita radicans	0	Null	0.429845256	Low	0	Null	0.53880603	Mid-low
Diospyros conzattii	0	Null	0.223919389	Low	12.90322581	Mid-high	4.659322644	Mid-high
Gossypium aridum	25.23809524	High	8.020112759	High	2.857142857	Mid-high	1.074613139	Mid-low
Gossypium barbadense	0	Null	1.018633292	Mid-low	0	Null	0.658762845	Mid-low
Gossypium gossypioides	0	Null	0.523811428	Mid-low	28.88888889	High	3.744651925	Mid-high

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	Category 22				Category 23			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Gossypium hirsutum	2.383790226	Mid-high	10.85609181	High	0.238379023	Low	0.088967972	Low
Gossypium thurberi	12.82051282	Mid-high	8.575912671	High	0	Null	4.197488904	Mid-high
Helianthus laciniatus	0	Null	1.967291775	Mid-low	0	Null	1.661401895	Mid-low
Helianthus niveus	0	Null	0.979647327	Mid-low	0	Null	1.847334959	Mid-high
Hylocereus ocamponis	21.27659574	High	10.43524331	High	0	Null	8.603902595	High
Ipomoea batatas	1.652892562	Mid-low	0.743732256	Low	3.305785124	Mid-high	3.515734336	Mid-high
Ipomoea tiliacea	38.0952381	High	13.81402695	High	0.529100529	Low	0.31188772	Low
Ipomoea trifida	40.75829384	High	17.43072494	High	25.35545024	High	2.846975089	Mid-high
Ipomoea triloba	3.482587065	Mid-high	8.02810988	High	0.497512438	Low	2.196209365	Mid-low
Jacaratia dolichaula	0	Null	0.106961494	Low	12.5	Mid-high	2.196209365	Mid-high
Jacaratia mexicana	0	Null	3.24383222	Mid-high	0	Null	8.214042945	High
Jarilla heterophylla	0	Null	0.068975169	Low	0	Null	3.424767084	Mid-high
Jatropha andrieuxii	0	Null	5.200127954	Mid-high	0	Null	4.146507257	Mid-high
Jatropha mcvaughii	0	Null	0.00099964	Low	0	Null	0.040985245	Low
Leucaena confertiflora	0	Null	2.913950978	Mid-high	0	Null	5.587988324	Mid-high
Leucaena diversifolia	0	Null	15.48242633	High	0	Null	0.024991003	Low
Leucaena esculenta	6.147540984	High	0.624775081	Low	1.43442623	Mid-low	0.23291615	Low
Leucaena lanceolata	0	Null	0.38386181	Low	0	Null	0.030988844	Low
Leucaena leucocephala	4.377104377	High	3.644687912	Mid-high	50.7295174	High	9.173697469	High
Manihot aesculifolia	13.4529148	High	2.70302691	Mid-high	38.56502242	High	15.4644328	High
Manihot angustiloba	0	Null	0.469830861	Low	0	Null	0.517813587	Mid-low
Manihot caudata	2.678571429	Low	2.791994882	Mid-high	0	Null	4.315446439	High
Manihot chlorosticta	0	Null	0.158942781	Low	0	Null	0.044983806	Low
Manihot davisiae	7.5	Mid-high	17.73061698	High	5	Mid-low	2.307169419	Mid-low
Manihot foetida	0	Null	0.192930545	Low	0	Null	0.679755288	Mid-low
Manihot michaelis	0	Null	1.431484666	Mid-low	25.92592593	Mid-high	3.265824303	Mid-high
Manihot oaxacana	0	Null	10.03338798	High	0	Null	1.803350794	Mid-low
Manihot pauciflora	3.389830508	Mid-low	3.32080451	Mid-high	1.694915254	Low	5.904874245	High
Manihot pringlei	0	Null	3.686672798	Mid-high	0	Null	0.314886641	Low
Manihot rhomboidea	0	Null	0.082970131	Low	5.102040816	Mid-high	4.311447879	Mid-high
Manihot rhomboidea subsp. *microcarpa*	0	Null	4.081530649	Mid-high	1.5625	Low	7.888160262	High
Manihot rubricaulis	4.201680672	Mid-high	3.7016674	Mid-high	7.56302521	High	0.632772202	Low

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	Category 22				Category 23			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Manihot subspicata	0	Null	8.585909073	High	0	Null	3.248830421	Mid-high
Manihot tomatophylla	4.761904762	Mid-low	15.69534967	High	0	Null	7.491303131	High
Manilkara chicle	0	Null	0.166939902	Mid-low				
Manilkara zapota	0.223713647	Low	2.459114719	Mid-high	0.223713647	Low	0.005997841	Low
Opuntia atropes	0	Null	0.149946019	Low	0	Null	1.149586149	Mid-low
Opuntia ficus-indica	1.680672269	Mid-low	3.665680355	Mid-high	0	Null	0.911671798	Mid-low
Opuntia hyptiacantha	0	Null	0.508816826	Low	0	Null	2.923947379	Mid-low
Opuntia lasiacantha	0	Null	0.020992443	Low	0	Null	5.397057059	High
Opuntia spinulifera	8	Mid-low	0.563797033	Low	0	Null	0.824703107	Mid-low
Opuntia streptacantha	0.787401575	Low	0.749730097	Mid-low	0	Null	0.390859291	Mid-low
Opuntia undulata	0	Null	3.899596145	Mid-high	0	Null	15.88628094	High
Opuntia velutina	0	Null	4.803270823	High	0	Null	13.97596865	High
Pachyrhizus erosus								
Persea americana	0	Null	4.019552961	Mid-high	0.591715976	Low	6.223759447	High
Persea schiedeana	0	Null	0.277899956	Low	24.52830189	High	8.086089008	High
Phaseolus acutifolius	14.41241685	High	8.202047263	High	2.66075388	Mid-high	3.122875765	Mid-high
Phaseolus acutifolius var. *acutifolius*	0	Null	0.041984885	Low	3.529411765	Mid-low	2.31616618	Mid-high
Phaseolus acutifolius var. *tenuifolius*	13.59223301	High	11.98868407	High	22.33009709	High	7.973129673	High
Phaseolus coccineus	0	Null	0.263904994	Low	0.108695652	Low	0.797712823	Low
Phaseolus coccineus subsp. *coccineus*	4.573170732	Mid-high	4.736294934	Mid-high	0	Null	0.261905714	Low
Phaseolus dumosus	0	Null	8.616897917	High	0	Null	10.43424367	High
Phaseolus filiformis	0	Null	0.881682594	Mid-low	0	Null	0.3088888	Low
Phaseolus maculatus subsp. *ritensis*								
Phaseolus parvifolius	0	Null	0.240913271	Low	0	Null	0.22791795	Low
Phaseolus vulgaris	0	Null	0.570794514	Mid-low	0.176180409	Low	0.469830861	Mid-low
Physalis acutifolia	0	Null	0.874685113	Mid-low	0	Null	0.053980567	Low
Physalis ampla	0	Null	0.027989924	Low	0	Null	0.189931625	Low
Physalis angulata	1.282051282	Low	0.535807109	Mid-low	0	Null	2.586069015	Mid-high
Physalis crassifolia	0	Null	0.518813227	Mid-low	0	Null	1.294533968	Mid-low

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	Category 22				Category 23			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae	0	Null	0.010996041	Low				
Physalis philadelphica	1.652892562	Mid-high	11.12199608	High	0.275482094	Low	4.410412252	Mid-high
Physalis sulphurea	0	Null	0.187932344	Low	0	Null	0.549802071	Mid-low
Pinus ayacahuite	0	Null	0.058978768	Low	0	Null	0.114958615	Low
Pinus cembroides	0.239808153	Low	5.440041585	High	0	Null	0.598784438	Mid-low
Pithecellobium dulce	20.63037249	High	5.213123276	High	2.005730659	Mid-high	1.722379943	Mid-low
Porophyllum gracile	5.479452055	Mid-high	18.70826502	High	0	Null	4.271462274	Mid-high
Porophyllum linaria	2	Low	11.37490503	High	2	Low	1.259546563	Mid-low
Porophyllum ruderale	0	Null	0.089967612	Low	0	Null	0.00099964	Low
Porophyllum scoparium	4.819277108	Mid-low	3.387780399	Mid-high	4.819277108	Mid-low	0.325882682	Low
Pouteria campechiana	0.628930818	Low	1.349514175	Mid-low	0	Null	0.765724339	Mid-low
Pouteria durlandii	0	Null	0.168939182	Low	2.631578947	Low	0.92366748	Mid-low
Pouteria reticulata	2.739726027	Mid-low	0.572793794	Mid-low	0	Null	0.318885201	Mid-low
Pouteria sapota	0	Null	3.361789756	Mid-high	0	Null	7.814186893	High
Psidium guajava	0.696864111	Low	4.137510496	Mid-high	0	Null	2.803990563	Mid-low
Psidium guineense	0	Null	4.09152705	Mid-high	5.172413793	Mid-low	4.643328402	High
Psidium oligospermum	1.142857143	Low	12.87836379	High	0	Null	3.604702307	Mid-high
Salvia axillaris	0	Null	3.198848415	Mid-high	0	Null	1.720380663	Mid-low
Salvia carnea	0	Null	8.856811548	High	0	Null	5.151145588	Mid-high
Salvia cinnabarina	3.571428571	Mid-low	0.124955016	Low	1.19047619	Low	0.259906434	Low
Salvia coccinea	0.5	Low	0.088967972	Low	11.25	High	7.432324363	High
Salvia columbariae	0	Null	4.959214683	High	0	Null	2.233196049	Mid-high
Salvia elegans	0.529100529	Mid-low	0.400855692	Mid-low	0.176366843	Low	0.07397337	Low
Salvia fluviatilis	0	Null	3.354792275	Mid-high	0	Null	3.889599744	Mid-high
Salvia helianthemifolia	0	Null	0.587788396	Mid-low	8.333333333	Mid-high	1.187572474	Mid-low
Salvia hispanica	0	Null	11.3988964	High	0	Null	2.873965372	Mid-low
Salvia laevis	0	Null	0.013994962	Low	39.84375	Mid-high	15.24551162	High
Salvia lasiantha	0	Null	0.326882322	Low	0	Null	0.004998201	Low
Salvia lasiocephala	0	Null	0.842696629	Mid-low	3.773584906	Mid-high	0.197928746	Low
Salvia longispicata	3.571428571	Low	2.719021152	Mid-high	17.85714286	High	2.408133072	Mid-high
Salvia mexicana	0	Null	0.167939542	Low	0	Null	0.009996401	Low
Salvia microphylla	0	Null	0.081970491	Low	6.204379562	Mid-high	4.773281619	Mid-high
Salvia misella	0.900900901	Low	2.493102483	Mid-high	3.603603604	Mid-high	8.995761526	High

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	Category 22				Category 23			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	0	Null	7.442320765	High	0	Null	4.40141549	Mid-high
Salvia occidentalis	0	Null	1.175576792	Mid-low	1.449275362	Mid-low	6.075812707	High
Salvia patens	17.77777778	High	4.545363669	Mid-high	11.11111111	Mid-high	1.861329921	Mid-low
Salvia polystachia	0	Null	6.184773482	High	0.925925926	Low	1.534447599	Mid-low
Salvia prunelloides	0	Null	0.242912551	Low	0	Null	0.07697229	Low
Salvia purpurea	0	Null	0.07797193	Low	0	Null	0.051981287	Low
Salvia regla	6.25	Mid-low	1.904314447	Mid-low	1.25	Low	3.797632852	Mid-high
Salvia sanctae-luciae								
Salvia setulosa	0	Null	0.954656324	Mid-low	53.84615385	High	1.245551601	Mid-low
Salvia thyrsiflora	0	Null	3.671678196	Mid-high	0	Null	7.437322564	High
Salvia tiliifolia	9.705882353	High	5.810908073	High	6.470588235	Mid-high	11.95669559	High
Sechium chinantlense	0	Null	2.185213323	Mid-low	0	Null	6.110800112	High
Sechium compositum	14.81481481	Mid-low	12.55647967	High	14.81481481	Mid-low	0.270902475	Low
Sechium edule subsp. *sylvestre*	3.225806452	Low	4.762285577	Mid-high	6.451612903	Mid-low	0.957655244	Mid-low
Sechium hintonii	0	Null	4.412411532	Mid-high	0	Null	14.61473869	High
Simmondsia chinensis	0	Null	0.683753849	Mid-low	0	Null	0.158942781	Low
Solanum bulbocastanum	0.680272109	Mid-low	3.85761126	Mid-high	1.360544218	Mid-high	4.104522372	Mid-high
Solanum cardiophyllum	0	Null	0.046983086	Low	0.416666667	Low	0.869686913	Mid-low
Solanum demissum	0.88365243	Mid-low	6.702587069	High	2.06185567	Mid-high	10.70814507	High
Solanum ehrenbergii	2.793296089	Mid-high	0.908672878	Mid-low	0.558659218	Low	2.000279899	Mid-high
Solanum hjertingii	25	High	8.861809748	High	11.25	High	9.314646727	High
Solanum hougasii	0	Null	0.801711384	Mid-low	0	Null	6.831540645	Mid-high
Solanum iopetalum	0.793650794	Mid-low	0.739733696	Mid-low	0	Null	0.335879084	Low
Solanum morelliforme	0	Null	0.338878004	Low	6.4	Mid-high	5.085169339	Mid-high
Solanum oxycarpum	4.938271605	Mid-high	0.449838058	Low	1.234567901	Low	0.476828342	Mid-low
Solanum pinnatisectum	0.934579439	Low	7.026470471	High	0	Null	7.508297013	High
Solanum polyadenium	0	Null	0.07397337	Low	1.724137931	Mid-high	0.30588988	Mid-low
Solanum schenckii								
Solanum stenophyllidium	0	Null	0.190931265	Low	0	Null	9.824463193	High
Solanum stoloniferum	0.579470199	Mid-low	6.749570155	High	0.496688742	Mid-low	3.661681795	Mid-high
Solanum tarnii	0	Null	7.801191571	High	0	Null	1.358510936	Mid-low
Solanum trifidum	1.550387597	Mid-low	14.58474949	High	0	Null	3.422767804	Mid-high
Solanum verrucosum	6.130268199	High	3.201847335	Mid-low	0	Null	0.203926586	Low

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	Category 22				Category 23			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Spondias mombin	2.392344498	Mid-high	0.191930905	Low	0.4784689	Low	0.102962933	Low
Spondias purpurea	1.058201058	Mid-low	0.188931984	Low	25.92592593	High	6.871526251	High
Stenocereus alamosensis	0	Null	0.003998561	Low	0	Null	0.481826542	Mid-low
Stenocereus beneckei	0	Null	18.56931505	High	0	Null	3.941581031	Mid-high
Stenocereus eruca	0	Null	2.043264425	Mid-low	0	Null	2.719021152	Mid-high
Stenocereus fricii	0	Null	4.868247431	Mid-high	0	Null	2.476108601	Mid-low
Stenocereus griseus	0	Null	0.689751689	Mid-low	0	Null	0.22891759	Low
Stenocereus gummosus	12.6984127	Mid-high	5.217121836	Mid-high	22.22222222	High	6.273741453	High
Stenocereus montanus	0	Null	3.003918589	Mid-low	12.5	Low	21.12539486	High
Stenocereus pruinosus	0	Null	3.224839058	Mid-high	2	Mid-low	0.487824383	Low
Stenocereus queretaroensis								
Stenocereus stellatus	5.172413793	Low	0.278899596	Low	0	Null	0.582790196	Low
Stenocereus thurberi	2.631578947	Mid-low	1.38650086	Mid-low	2.631578947	Mid-low	0.716741973	Low
Stenocereus treleasei	0	Null	2.527090248	Mid-high	0	Null	7.478307809	High
Tagetes erecta	10.25641026	High	9.772481907	High	1.484480432	Mid-low	0.709744492	Mid-low
Tagetes filifolia	4.790419162	Mid-high	2.242192811	Mid-high	27.54491018	High	4.406413691	Mid-high
Tagetes foetidissima	0	Null	0.69574953	Mid-low	8.163265306	Mid-high	8.063097285	High
Tagetes lucida	0	Null	6.207765205	High	0	Null	3.479747291	Mid-high
Tagetes micrantha	0.778210117	Low	4.825262905	Mid-high	0	Null	4.814266864	Mid-high
Tagetes pringlei	33.33333333	High	4.634331641	High	16.66666667	Mid-high	4.870246711	High
Tagetes stenophylla	0	Null	3.303810628	Mid-high	12.24489796	Mid-high	3.446759167	Mid-high
Tagetes subulata	4.184100418	Mid-low	1.444479987	Mid-low	4.184100418	Mid-low	3.734655524	Mid-high
Theobroma cacao	2.816901408	Mid-low	8.129073534	High	2.816901408	Mid-low	11.37390539	High
Tripsacum dactyloides var. *hispidum*								
Tripsacum intermedium	0	Null	0.422847775	Low	0	Null	5.144148107	Mid-high
Tripsacum lanceolatum	0.421940928	Low	5.48202647	High	0.421940928	Low	5.982846175	High
Tripsacum laxum	0	Null	0.064976608	Low	0	Null	0.727738014	Mid-low
Tripsacum maizar	20	Mid-high	8.711863729	High	0	Null	13.4291655	High
Tripsacum pilosum	0	Null	0.180934863	Low	0	Null	0.680754928	Mid-low
Vanilla planifolia	6.25	Mid-high	9.175696749	High	0	Null	7.570274701	High
Zea diploperennis	0	Null	0.77172218	Mid-low	0	Null	0.61977688	Mid-low
Zea mays subsp. *mexicana*	10	High	6.496661202	Mid-high	69.14893617	High	6.71558239	High

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	Category 22				Category 23			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	8.222222222	Mid-high	0.831700588	Mid-low	4.444444444	Mid-low	2.631052821	Mid-high
Zea perennis	0	Null	6.531648607	High	3.448275862	Low	3.667679635	Mid-high

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	Category 24				Category 25			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	0.60851927	Low	1.047622856	Mid-low	2.636916836	Mid-high	3.954576353	Mid-high
Agave atrovirens	0	Null	1.861329921	Mid-low	0	Null	0.54280459	Mid-low
Agave congesta	0	Null	4.133511936	Mid-high	27.27272727	Mid-high	0.127953937	Low
Agave datylio	0	Null	14.06293734	High	0	Null	1.318525331	Mid-low
Agave fourcroydes	0	Null	3.743652285	High	0	Null	3.47274981	Mid-high
Agave hiemiflora	0	Null	3.842616658	Mid-high	0	Null	0.094965812	Low
Agave hurteri	44.44444444	High	15.8702867	High				
Agave karwinskii	51.92307692	High	11.79775281	High	0	Null	0.00199928	Low
Agave macroacantha	0	Null	1.908313007	Mid-low	0	Null	13.83302011	High
Agave macroculmis	17.39130435	High	3.771642209	Mid-high	0	Null	0.717741613	Mid-low
Agave rhodacantha	15.68627451	High	10.78911592	High	0	Null	0.051981287	Low
Agave seemanniana	17.64705882	Mid-high	5.030189132	Mid-high	5.882352941	Mid-low	7.524291255	High
Agave sisalana	0	Null	6.997480907	High	0	Null	1.251549442	Mid-low
Agave tequilana	0	Null	5.190131553	Mid-high	0	Null	1.064616738	Mid-low
Amaranthus australis	0	Null	4.597344956	Mid-high	0	Null	12.50349874	High
Amaranthus blitoides	0	Null	4.159502579	Mid-high				
Amaranthus caudatus	9.523809524	Mid-high	2.784997401	Mid-high	0	Null	0.185933064	Low
Amaranthus cruentus	4.761904762	Mid-low	6.243752249	Mid-high	0	Null	0.061977688	Low
Amaranthus dubius	0	Null	0.321884122	Mid-low	0	Null	15.36346915	High
Amaranthus fimbriatus	0	Null	0.130952857	Low	0	Null	0.081970491	Low
Amaranthus greggii	0	Null	3.071894118	Mid-high	0	Null	0.46483266	Low
Amaranthus hybridus	5.327245053	Mid-high	0.869686913	Mid-low	0.304414003	Low	0.112959335	Low
Amaranthus hypochondriacus	4.255319149	Mid-high	4.507377344	High	1.063829787	Low	1.650405854	Mid-low
Amaranthus palmeri	0	Null	0.008996761	Low				
Amaranthus polygonoides	0	Null	4.836258947	High	3.225806452	Low	1.113599104	Mid-low
Amaranthus powellii	0	Null	2.218201447	Mid-high	0	Null	0.489823663	Mid-low
Amaranthus scariosus	2.127659574	Low	10.67815586	High	0	Null	0.259906434	Low
Amaranthus spinosus	3.47826087	Mid-high	6.798552521	High	23.26086957	High	3.579711304	Mid-high
Amaranthus torreyi	0	Null	0.050981647	Low	0	Null	6.856531649	High
Annona cherimola	1.470588235	Mid-low	6.643608301	High	0.294117647	Low	3.904594346	Mid-high
Annona glabra	0	Null	10.57919149	High	0	Null	10.41724979	High
Annona globiflora	4.825737265	Mid-high	2.050261906	Mid-high	12.86863271	High	3.888600104	Mid-high
Annona liebmanniana	0	Null	2.952936943	Mid-high	0	Null	1.302531089	Mid-low

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	Category 24				Category 25			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	4.347826087	Mid-low	1.989283858	Mid-low	5.797101449	Mid-high	1.918309409	Mid-low
Annona macroprophyllata	1.538461538	Low	1.088608101	Mid-low	1.538461538	Low	0.22791795	Low
Annona muricata	0	Null	4.16650006	Mid-high	0	Null	2.307169419	Mid-high
Annona purpurea	2.777777778	Low	0.254908233	Low	0	Null	0.245911472	Low
Annona reticulata	1.183431953	Low	2.448118677	Mid-low	7.297830375	High	5.780918869	High
Annona squamosa	0	Null	0.036986685	Low	54.41696113	High	15.01059619	High
Bixa orellana	5.166051661	Mid-high	0.517813587	Mid-low	8.856088561	High	2.00827702	Mid-high
Byrsonima crassifolia	1.515151515	Mid-high	0.945659563	Mid-low	29.004329	High	10.44823863	High
Capsicum annuum var. *glabriusculum*	0	Null	0.067975529	Low	3.448275862	Mid-high	2.527090248	Mid-low
Capsicum frutescens	0	Null	0.205925867	Low	0	Null	11.42188812	High
Carica papaya	4.72972973	Mid-high	0.493822224	Mid-low	8.445945946	Mid-high	1.30852893	Mid-low
Carya illinoinensis	0	Null	2.257187413	Mid-low	15.10791367	High	7.130433044	High
Carya ovata	24.75247525	High	1.297532888	Mid-low	0.99009901	Low	0.77272182	Mid-low
Carya palmeri	2.380952381	Low	5.059178696	Mid-high	2.380952381	Low	0.630772922	Mid-low
Crataegus mexicana	0.401606426	Low	7.79219481	High	3.212851406	Mid-high	0.218921188	Low
Cucurbita argyrosperma	23.04147465	High	9.786476868	High	0	Null	0.005997841	Low
Cucurbita argyrosperma subsp. *sororia*	2.227171492	Mid-high	4.377424127	Mid-high	4.899777283	Mid-high	2.302171218	Mid-low
Cucurbita cordata	0	Null	0.087968331	Low	0	Null	0.991643009	Mid-low
Cucurbita digitata								
Cucurbita foetidissima	0	Null	1.597424927	Mid-low	0	Null	3.751649406	Mid-high
Cucurbita lundelliana	0	Null	0.447838778	Low	0	Null	2.533088088	Mid-low
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	0.213922988	Low	0	Null	0.321884122	Low
Cucurbita palmata	0	Null	0.059978408	Low				
Cucurbita pedatifolia	36.47058824	High	8.683873805	High	9.411764706	Mid-high	5.889879643	High
Cucurbita pepo subsp. *fraterna*	0	Null	9.462593466	High	0	Null	7.427326163	High
Cucurbita radicans	0	Null	0.016993882	Low	0	Null	0.086968691	Low
Diospyros conzattii	0	Null	5.638969971	Mid-high	0	Null	0.022991723	Low
Gossypium aridum	0	Null	0.036986685	Low	1.428571429	Mid-low	0.38886001	Low
Gossypium barbadense	0	Null	3.900595786	Mid-high	0	Null	7.361349914	High
Gossypium gossypioides	2.222222222	Low	6.547642849	High	0	Null	0.083969771	Low

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	Category 24				**Category 25**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	3.098927294	High	10.9480587	High	0	Null	2.9319445	Mid-high
Gossypium thurberi	7.692307692	Mid-high	2.516094206	Mid-high	33.33333333	High	22.69782878	High
Helianthus laciniatus	0	Null	2.257187413	Mid-high				
Helianthus niveus	0	Null	3.109880443	Mid-high	0	Null	1.218561318	Mid-low
Hylocereus ocamponis	8.510638298	High	0.802711024	Mid-low	38.29787234	High	6.050821704	Mid-high
Ipomoea batatas	3.719008264	Mid-high	2.442120836	Mid-high	3.719008264	Mid-high	4.344436003	High
Ipomoea tiliacea	2.645502646	Mid-low	1.334519573	Mid-low	6.878306878	High	0.555799912	Mid-low
Ipomoea trifida	0	Null	0.260906074	Low	8.767772512	High	2.965932264	Mid-high
Ipomoea triloba	0.995024876	Low	12.69642929	High	0.995024876	Low	1.213563117	Mid-low
Jacaratia dolichaula	50	High	7.746211364	High	0	Null	0.740733336	Mid-low
Jacaratia mexicana	0	Null	3.888600104	Mid-high	0	Null	8.839817666	High
Jarilla heterophylla	0	Null	1.756367708	Mid-low	0	Null	0.093966172	Low
Jatropha andrieuxii	0	Null	9.616538046	High	0	Null	0.760726139	Mid-low
Jatropha mcvaughii	0	Null	0.063976968	Low	0	Null	0.575792715	Mid-low
Leucaena confertiflora	0	Null	11.10900076	High	0	Null	2.099244272	Mid-low
Leucaena diversifolia	0	Null	3.867607661	Mid-high	0.225733634	Low	5.252109241	High
Leucaena esculenta	1.024590164	Mid-low	0.46283338	Low	4.713114754	Mid-high	1.641409093	Mid-low
Leucaena lanceolata	0	Null	0.61677796	Low	0	Null	0.086968691	Low
Leucaena leucocephala	0.897867565	Mid-low	0.390859291	Low	1.459034792	Mid-high	1.122595865	Mid-low
Manihot aesculifolia	1.34529148	Low	0.911671798	Mid-low	5.829596413	High	1.414490783	Mid-low
Manihot angustiloba								
Manihot caudata	5.357142857	Mid-high	13.92798593	High	3.571428571	Mid-low	2.532088448	Mid-low
Manihot chlorosticta	0	Null	0.050981647	Low	0	Null	1.485465233	Mid-low
Manihot davisiae	0	Null	8.440961254	High	0	Null	6.514654724	High
Manihot foetida	0	Null	0.413851014	Mid-low	0	Null	0.088967972	Low
Manihot michaelis	48.14814815	High	11.61281939	High	0	Null	2.754008557	Mid-high
Manihot oaxacana	0	Null	4.000559798	Mid-high	0.877192982	Low	12.81938502	High
Manihot pauciflora	6.779661017	Mid-high	21.64620737	High	1.694915254	Low	3.400775721	Mid-high
Manihot pringlei	0	Null	0.727738014	Mid-low	0	Null	7.653244832	High
Manihot rhomboidea	14.28571429	Mid-high	6.532648247	High	0	Null	0.083969771	Low
Manihot rhomboidea subsp. *microcarpa*	0	Null	10.93206446	High	0	Null	0.668759247	Mid-low
Manihot rubricaulis	14.28571429	High	6.361709784	High	32.77310924	High	20.30768923	High

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	Category 24				Category 25			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	0	Null	8.622895758	High	0	Null	0.529809269	Mid-low
Manihot tomatophylla	0	Null	0.497820785	Mid-low	0	Null	14.88464153	High
Manilkara chicle								
Manilkara zapota	0	Null	0.831700588	Mid-low	0.447427293	Mid-low	12.75340877	High
Opuntia atropes	0	Null	2.769003159	Mid-high	0	Null	0.062977328	Low
Opuntia ficus-indica	0.840336134	Low	10.89307849	High	0.840336134	Low	0.144947819	Low
Opuntia hyptiacantha	0	Null	0.23391579	Low	0	Null	7.709224679	High
Opuntia lasiacantha	0	Null	11.8897197	High	0	Null	0.08097085	Low
Opuntia spinulifera	0	Null	1.063617098	Mid-low	0	Null	1.359510576	Mid-low
Opuntia streptacantha	0	Null	0.434843456	Mid-low	0	Null	7.368347395	High
Opuntia undulata	0	Null	2.798992363	Mid-high	0	Null	7.576272542	High
Opuntia velutina	0	Null	2.919948818	Mid-high	0	Null	0.269902835	Low
Pachyrhizus erosus								
Persea americana	0.591715976	Low	10.73013715	High	1.57790927	Mid-low	7.954136511	High
Persea schiedeana	22.64150943	Mid-high	7.620256708	High	1.886792453	Low	0.447838778	Mid-low
Phaseolus acutifolius	9.756097561	High	8.198048702	High	1.99556541	Mid-low	1.790355472	Mid-low
Phaseolus acutifolius var. *acutifolius*	4.117647059	Mid-low	2.295173737	Mid-high				
Phaseolus acutifolius var. *tenuifolius*	2.912621359	Mid-low	2.850973649	Mid-high	16.50485437	High	5.229117518	High
Phaseolus coccineus	0.108695652	Low	2.490103563	Mid-low	0.543478261	Mid-low	3.343796233	Mid-high
Phaseolus coccineus subsp. *coccineus*	3.048780488	Mid-high	1.280539006	Mid-low	10.97560976	High	15.86328922	High
Phaseolus dumosus	0.675675676	Low	2.891958895	Mid-high	0	Null	0.961653805	Mid-low
Phaseolus filiformis	0	Null	0.325882682	Low	0.204498978	Low	5.961853733	High
Phaseolus maculatus subsp. *ritensis*								
Phaseolus parvifolius	0	Null	7.822184014	High	0	Null	7.508297013	Mid-high
Phaseolus vulgaris	0.422832981	Mid-low	3.152864969	Mid-high	1.338971106	Mid-low	10.07137431	High
Physalis acutifolia	3.370786517	Mid-low	12.2285977	High	1.123595506	Low	8.463952977	High
Physalis ampla	0	Null	0.061977688	Low				
Physalis angulata	0	Null	0.07697229	Low				
Physalis crassifolia	67.69230769	High	21.54424407	High	0	Null	4.577352153	Mid-high

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	Category 24				Category 25			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae								
Physalis philadelphica	0.550964187	Low	5.893878204	High	3.581267218	High	18.3563917	High
Physalis sulphurea	0	Null	0.255907873	Low	0	Null	0.046983086	Low
Pinus ayacahuite	0	Null	0.292894558	Low	0	Null	3.198848415	Mid-high
Pinus cembroides	0	Null	2.281178776	Mid-high	0	Null	0.147946739	Low
Pithecellobium dulce	1.489971347	Mid-high	1.985285297	Mid-low	3.209169054	High	2.332160422	Mid-low
Porophyllum gracile	0	Null	0.497820785	Low	7.534246575	Mid-high	5.588987964	High
Porophyllum linaria	3	Mid-low	2.661042025	Mid-high	0	Null	0.062977328	Low
Porophyllum ruderale	0	Null	0.362869367	Low	0	Null	0.214922628	Low
Porophyllum scoparium	0	Null	0.266903915	Low	10.84337349	High	11.42988524	High
Pouteria campechiana	0	Null	2.877963933	Mid-high	0	Null	6.265744332	Mid-high
Pouteria durlandii	0	Null	4.993202447	Mid-high	0	Null	0.470830501	Low
Pouteria reticulata	0	Null	0.826702387	Mid-low	79.45205479	High	12.77440122	High
Pouteria sapota	0	Null	2.666040226	Mid-high	0	Null	1.267543684	Mid-low
Psidium guajava	3.135888502	Mid-low	13.72106042	High				
Psidium guineense	15.51724138	High	2.464112919	Mid-high	10.34482759	High	2.718021512	Mid-high
Psidium oligospermum	0	Null	2.249190291	Mid-high	1.142857143	Low	10.99904035	High
Salvia axillaris	0	Null	4.373425567	Mid-high	9.803921569	Mid-high	3.754648327	Mid-high
Salvia carnea	0	Null	10.38326203	High	0	Null	9.330640969	High
Salvia cinnabarina	5.952380952	Mid-low	0.360870087	Low	0	Null	0.004998201	Low
Salvia coccinea	3.75	Mid-high	1.935303291	Mid-low	0	Null	0.317885561	Low
Salvia columbariae	0	Null	1.689391819	Mid-high	0	Null	4.071534248	Mid-high
Salvia elegans	0	Null	0.003998561	Low				
Salvia fluviatilis	0	Null	15.32948139	High	0	Null	0.238913991	Low
Salvia helianthemifolia	0	Null	2.602063257	Mid-high	0	Null	4.275460834	Mid-high
Salvia hispanica	0	Null	7.236394898	High				
Salvia laevis	41.40625	High	8.25702747	High	0	Null	0.341876924	Mid-low
Salvia lasiantha	0	Null	0.15494422	Low	0	Null	1.054620337	Mid-low
Salvia lasiocephala	3.773584906	Mid-high	0.700747731	Mid-low	0.943396226	Low	7.5602783	High
Salvia longispicata	0	Null	0.081970491	Low	7.142857143	Mid-low	11.45087768	High
Salvia mexicana	0	Null	0.324883042	Low	0.540540541	Low	2.335159343	Mid-low
Salvia microphylla	16.42335766	High	2.205206126	Mid-low				
Salvia misella	1.801801802	Mid-low	0.487824383	Low	0	Null	1.117597665	Mid-low

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	Category 24				Category 25			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	0	Null	10.0663761	High	0	Null	18.71626215	High
Salvia occidentalis	17.87439614	High	14.07293374	High	2.415458937	Mid-high	4.186492863	Mid-high
Salvia patens	35.55555556	High	4.341437083	Mid-high	4.444444444	Mid-low	5.40205526	High
Salvia polystachia	3.703703704	Mid-high	1.203566716	Mid-low	0	Null	0.056979487	Low
Salvia prunelloides	0	Null	0.086968691	Low	0	Null	0.599784078	Mid-low
Salvia purpurea								
Salvia regla	0	Null	1.259546563	Mid-low	0	Null	3.088888	Mid-high
Salvia sanctae-luciae								
Salvia setulosa	0	Null	5.351073613	High	0	Null	9.763485145	High
Salvia thyrsiflora	0	Null	8.3349994	High	0	Null	9.681514655	High
Salvia tiliifolia	3.235294118	Mid-high	9.288656084	High	1.764705882	Mid-low	0.966652005	Mid-low
Sechium chinantlense	0	Null	2.860970051	Mid-high	0	Null	0.885681155	Low
Sechium compositum	0	Null	1.459474589	Mid-low	7.407407407	Low	0.414850654	Mid-low
Sechium edule subsp. *sylvestre*	3.225806452	Low	6.811547843	High	6.451612903	Mid-low	0.110960054	Low
Sechium hintonii	0	Null	3.16186173	Mid-high	0	Null	0.54080531	Low
Simmondsia chinensis	50.81967213	High	11.19696909	High	6.010928962	Mid-high	5.046183374	Mid-high
Solanum bulbocastanum	0.680272109	Mid-low	2.156223759	Mid-low	20.861678	High	11.92770603	High
Solanum cardiophyllum	0	Null	0.510816106	Low	0.833333333	Low	7.421328322	High
Solanum demissum	1.47275405	Mid-high	4.074533168	Mid-high	0.147275405	Low	0.418849214	Mid-low
Solanum ehrenbergii	2.234636872	Mid-low	0.640769323	Low	0.558659218	Low	0.919668919	Mid-low
Solanum hjertingii	8.75	High	7.684233676	High	0	Null	2.741013235	Mid-high
Solanum hougasii	0	Null	0.660762126	Mid-low	0	Null	0.363869007	Mid-low
Solanum iopetalum	0.264550265	Low	0.369866848	Low	0.793650794	Mid-low	4.827262186	Mid-high
Solanum morelliforme	16.8	High	5.898876404	Mid-high	0.8	Low	0.974649126	Mid-low
Solanum oxycarpum	8.641975309	Mid-high	0.981646607	Mid-low	3.703703704	Mid-low	10.79811268	High
Solanum pinnatisectum	0	Null	2.057259387	Mid-high	0	Null	0.499820065	Mid-low
Solanum polyadenium	0	Null	0.125954656	Low				
Solanum schenckii								
Solanum stenophyllidium	0	Null	0.684753489	Mid-low	0	Null	0.101963293	Low
Solanum stoloniferum	1.407284768	Mid-high	11.20596585	High	36.83774834	High	8.558918789	High
Solanum tarnii	0	Null	0.1519453	Low				
Solanum trifidum	0	Null	0.223919389	Low	0.775193798	Low	1.889319845	Mid-low
Solanum verrucosum	6.130268199	High	15.20152745	High	5.363984674	Mid-high	11.51185573	High

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	Category 24				Category 25			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Spondias mombin	0	Null	0.269902835	Low	42.58373206	High	9.211683794	High
Spondias purpurea	6.349206349	Mid-high	4.281458675	Mid-high	0.529100529	Low	0.23491543	Low
Stenocereus alamosensis	0	Null	0.444839858	Mid-low	0	Null	1.862329561	Mid-high
Stenocereus beneckei	0	Null	0.012995322	Low				
Stenocereus eruca	0	Null	7.274381223	High	0	Null	6.443680275	High
Stenocereus fricii	0	Null	5.78491743	High	0	Null	4.073533528	Mid-high
Stenocereus griseus	4	Mid-low	9.744491983	High	0	Null	0.097964733	Low
Stenocereus gummosus	53.96825397	High	11.20296693	High	0	Null	0.352872966	Mid-low
Stenocereus montanus	0	Null	6.347714823	High	0	Null	0.813707065	Mid-low
Stenocereus pruinosus	0	Null	0.662761406	Low	1	Low	12.18961174	High
Stenocereus queretaroensis								
Stenocereus stellatus	8.620689655	Mid-high	1.063617098	Mid-low	8.620689655	Mid-high	5.933863809	Mid-high
Stenocereus thurberi	0	Null	0.573793434	Low	0	Null	1.455476029	Mid-low
Stenocereus treleasei	5.263157895	Low	22.76080611	High	0	Null	0.367867568	Low
Tagetes erecta	1.619433198	Mid-low	0.939661722	Mid-low	3.50877193	Mid-high	0.467831581	Mid-low
Tagetes filifolia	0	Null	0.024991003	Low	1.19760479	Mid-low	0.897676836	Mid-low
Tagetes foetidissima	6.12244898	Mid-low	18.65628374	High	0	Null	0.46183374	Mid-low
Tagetes lucida	0	Null	10.83909792	High	0	Null	0.280898876	Low
Tagetes micrantha	0	Null	0.244911832	Low	10.50583658	High	8.080091167	High
Tagetes pringlei	31.66666667	High	2.70202727	Mid-low	1.666666667	Low	1.600423847	Mid-low
Tagetes stenophylla	32.65306122	Mid-high	3.200847695	Mid-high	0	Null	1.759366628	Mid-low
Tagetes subulata	0	Null	2.274181295	Mid-low	2.510460251	Mid-low	14.80467032	High
Theobroma cacao	0	Null	0.980646967	Mid-low	0	Null	0.092966532	Low
Tripsacum dactyloides var. *hispidum*								
Tripsacum intermedium	0	Null	19.18509337	High	0	Null	2.258187053	Mid-high
Tripsacum lanceolatum	0.843881857	Low	3.122875765	Mid-high	3.375527426	Mid-high	3.785637171	Mid-high
Tripsacum laxum	16.66666667	Mid-high	6.998480547	High	0	Null	8.686872726	High
Tripsacum maizar	0	Null	0.854692311	Low	10	Low	2.654044544	Mid-high
Tripsacum pilosum	0	Null	0.174937023	Low	0	Null	0.052980927	Low
Vanilla planifolia	1.5625	Low	4.052541085	Mid-high	1.5625	Low	1.594426007	Mid-low
Zea diploperennis	0	Null	9.640529409	High	0	Null	0.035987045	Low
Zea mays subsp. *mexicana*	0	Null	0.029989204	Low				

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	Category 24				**Category 25**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	19.33333333	High	1.890319485	Mid-high	8.444444444	Mid-high	1.675396857	Mid-low
Zea perennis	0	Null	5.434043744	Mid-high	0	Null	2.991922908	Mid-low

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	Category 26				Category 27			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Agave angustifolia	8.113590264	High	10.3552721	High	2.028397566	Mid-low	8.013115278	High
Agave atrovirens	5	Low	0.289895638	Low	0	Null	0.449838058	Low
Agave congesta	0	Null	0.321884122	Low	18.18181818	Mid-low	0.31188772	Low
Agave datylio								
Agave fourcroydes								
Agave hiemiflora								
Agave hurteri								
Agave karwinskii	0	Null	0.082970131	Low	0	Null	0.142948539	Low
Agave macroacantha	0	Null	2.00927666	Mid-high				
Agave macroculmis	0	Null	5.544004159	High	0	Null	13.7480507	High
Agave rhodacantha	0	Null	0.007997121	Low	9.803921569	Mid-high	0.633771842	Mid-low
Agave seemanniana	7.843137255	Mid-high	6.387700428	High	21.56862745	High	7.500299892	High
Agave sisalana	0	Null	4.793274421	Mid-high	0	Null	1.756367708	Mid-low
Agave tequilana	0	Null	0.599784078	Mid-low	0	Null	0.4658323	Mid-low
Amaranthus australis								
Amaranthus blitoides								
Amaranthus caudatus	4.761904762	Low	0.546803151	Mid-low	0	Null	0.468831221	Low
Amaranthus cruentus	0	Null	0.191930905	Low	0	Null	0.159942421	Low
Amaranthus dubius								
Amaranthus fimbriatus	0	Null	0.674757087	Mid-low	0	Null	0.508816826	Mid-low
Amaranthus greggii								
Amaranthus hybridus	9.741248097	High	5.763924987	High	11.56773212	High	8.015114559	High
Amaranthus hypochondriacus	8.510638298	Mid-high	2.217201807	Mid-high	15.95744681	High	15.46543244	High
Amaranthus palmeri								
Amaranthus polygonoides	6.451612903	Mid-high	2.799992003	Mid-high	0	Null	3.614698708	Mid-high
Amaranthus powellii	0	Null	0.003998561	Low	0	Null	0.200927666	Low
Amaranthus scariosus								
Amaranthus spinosus	3.695652174	Mid-high	1.183573913	Mid-low	5.652173913	Mid-high	2.844975809	Mid-high
Amaranthus torreyi	0	Null	9.33264025	High	0	Null	5.057179415	Mid-high
Annona cherimola	0	Null	0.471830141	Mid-low	0	Null	0.553800632	Mid-low
Annona glabra	0	Null	1.355512016	Mid-low				
Annona globiflora	0	Null	4.150505818	Mid-high	5.361930295	High	0.945659563	Mid-low
Annona liebmanniana	0	Null	6.32672238	Mid-high	4.166666667	Low	2.450117958	Mid-low

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	Category 26				**Category 27**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Annona longiflora	7.246376812	Mid-high	2.259186693	Mid-high	5.797101449	Mid-high	4.739293854	High
Annona macroprophyllata	0	Null	4.582350354	Mid-high	10.76923077	Mid-high	8.276020633	High
Annona muricata	0	Null	0.608780839	Mid-low	0	Null	0.740733336	Mid-low
Annona purpurea	0	Null	0.003998561	Low				
Annona reticulata	1.380670611	Mid-low	1.429485385	Mid-low	2.564102564	Mid-low	2.764004958	Mid-high
Annona squamosa	24.38162544	High	5.841896917	High				
Bixa orellana	7.749077491	Mid-high	0.857691231	Mid-low	43.17343173	High	11.74077332	High
Byrsonima crassifolia	31.38528139	High	10.6241753	High				
Capsicum annuum var. *glabriusculum*	9.961685824	High	7.466312128	High				
Capsicum frutescens	0	Null	12.91035227	High	0.261096606	Low	0.435843096	Mid-low
Carica papaya	1.689189189	Mid-low	0.056979487	Low				
Carya illinoinensis	16.54676259	High	22.70382662	High				
Carya ovata	0	Null	0.059978408	Low				
Carya palmeri	0	Null	2.560078372	Mid-high	14.28571429	High	0.343876205	Low
Crataegus mexicana	0	Null	0.068975169	Low	0.803212851	Mid-low	0.259906434	Low
Cucurbita argyrosperma	6.912442396	High	5.997840777	High	7.373271889	High	4.122515894	Mid-high
Cucurbita argyrosperma subsp. *sororia*	10.24498886	High	5.207125435	Mid-high	6.458797327	Mid-high	3.39877644	Mid-high
Cucurbita cordata	0	Null	0.777720021	Mid-low	0	Null	10.76212563	High
Cucurbita digitata								
Cucurbita foetidissima	0.41322314	Low	1.786356912	Mid-low	0.826446281	Mid-low	1.065616378	Mid-low
Cucurbita lundelliana	0	Null	0.072973729	Low	0	Null	1.682394338	Mid-low
Cucurbita okeechobeensis subsp. *martinezii*	0	Null	2.93094486	Mid-high	0	Null	0.160942061	Low
Cucurbita palmata								
Cucurbita pedatifolia	10.58823529	High	3.370786517	Mid-low				
Cucurbita pepo subsp. *fraterna*								
Cucurbita radicans	0	Null	0.15794314	Low				
Diospyros conzattii								
Gossypium aridum								
Gossypium barbadense	0	Null	2.309168699	Mid-low	0	Null	18.0325083	High
Gossypium gossypioides	40	High	3.147866768	Mid-high				

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	Category 26				Category 27			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Gossypium hirsutum	0.119189511	Low	0.171938102	Low	0	Null	0.450837698	Mid-low
Gossypium thurberi	0	Null	10.03838618	High	0	Null	4.136510856	Mid-high
Helianthus laciniatus								
Helianthus niveus	0	Null	1.194569955	Mid-low	0	Null	1.058618897	Mid-low
Hylocereus ocamponis	2.127659574	Low	1.166580031	Mid-high	4.255319149	Mid-low	0.739733696	Mid-low
Ipomoea batatas	2.892561983	Mid-high	1.638410172	Mid-low	6.611570248	High	4.24447199	High
Ipomoea tiliacea	2.645502646	Mid-low	0.323883402	Mid-low	2.645502646	Mid-low	0.898676476	Mid-low
Ipomoea trifida	3.317535545	Mid-high	1.692390739	Mid-low	0	Null	0.007997121	Low
Ipomoea triloba	0.995024876	Low	1.598424567	Mid-low	5.472636816	High	4.486384901	Mid-high
Jacaratia dolichaula	28.125	Mid-high	12.77939942	High				
Jacaratia mexicana	0	Null	23.57651246	High	0	Null	2.601063617	Mid-high
Jarilla heterophylla	0	Null	0.502818985	Low	0	Null	0.735735135	Mid-low
Jatropha andrieuxii	11.76470588	Mid-high	5.823903395	High	5.882352941	Low	0.747730817	Mid-low
Jatropha mcvaughii	0	Null	2.46911112	Mid-low	0	Null	1.125594786	Mid-low
Leucaena confertiflora	0	Null	8.866807949	High	0	Null	7.09544564	High
Leucaena diversifolia	0	Null	0.366867928	Mid-low	0	Null	0.369866848	Mid-low
Leucaena esculenta	2.049180328	Mid-low	0.818705266	Mid-low	5.327868852	Mid-high	1.871326323	Mid-high
Leucaena lanceolata	0	Null	0.161941701	Low				
Leucaena leucocephala	0.224466891	Low	0.510816106	Low				
Manihot aesculifolia	4.484304933	Mid-high	2.251189572	Mid-low	0.448430493	Low	0.062977328	Low
Manihot angustiloba								
Manihot caudata	0.892857143	Low	0.960654165	Mid-low	0	Null	1.792354752	Mid-low
Manihot chlorosticta	0	Null	2.560078372	Mid-high	0	Null	0.164940621	Low
Manihot davisiae	15	High	4.224479187	Mid-high	55	High	9.782478308	High
Manihot foetida	0	Null	0.219920829	Low	0	Null	0.082970131	Low
Manihot michaelis	7.407407407	Mid-low	5.433044104	Mid-high	0	Null	2.199208285	Mid-high
Manihot oaxacana	0	Null	4.570354672	Mid-high	0	Null	2.742012875	Mid-high
Manihot pauciflora	0	Null	2.142228798	Mid-low	0	Null	13.05929865	High
Manihot pringlei	0	Null	3.605701947	Mid-high	0	Null	8.353992563	High
Manihot rhomboidea	27.55102041	High	7.074453197	High				
Manihot rhomboidea subsp. *microcarpa*	0	Null	3.371786157	Mid-high	0	Null	0.786716782	Mid-low
Manihot rubricaulis	3.361344538	Mid-low	2.374145308	Mid-low				

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	Category 26				Category 27			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Manihot subspicata	0	Null	0.945659563	Mid-low	0	Null	0.417849574	Low
Manihot tomatophylla	0	Null	7.111439882	High	0	Null	0.125954656	Low
Manilkara chicle								
Manilkara zapota	0.223713647	Low	1.504458395	Mid-low	0.67114094	Mid-high	8.591906914	High
Opuntia atropes	0	Null	0.163940981	Low	0	Null	0.039985605	Low
Opuntia ficus-indica	0	Null	0.218921188	Low	0	Null	0.041984885	Low
Opuntia hyptiacantha	0	Null	6.138790036	High	0	Null	3.670678556	Mid-high
Opuntia lasiacantha	0	Null	0.258906794	Low	0	Null	2.993922188	Mid-high
Opuntia spinulifera	0	Null	2.056259746	Mid-high	0	Null	3.027909952	Mid-high
Opuntia streptacantha	1.181102362	Mid-low	5.507017474	Mid-high	0	Null	1.992282778	Mid-high
Opuntia undulata	0	Null	11.0800112	High	0	Null	4.069534967	Mid-high
Opuntia velutina	0	Null	1.151585429	Mid-low	0	Null	2.073253629	Mid-low
Pachyrhizus erosus								
Persea americana	0.591715976	Low	3.074893039	Mid-high	1.775147929	Mid-low	21.64520773	High
Persea schiedeana	30.18867925	High	1.435483226	Mid-low	7.547169811	Mid-low	0.140949258	Low
Phaseolus acutifolius	2.43902439	Mid-high	2.62405534	Mid-high	8.647450111	High	6.17077852	High
Phaseolus acutifolius var. *acutifolius*								
Phaseolus acutifolius var. *tenuifolius*	1.941747573	Low	1.417489704	Mid-low	4.854368932	Mid-high	1.46347315	Mid-low
Phaseolus coccineus	0.217391304	Low	9.385621176	High	0.434782609	Mid-low	6.663601104	High
Phaseolus coccineus subsp. *coccineus*	3.353658537	Mid-high	1.819345036	Mid-high	26.52439024	High	14.816666	High
Phaseolus dumosus	0	Null	0.589787676	Mid-low	0	Null	1.825342877	Mid-low
Phaseolus filiformis	0	Null	0.863689072	Mid-low	0.204498978	Low	3.408772842	Mid-high
Phaseolus maculatus subsp. *ritensis*								
Phaseolus parvifolius	0	Null	0.869686913	Mid-low				
Phaseolus vulgaris	0	Null	0.108960774	Low	1.338971106	Mid-low	10.3602703	High
Physalis acutifolia	0	Null	1.847334959	Mid-low				
Physalis ampla								
Physalis angulata								
Physalis crassifolia								

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	Category 26				Category 27			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Physalis lagascae								
Physalis philadelphica	0	Null	1.798352593	Mid-low	1.652892562	Mid-high	5.231116798	High
Physalis sulphurea	0	Null	0.15794314	Low	0	Null	0.034987405	Low
Pinus ayacahuite	0	Null	0.198928386	Low	0	Null	7.126434484	High
Pinus cembroides	0	Null	0.751729377	Mid-low	0	Null	0.513815027	Mid-low
Pithecellobium dulce								
Porophyllum gracile	0	Null	2.048262625	Mid-high				
Porophyllum linaria	0	Null	0.251909313	Low	0	Null	0.160942061	Low
Porophyllum ruderale	0.966183575	Mid-low	0.682754208	Mid-low	11.11111111	High	12.0116758	High
Porophyllum scoparium	4.819277108	Mid-low	5.905873885	High	2.409638554	Low	5.118157463	Mid-high
Pouteria campechiana	0	Null	7.025470831	High	0	Null	6.313727058	High
Pouteria durlandii	0	Null	1.00263905	Mid-low	0	Null	2.488104282	Mid-high
Pouteria reticulata	2.739726027	Mid-low	0.30489024	Low	13.69863014	Mid-high	0.863689072	Mid-low
Pouteria sapota	0	Null	5.229117518	High	2.380952381	Low	1.297532888	Mid-low
Psidium guajava								
Psidium guineense	1.724137931	Low	10.55120157	High	10.34482759	High	3.663681075	Mid-high
Psidium oligospermum	1.142857143	Low	7.972130033	High	0	Null	3.721660202	Mid-high
Salvia axillaris	0	Null	1.563437163	Mid-low	49.01960784	High	6.276740373	High
Salvia carnea	0	Null	5.396057419	Mid-high	0	Null	7.569275061	High
Salvia cinnabarina	10.71428571	Mid-high	0.960654165	Mid-low				
Salvia coccinea	8	High	5.694949818	High	2	Mid-low	5.509016754	Mid-high
Salvia columbariae	0	Null	1.293534328	Mid-high	0	Null	11.66679995	High
Salvia elegans								
Salvia fluviatilis	0	Null	2.46911112	Mid-low	0	Null	1.187572474	Mid-low
Salvia helianthemifolia	0	Null	9.532568275	High	0	Null	6.233755848	High
Salvia hispanica								
Salvia laevis	0	Null	0.004998201	Low				
Salvia lasiantha	0	Null	0.028989564	Low	0	Null	0.427845975	Low
Salvia lasiocephala	0	Null	0.777720021	Mid-low	1.886792453	Low	6.802551082	High
Salvia longispicata	0	Null	8.269023152	High	0	Null	0.945659563	Mid-low
Salvia mexicana	0	Null	0.010996041	Low	0	Null	8.665880283	High
Salvia microphylla								
Salvia misella	0	Null	0.008996761	Low				

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	Category 26				Category 27			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Salvia mocinoi	0	Null	2.306169779	Mid-low	0	Null	7.313367188	High
Salvia occidentalis	0	Null	1.126594426	Mid-low	3.8647343	Mid-high	19.44899836	High
Salvia patens	6.666666667	Mid-low	2.92894558	Mid-high	11.11111111	Mid-high	1.69738894	Mid-low
Salvia polystachia	2.777777778	Mid-low	0.69474989	Mid-low				
Salvia prunelloides	0	Null	3.457755208	Mid-high	0	Null	3.77863969	Mid-high
Salvia purpurea								
Salvia regla	0	Null	4.742292775	High	0	Null	6.775560798	High
Salvia sanctae-luciae								
Salvia setulosa	0	Null	4.32144428	Mid-high	0	Null	7.595265704	High
Salvia thyrsiflora								
Salvia tiliifolia	1.176470588	Low	2.7799992	Mid-low	0.294117647	Low	0.592786597	Mid-low
Sechium chinantlense	0	Null	5.107161422	High	0	Null	0.952657043	Mid-low
Sechium compositum	14.81481481	Mid-low	0.38886001	Low	0	Null	0.973649486	Mid-low
Sechium edule subsp. *sylvestre*	0	Null	0.111959695	Low	3.225806452	Low	0.250909673	Low
Sechium hintonii	0	Null	0.984645528	Mid-low	0	Null	2.362149626	Mid-high
Simmondsia chinensis	28.96174863	High	5.724939022	High				
Solanum bulbocastanum	44.21768707	High	7.447318965	High	2.721088435	Mid-high	1.793354392	Mid-low
Solanum cardiophyllum	0.416666667	Low	2.439121916	Mid-high				
Solanum demissum	0.58910162	Low	3.235835099	Mid-high	0	Null	0.633771842	Mid-low
Solanum ehrenbergii	2.234636872	Mid-low	3.70466632	Mid-high	1.117318436	Mid-low	2.026270543	Mid-high
Solanum hjertingii	6.25	Mid-high	9.253668679	High				
Solanum hougasii	0	Null	0.089967612	Low	0	Null	0.00099964	Low
Solanum iopetalum	0	Null	0.889679715	Mid-low	0.529100529	Low	4.01455476	Mid-high
Solanum morelliforme	0.8	Low	3.769642929	Mid-high	6.4	Mid-high	6.48066696	High
Solanum oxycarpum	0	Null	0.260906074	Low	0	Null	2.640049582	Mid-low
Solanum pinnatisectum	0	Null	2.998920389	Mid-high	0.934579439	Low	0.4658323	Low
Solanum polyadenium								
Solanum schenckii								
Solanum stenophyllidium	0	Null	0.420848495	Mid-low	0	Null	0.00099964	Low
Solanum stoloniferum	1.821192053	Mid-high	3.188852013	Mid-high	23.67549669	High	22.09604542	High
Solanum tarnii								
Solanum trifidum	0.775193798	Low	4.249470191	High				
Solanum verrucosum	0.191570881	Low	2.265184534	Mid-low				

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

	Category 26				Category 27			
CWR taxon	Accessions	Acce Class	ELC map	ELC map Class	Accessions	Acce Class	ELC map	ELC map Class
Spondias mombin	6.698564593	High	0.872685833	Mid-low	10.04784689	High	0.647766804	Mid-low
Spondias purpurea	8.994708995	Mid-high	7.549282258	High	3.703703704	Mid-high	2.648046703	Mid-high
Stenocereus alamosensis	0	Null	2.796993082	Mid-high	0	Null	2.995921468	Mid-high
Stenocereus beneckei								
Stenocereus eruca	0	Null	7.571274341	High				
Stenocereus fricii	0	Null	1.719381023	Mid-low				
Stenocereus griseus	0	Null	0.395857491	Mid-low				
Stenocereus gummosus	0	Null	5.308089088	Mid-high	0	Null	12.69043144	High
Stenocereus montanus	0	Null	4.194489984	Mid-high	0	Null	0.607781199	Mid-low
Stenocereus pruinosus	2	Mid-low	3.590707345	Mid-high	0	Null	4.504378424	High
Stenocereus queretaroensis								
Stenocereus stellatus	5.172413793	Low	9.145707545	High	6.896551724	Mid-low	5.676956296	Mid-high
Stenocereus thurberi	0	Null	2.875964653	Mid-high	1.315789474	Low	3.130872886	Mid-high
Stenocereus treleasei	0	Null	0.532808189	Mid-low	0	Null	5.667959535	High
Tagetes erecta	3.238866397	Mid-high	0.913671078	Mid-low	4.318488529	Mid-high	0.576792355	Mid-low
Tagetes filifolia								
Tagetes foetidissima	0	Null	0.637770403	Mid-low	0	Null	3.23983366	Mid-high
Tagetes lucida	0.223713647	Low	0.321884122	Low	0.223713647	Low	2.982926147	Mid-high
Tagetes micrantha	9.338521401	Mid-high	2.077252189	Mid-high	0	Null	0.030988844	Low
Tagetes pringlei	1.666666667	Low	5.779919229	High	1.666666667	Low	2.760006398	Mid-low
Tagetes stenophylla	0	Null	8.534927426	High	0	Null	7.956135791	High
Tagetes subulata	7.949790795	Mid-high	13.79603343	High				
Theobroma cacao	0	Null	0.553800632	Mid-low	0	Null	0.017993522	Low
Tripsacum dactyloides var. *hispidum*								
Tripsacum intermedium	0	Null	6.968491343	High				
Tripsacum lanceolatum	0.843881857	Low	1.471470271	Mid-low	0.843881857	Low	2.126234556	Mid-high
Tripsacum laxum	16.66666667	Mid-high	2.910952057	Mid-low				
Tripsacum maizar	60	High	2.068255428	Mid-low	0	Null	1.658402975	Mid-low
Tripsacum pilosum	0	Null	0.184933424	Low	0	Null	0.012995322	Low
Vanilla planifolia	0	Null	0.800711744	Mid-low	0	Null	1.282538286	Mid-low
Zea diploperennis	0	Null	0.300891679	Low	0	Null	0.242912551	Low
Zea mays subsp. *mexicana*								

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

	Category 26				**Category 27**			
CWR taxon	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**	**Accessions**	**Acce Class**	**ELC map**	**ELC map Class**
Zea mays subsp. *parviglumis*	11.11111111	Mid-high	3.70466632	Mid-high	26	High	2.682034468	Mid-high
Zea perennis	17.24137931	Mid-high	6.118797233	High	31.03448276	Mid-high	6.318725259	High

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CWR taxon	Chi Value	p Value
Agave angustifolia	379.4864339	9.999E-05
Agave atrovirens	138.6118482	0.00079992
Agave congesta	852.2326589	9.999E-05
Agave datylio	37.67189495	0.103989601
Agave fourcroydes	314.8896817	9.999E-05
Agave hiemiflora	750.240032	0.00029997
Agave hurteri	90.76562174	0.03689631
Agave karwinskii	151.5786057	0.00189981
Agave macroacantha	126.6625937	0.00729927
Agave macroculmis	86.31575949	0.0029997
Agave rhodacantha	171.2066188	0.00509949
Agave seemanniana	108.1073473	0.00059994
Agave sisalana	45.79435471	0.112188781
Agave tequilana	66.9012543	0.02519748
Amaranthus australis	317.3794955	0.00039996
Amaranthus blitoides	55.72493415	0.053094691
Amaranthus caudatus	176.4264871	0.00149985
Amaranthus cruentus	171.5791756	9.999E-05
Amaranthus dubius	193.2730718	0.00309969
Amaranthus fimbriatus	165.7313613	0.00039996
Amaranthus greggii	983.3201798	9.999E-05
Amaranthus hybridus	1219.508743	9.999E-05
Amaranthus hypochondriacus	384.7705575	9.999E-05
Amaranthus palmeri	111.0129944	0.0009999
Amaranthus polygonoides	44.76148309	0.077292271
Amaranthus powellii	229.5647368	0.00439956
Amaranthus scariosus	251.1826806	0.00069993
Amaranthus spinosus	1009.831174	9.999E-05
Amaranthus torreyi	231.0962455	9.999E-05
Annona cherimola	3346.36094	9.999E-05
Annona glabra	593.8927509	9.999E-05
Annona globiflora	1739.578077	9.999E-05
Annona liebmanniana	235.0574703	9.999E-05

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CWR taxon	Chi Value	p Value
Annona longiflora	246.4147786	9.999E-05
Annona macroprophyllata	263.7115698	9.999E-05
Annona muricata	234.5535101	0.00359964
Annona purpurea	389.8888095	0.00019998
Annona reticulata	1328.437592	9.999E-05
Annona squamosa	678.1483732	9.999E-05
Bixa orellana	761.2161177	9.999E-05
Byrsonima crassifolia	1266.865046	9.999E-05
Capsicum annuum var. *glabriusculum*	240.6885509	9.999E-05
Capsicum frutescens	865.2735878	9.999E-05
Carica papaya	955.0028896	9.999E-05
Carya illinoinensis	118.4136008	9.999E-05
Carya ovata	822.9244616	9.999E-05
Carya palmeri	527.584046	9.999E-05
Crataegus mexicana	795.5714536	9.999E-05
Cucurbita argyrosperma	473.6326186	0.00019998
Cucurbita argyrosperma subsp. *sororia*	1080.730802	9.999E-05
Cucurbita cordata	268.4530813	0.00029997
Cucurbita digitata	117.3176344	0.00159984
Cucurbita foetidissima	162.4034493	9.999E-05
Cucurbita lundelliana	553.6177093	9.999E-05
Cucurbita okeechobeensis subsp. *martinezii*	2211.92717	9.999E-05
Cucurbita palmata	83.70119163	0.01429857
Cucurbita pedatifolia	288.732744	9.999E-05
Cucurbita pepo subsp. *fraterna*	65.15276626	0.02859714
Cucurbita radicans	250.3773973	0.00049995
Diospyros conzattii	727.6583155	9.999E-05
Gossypium aridum	755.0137266	9.999E-05
Gossypium barbadense	208.3926143	0.00359964
Gossypium gossypioides	322.8480132	9.999E-05

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CWR taxon	Chi Value	p Value
Gossypium hirsutum	1427.858174	9.999E-05
Gossypium thurberi	35.93835413	0.190380962
Helianthus laciniatus	110.4317466	0.00019998
Helianthus niveus	277.0737051	9.999E-05
Hylocereus ocamponis	159.899027	0.00279972
Ipomoea batatas	773.5901456	9.999E-05
Ipomoea tiliacea	436.6274863	9.999E-05
Ipomoea trifida	1183.179066	9.999E-05
Ipomoea triloba	317.8169176	9.999E-05
Jacaratia dolichaula	242.1920027	0.00509949
Jacaratia mexicana	660.9562855	9.999E-05
Jarilla heterophylla	334.926208	0.00069993
Jatropha andrieuxii	85.48663316	0.02149785
Jatropha mcvaughii	53.59195042	0.052394761
Leucaena confertiflora	336.4062352	9.999E-05
Leucaena diversifolia	3088.981101	9.999E-05
Leucaena esculenta	702.7760571	9.999E-05
Leucaena lanceolata	1882.202535	9.999E-05
Leucaena leucocephala	2237.589014	9.999E-05
Manihot aesculifolia	332.4411014	9.999E-05
Manihot angustiloba	110.2293975	0.00879912
Manihot caudata	288.010096	0.00349965
Manihot chlorosticta	1267.122274	9.999E-05
Manihot davisiae	126.6975678	0.00319968
Manihot foetida	92.62645686	0.01559844
Manihot michaelis	95.61727354	0.02269773
Manihot oaxacana	591.9229078	9.999E-05
Manihot pauciflora	235.9755026	9.999E-05
Manihot pringlei	302.8183578	0.00019998
Manihot rhomboidea	183.4522266	9.999E-05
Manihot rhomboidea subsp. *microcarpa*	173.3781019	9.999E-05
Manihot rubricaulis	215.2829818	9.999E-05

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CWR taxon	Chi Value	p Value
Manihot subspicata	186.6209316	0.00019998
Manihot tomatophylla	298.8138481	9.999E-05
Manilkara chicle	192.0028011	0.01039896
Manilkara zapota	1574.763196	9.999E-05
Opuntia atropes	224.0925896	9.999E-05
Opuntia ficus-indica	389.5237676	9.999E-05
Opuntia hyptiacantha	766.7508067	9.999E-05
Opuntia lasiacantha	389.2127272	9.999E-05
Opuntia spinulifera	1001.561455	9.999E-05
Opuntia streptacantha	956.2371399	9.999E-05
Opuntia undulata	70.15904658	0.0239976
Opuntia velutina	200.2991153	9.999E-05
Pachyrhizus erosus	427.033587	9.999E-05
Persea americana	2333.510192	9.999E-05
Persea schiedeana	762.8239164	9.999E-05
Phaseolus acutifolius	116.0499082	9.999E-05
Phaseolus acutifolius var. *acutifolius*	94.78343061	9.999E-05
Phaseolus acutifolius var. *tenuifolius*	147.3999204	9.999E-05
Phaseolus coccineus	3534.950178	9.999E-05
Phaseolus coccineus subsp. *coccineus*	520.6777565	9.999E-05
Phaseolus dumosus	1199.635379	9.999E-05
Phaseolus filiformis	1175.371376	9.999E-05
Phaseolus maculatus subsp. *ritensis*	101.4154074	0.00049995
Phaseolus parvifolius	151.9797096	9.999E-05
Phaseolus vulgaris	3913.200046	9.999E-05
Physalis acutifolia	205.7880924	9.999E-05
Physalis ampla	9.881485091	0.822117788
Physalis angulata	77.64365199	0.01289871
Physalis crassifolia	164.7717685	9.999E-05

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CWR taxon	Chi Value	p Value
Physalis lagascae	188.4008461	9.999E-05
Physalis philadelphica	898.7365855	9.999E-05
Physalis sulphurea	180.8281641	0.00039996
Pinus ayacahuite	178.2739871	9.999E-05
Pinus cembroides	724.7004907	9.999E-05
Pithecellobium dulce	3005.546601	9.999E-05
Porophyllum gracile	382.5567071	9.999E-05
Porophyllum linaria	262.5069143	9.999E-05
Porophyllum ruderale	360.7325253	0.0029997
Porophyllum scoparium	171.6729986	0.00369963
Pouteria campechiana	994.9069969	9.999E-05
Pouteria durlandii	1338.563871	9.999E-05
Pouteria reticulata	479.4988878	9.999E-05
Pouteria sapota	171.6123092	9.999E-05
Psidium guajava	879.6272172	9.999E-05
Psidium guineense	1040.50215	9.999E-05
Psidium oligospermum	578.6352101	9.999E-05
Salvia axillaris	189.8063631	0.00019998
Salvia carnea	365.3494801	0.00159984
Salvia cinnabarina	385.7378254	9.999E-05
Salvia coccinea	808.505467	9.999E-05
Salvia columbariae	138.5177487	0.00159984
Salvia elegans	1597.61893	9.999E-05
Salvia fluviatilis	44.53483993	0.141385861
Salvia helianthemifolia	131.6329655	0.00149985
Salvia hispanica	337.016379	9.999E-05
Salvia laevis	322.9792282	0.00039996
Salvia lasiantha	73.46809466	0.01139886
Salvia lasiocephala	538.4510977	9.999E-05
Salvia longispicata	160.3535475	0.00149985
Salvia mexicana	654.0394879	9.999E-05
Salvia microphylla	885.8817217	9.999E-05
Salvia misella	182.7998572	0.00049995

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CWR taxon	Chi Value	p Value
Salvia mocinoi	986.1500333	9.999E-05
Salvia occidentalis	198.2370805	9.999E-05
Salvia patens	195.1286356	0.00019998
Salvia polystachia	315.4241707	9.999E-05
Salvia prunelloides	140.2314529	0.00019998
Salvia purpurea	1079.426279	9.999E-05
Salvia regla	219.7188861	9.999E-05
Salvia sanctae-luciae	140.91313	0.00479952
Salvia setulosa	298.442602	0.00059994
Salvia thyrsiflora	412.9041567	0.00219978
Salvia tiliifolia	688.3725001	9.999E-05
Sechium chinantlense	264.8878482	9.999E-05
Sechium compositum	425.8412976	9.999E-05
Sechium edule subsp. *sylvestre*	826.8451864	9.999E-05
Sechium hintonii	128.5348355	0.01169883
Simmondsia chinensis	592.4578437	9.999E-05
Solanum bulbocastanum	1178.653231	9.999E-05
Solanum cardiophyllum	499.747009	9.999E-05
Solanum demissum	1865.551557	9.999E-05
Solanum ehrenbergii	359.724181	9.999E-05
Solanum hjertingii	219.4662921	0.00019998
Solanum hougasii	224.8313591	0.00089991
Solanum iopetalum	1435.369611	9.999E-05
Solanum morelliforme	706.3999545	9.999E-05
Solanum oxycarpum	574.8669824	9.999E-05
Solanum pinnatisectum	606.8923445	0.00139986
Solanum polyadenium	393.6261741	9.999E-05
Solanum schenckii	484.4428287	0.00019998
Solanum stenophyllidium	240.495704	0.00259974
Solanum stoloniferum	1881.928126	9.999E-05
Solanum tarnii	149.5215639	0.00149985
Solanum trifidum	4659.585834	9.999E-05
Solanum verrucosum	1429.888399	9.999E-05

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CWR taxon	Chi Value	p Value
Spondias mombin	881.9656314	9.999E-05
Spondias purpurea	469.480175	9.999E-05
Stenocereus alamosensis	127.2060741	0.00189981
Stenocereus beneckei	493.5241163	0.00129987
Stenocereus eruca	184.1641699	0.00049995
Stenocereus fricii	92.92202172	0.02129787
Stenocereus griseus	168.7328504	0.00029997
Stenocereus gummosus	208.6508042	0.00019998
Stenocereus montanus	39.7754253	0.140085991
Stenocereus pruinosus	180.0328064	0.00269973
Stenocereus queretaroensis	248.8230103	9.999E-05
Stenocereus stellatus	224.5502801	0.00029997
Stenocereus thurberi	255.0818434	9.999E-05
Stenocereus treleasei	159.3573999	0.00269973
Tagetes erecta	1295.275806	9.999E-05
Tagetes filifolia	1002.393304	9.999E-05
Tagetes foetidissima	396.6501102	9.999E-05
Tagetes lucida	950.4761019	9.999E-05
Tagetes micrantha	645.3639338	9.999E-05
Tagetes pringlei	348.0430942	9.999E-05
Tagetes stenophylla	556.5429928	9.999E-05
Tagetes subulata	530.8044493	9.999E-05
Theobroma cacao	171.8665135	0.00019998
Tripsacum dactyloides var. *hispidum*	247.4435777	9.999E-05
Tripsacum intermedium	197.8403772	0.00369963
Tripsacum lanceolatum	354.6178332	9.999E-05
Tripsacum laxum	62.67774501	0.02149785
Tripsacum maizar	174.6858613	0.00339966
Tripsacum pilosum	304.8990387	9.999E-05
Vanilla planifolia	177.7398981	9.999E-05
Zea diploperennis	325.482511	9.999E-05
Zea mays subsp. *mexicana*	3072.727682	9.999E-05

Supplementary Table 3.6. Distribution of frequencies of the accessions per ELC zone and frequencies of the availability of each zone in Mexico. The classification of the zones according to the representativeness of the frequencies is included. The ELC categories are different for each species (*e.g.* Category 1 of *Agave angustifolia* is different from Category 1 of *Agave atrovirens*, etc.) (continued)

CWR taxon	Chi Value	p Value
Zea mays subsp. *parviglumis*	2596.224155	9.999E-05
Zea perennis	122.9243317	0.00209979

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
C.A.D.N.R. 043 Estado de Nayarit	87	Natural Resources Protection Area Forest Protection Zone	Aguascalientes, Jalisco, Durango, Nayarit, Zacatecas	2,329,026.8	23,290.3	0.0000374	0.00374
Sierra Gorda	71	Biosphere Reserve	Querétaro, Guanajuato, San Luis Potosí, Hidalgo	383,567.4	3,835.7	0.0001851	0.01851
Tehuacán-Cuicatlán	67	Biosphere Reserve	Puebla, Oaxaca	490,186.9	4,901.9	0.0001367	0.01367
Z.P.F.T.C.C. de los ríos Valle de Bravo, Malacatepec, Tilostoc y Temascaltepec	51	Natural Resources Protection Area	Estado de México	140,234.4	1,402.3	0.0003637	0.03637
Los Tuxtlas	47	Biosphere Reserve	Veracruz	155,122.5	1,551.2	0.0003030	0.03030
Sierra de Manantlán	47	Biosphere Reserve	Jalisco, Colima	139,577.1	1,395.8	0.0003367	0.03367
Cañón del Río Blanco	47	Natural Park	Veracruz, Puebla	48,799.8	488.0	0.0009631	0.09631
Sierra Gorda de Guanajuato	35	Biosphere Reserve	Guanajuato, Querétaro	236,882.8	2,368.8	0.0001478	0.01478
Z.P.F. en los terrenos que se encuentran en los mpios. de La Concordia, Ángel Albino Corzo, Villa Flores y Jiquipilas	35	Forest Protection Zone	Chiapas	177,546.2	1,775.5	0.0001971	0.01971
Sierra de Álamos-Río Cuchujaqui	35	Wild and Acuatic Flora and Fauna Protection Area	Sonora, Sinaloa, Chihuahua	92,889.7	928.9	0.0003768	0.03768
El Tepozteco	35	Natural Park	Morelos, Ciudad de México	23,258.7	232.6	0.0015048	0.15048
Cañón del Sumidero	34	Natural Park	Chiapas	21,789.4	217.9	0.0015604	0.15604
Tutuaca	33	National Forest Reserve and Flora and Fauna Refuge Zone	Chihuahua, Sonora	436,985.7	4,369.9	0.0000755	0.00755
Sierra de Nanchititla	33	Natural Park	México	67,404.2	674.0	0.0004896	0.04896
Corredor Biológico Chichinautzin	33	Wild Flora and Fauna Protection Area	Ciudad de México, Morelos, Estado de México	37,302.4	373.0	0.0008847	0.08847
Islas del Golfo de California	31	Reserve and Refure Zone of Migratory Marine Birds and Wild Fauna	Baja California, Baja California Sur, Sonora, Sinaloa	374,553.6	3,745.5	0.0000828	0.00828
Sistema Lagunar Alvarado	31	Ramsar	Veracruz	267,010.0	2,670.1	0.0001161	0.01161
Mariposa Monarca	31	Biosphere Reserve	Michoacán, Estado de México	56,259.1	562.6	0.0005510	0.05510
Cumbres de Monterrey	29	Natural Park	Nuevo León, Coahuila	177,396.0	1,774.0	0.0001635	0.01635
Sierra de San Juan	29	State Biosphere Reserve	Nayarit	19,912.2	199.1	0.0014564	0.14564
El Vizcaíno	28	Biosphere Reserve	Baja California, Baja California Sur	2,259,003.0	22,590.0	0.0000124	0.00124
Cuencas y corales de la zona costera de Huatulco	28	Ramsar	Oaxaca	44,400.0	444.0	0.0006306	0.06306
Parque Nacional Cañón del Sumidero	28	Ramsar	Chiapas	21,789.0	217.9	0.0012851	0.12851
Sierra La Laguna	27	Biosphere Reserve	Baja California Sur	112,437.1	1,124.4	0.0002401	0.02401
Sierra de Huautla	27	Biosphere Reserve	Morelos, Puebla, Guerrero	59,030.9	590.3	0.0004574	0.04574
Valle de los Cirios	26	Forest Protection Zone and Refuge of Wild Fauna	Baja California	2,521,987.6	25,219.9	0.0000103	0.00103
Calakmul	26	Biosphere Reserve	Campeche	723,185.1	7,231.9	0.0000360	0.00360
Pico de Tancítaro	26	Flora and Fauna Protection Area	Michoacán	23,405.9	234.1	0.0011108	0.11108
Área de Protección de Flora y Fauna de Laguna de Términos	25	Ramsar	Campeche	705,016.0	7,050.2	0.0000355	0.00355

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Laguna de Términos	25	Flora and Fauna Protection Area	Campeche, Tabasco	547,278.7	5,472.8	0.0000457	0.00457
Montes Azules	24	Integral Biosphere Reserve	Chiapas	331,200.0	3,312.0	0.0000725	0.00725
Z.P.F.V. la Cuenca Hidrográfica del Río Necaxa	24	Prevented Forest Protection Zone	Hidalgo, Puebla	42,129.4	421.3	0.0005697	0.05697
Reserva de la Biosfera Chamela-Cuixmala	24	Ramsar	Jalisco	13,142.0	131.4	0.0018262	0.18262
Chamela-Cuixmala	24	Biosphere Reserve	Jalisco	13,141.7	131.4	0.0018262	0.18262
Pantanos de Centla	23	Biosphere Reserve	Tabasco, Campeche	302,706.6	3,027.1	0.0000760	0.00760
Pantanos de Centla (Tabasco)	23	Ramsar	Tabasco	302,706.0	3,027.1	0.0000760	0.00760
Selva El Ocote	23	Biosphere Reserve	Chiapas	101,288.2	1,012.9	0.0002271	0.02271
Sistema Tetzcotzinco	23	State Reserve	México	7,811.0	78.1	0.0029446	0.29446
Humedal Los Comondú	21	Ramsar	Baja California Sur	460,959.0	4,609.6	0.0000456	0.00456
Barranca de Metztitlán	21	Biosphere Reserve	Hidalgo	96,042.9	960.4	0.0002187	0.02187
El Ejido La Purísima	20	UMA	Baja California Sur	454,000.0	4,540.0	0.0000441	0.00441
Sierra de Tamaulipas	20	Biosphere Reserve	Tamaulipas	308,888.2	3,088.9	0.0000647	0.00647
Huatulco	20	Natural Park	Oaxaca	6,375.0	63.7	0.0031373	0.31373
Sian Ka'an	19	Ramsar	Quintana Roo	652,193.0	6,521.9	0.0000291	0.00291
La Sepultura	19	Biosphere Reserve	Chiapas	167,309.9	1,673.1	0.0001136	0.01136
Reserva Estatal Biocultural del Puuc	19	State Reserve	Yucatán	135,848.9	1,358.5	0.0001399	0.01399
Parque Otomí-Mexica	19	State Ecological, Recreational and Turistic Park	México	105,875.0	1,058.8	0.0001795	0.01795
Área Natural Protegida Altas Cumbres	19	Special Zone Subject to Ecological Conservation	Tamaulipas	30,327.9	303.3	0.0006265	0.06265
Cerro Viejo - Chupinaya - Los Sabinos	19	State Area of Hydrological Protection	Jalisco	23,177.0	231.8	0.0008198	0.08198
Bonampak	19	Natural Monument	Chiapas	4,357.4	43.6	0.0043604	0.43604
Balam-Kú	18	Zone Subject to Ecological Conservation	Campeche	409,200.4	4,092.0	0.0000440	0.00440
Sian Ka'an	18	Biosphere Reserve	Quintana Roo	375,011.9	3,750.1	0.0000480	0.00480
El Cielo	18	Biosphere Reserve	Tamaulipas	144,530.5	1,445.3	0.0001245	0.01245
Ejido Yecora	18	UMA	Sonora	24,250.0	242.5	0.0007423	0.07423
Real de Guadalcázar	17	State Reserve	San Luis Potosí	256,826.5	2,568.3	0.0000662	0.00662
Marismas Nacionales	17	Ramsar	Sinaloa, Nayarit	200,000.0	2,000.0	0.0000850	0.00850
Reserva Estatal Ciénegas y Manglares de la Costa Norte de Yucatán	17	State Reserve	Yucatán	54,776.7	547.8	0.0003104	0.03104
Iztaccíhuatl-Popocatépetl	17	Natural Park	Estado de México, Puebla, Morelos	39,819.1	398.2	0.0004269	0.04269
El Jabalí	17	Forest Protection Zone and Refuge of Wild Fauna	Colima	5,178.6	51.8	0.0032828	0.32828
Zicuirán-Infiernillo	16	Biosphere Reserve	Michoacán	265,117.8	2,651.2	0.0000604	0.00604
C.A.D.N.R. 026 Bajo Río San Juan	16	Natural Resources Protection Area Forest Protection Zone	Coahuila, Nuevo León	197,156.8	1,971.6	0.0000812	0.00812
Barranca del Río Santiago	16	Municipal Area of Hydrological Protection	Jalisco	17,729.9	177.3	0.0009024	0.09024
Reserva Estatal Geohidrol+¦gica Anillo de Cenotes	15	State Reserve	Yucatán	219,207.8	2,192.1	0.0000684	0.00684
Zona de Recursos Naturales Río Grande-San Pedro	15	Zone Subject to Ecological Conservation	México	91,578.0	915.8	0.0001638	0.01638
Nevado de Toluca	15	Flora and Fauna Protection Area	Estado de México	53,590.7	535.9	0.0002799	0.02799
Parque Estatal para la protección y fomento del Santuario del agua Laguna de Zumpango	15	State Park	México	20,108.8	201.1	0.0007459	0.07459

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Río Sabinas	14	Ramsar	Coahuila	603,123.0	6,031.2	0.0000232	0.00232
Sistema Ripario de la Cuenca y Estero de San José del Cabo	14	Ramsar	Baja California Sur	124,219.0	1,242.2	0.0001127	0.01127
Metlac-Río Blanco	14	Ecological Reserve	Veracruz	31,790.0	317.9	0.0004404	0.04404
La Región Volcánica Siete Luminarias	14	Natural Monument	Guanajuato	8,928.5	89.3	0.0015680	0.15680
Parque Estatal Santuario del agua y forestal Manantiales Cascada Diamantes	14	State Park Sanctuary of Water and Forest	México	7,055.0	70.5	0.0019844	0.19844
El Chico	14	Natural Park	Hidalgo	2,739.0	27.4	0.0051113	0.51113
C.A.D.N.R. 004 Don Martín	13	Natural Resources Protection Area Forest Protection Zone	Coahuila	1,519,385.0	15,193.9	0.0000086	0.00086
El Pinacate y Gran Desierto de Altar	13	Biosphere Reserve	Sonora	714,556.5	7,145.6	0.0000182	0.00182
Bavispe	13	National Forest Reserve and Flora and Fauna Refuge Zone	Sonora	200,900.7	2,009.0	0.0000647	0.00647
Sierra Fría	13	Wild State Area	Aguascalientes	112,090.0	1,120.9	0.0001160	0.01160
Áreas de Protección de Flora y Fauna de Nahá y Metzabok	13	Ramsar	Chiapas	7,215.8	72.2	0.0018016	0.18016
Volcán Nevado de Colima	13	Natural Park	Jalisco, Colima	6,554.8	65.5	0.0019833	0.19833
Nahá	13	Flora and Fauna Protection Area	Chiapas	3,847.4	38.5	0.0033789	0.33789
Reserva de la Biosfera Los Petenes	12	Ramsar	Campeche	282,857.0	2,828.6	0.0000424	0.00424
Papigochic	12	National Forest Reserve and Flora and Fauna Refuge Zone	Chihuahua	222,763.9	2,227.6	0.0000539	0.00539
Ejido Bramadero	12	UMA	Baja California	203,237.0	2,032.4	0.0000590	0.00590
Rosarito (Supendida temporal)	12	UMA	Baja California	173,400.0	1,734.0	0.0000692	0.00692
Ria Lagartos-Ria Celestun	12	UMA	Campeche	137,767.0	1,377.7	0.0000871	0.00871
Bienes Comunales Isla Tiburón	12	UMA	Sonora	120,756.0	1,207.6	0.0000994	0.00994
Los Petenes	12	Biosphere Reserve	Campeche	100,866.5	1,008.7	0.0001190	0.01190
Sierra de Pénjamo	12	Sustainable Use Area	Guanajuato	83,314.1	833.1	0.0001440	0.01440
Reserva de la Biosfera Ría Celestún	12	Ramsar	Campeche, Yucatán	81,482.3	814.8	0.0001473	0.01473
Ría Celestún	12	Biosphere Reserve	Campeche, Yucatán	61,926.6	619.3	0.0001938	0.01938
Cordón Pico El Loro-Paxtal	12	Zone Subject to Ecological Conservation	Chiapas	61,268.3	612.7	0.0001959	0.01959
Ría Lagartos	12	Biosphere Reserve	Yucatán, Quintana Roo	60,347.8	603.5	0.0001988	0.01988
Ría Lagartos (Yucatán)	12	Ramsar	Quintana Roo, Yucatán	60,347.8	603.5	0.0001988	0.01988
La Primavera	12	Forest Protection Zone and Refuge of Wild Fauna	Jalisco	30,500.0	305.0	0.0003934	0.03934
Siera de Los Agustinos	12	Sustainable Use Area	Guanajuato	7,177.9	71.8	0.0016718	0.16718
El Triunfo	11	Biosphere Reserve	Chiapas	119,177.3	1,191.8	0.0000923	0.00923
C.A.D.N.R. 001 Pabellón	11	Natural Resources Protection Area Forest Protection Zone	Aguascalientes, Zacatecas	97,699.7	977.0	0.0001126	0.01126
Pomaro	11	UMA	Michoacán	75,420.0	754.2	0.0001458	0.01458
Parque Estatal Santuario del agua Sistema Hidrológico Presa Huapango	11	State Park Sanctuary of Water	México	71,024.4	710.2	0.0001549	0.01549
Ensenada de Pabellones	11	Ramsar	Sinaloa	40,638.7	406.4	0.0002707	0.02707
Reserva Cuxtal	11	Zone Subject to Ecological Conservation	Yucatán	10,757.0	107.6	0.0010226	0.10226
Volcán Tacaná	11	Zone Subject to Ecological Conservation	Chiapas	10,638.2	106.4	0.0010340	0.10340

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Volcán Tacaná	11	Biosphere Reserve	Chiapas	6,378.4	63.8	0.0017246	0.17246
Xicoténcatl	11	Natural Park	Tlaxcala	851.3	8.5	0.0129214	1.29214
Sierra de Guadalupe	11	State Park	México	0	0	NA	NA
Reserva de la Biosfera Archipiélago de Revillagigedo	10	Ramsar	Colima	636,685.0	6,366.9	0.0000157	0.00157
Ejido Revolucion	10	UMA	Baja California	365,380.0	3,653.8	0.0000274	0.00274
Sierra de Lobos	10	Sustainable Use Area	Guanajuato	127,058.0	1,270.6	0.0000787	0.00787
Campamento Los Jaguares	10	UMA	Campeche	55,300.0	553.0	0.0001808	0.01808
Masiaca	10	UMA	Sonora	46,487.0	464.9	0.0002151	0.02151
Ejido Caoba	10	UMA	Quintana Roo	30,000.0	300.0	0.0003333	0.03333
Archipiélago de Revillagigedo	10	Biosphere Reserve	Colima	15,383.4	153.8	0.0006501	0.06501
Cerro Ayaqueme-Volcán Huehuel	10	State Reserve	México	13,404.3	134.0	0.0007460	0.07460
Lomas de Padierna	10	Natural Park	Ciudad de México	1,161.2	11.6	0.0086117	0.86117
Laguna Madre y Delta del Río Bravo	9	Flora and Fauna Protection Area	Tamaulipas	572,808.6	5,728.1	0.0000157	0.00157
Humedal La Sierra de Guadalupe	9	Ramsar	Baja California Sur	348,087.0	3,480.9	0.0000259	0.00259
Parque Nacional Bahía de Loreto	9	Ramsar	Baja California Sur	206,580.8	2,065.8	0.0000436	0.00436
Lago de Chapala	9	Ramsar	Jalisco, Michoacán	114,659.0	1,146.6	0.0000785	0.00785
Sistema Estuarino Puerto Arista	9	Ramsar	Oaxaca, Chiapas	62,138.5	621.4	0.0001448	0.01448
Parque Ecológico Recreativo de Tenancingo, Malinalco y Zumpahuacán	9	Ecological and Recreational Park	México	25,625.6	256.3	0.0003512	0.03512
Sierra de Álvarez	9	Forest Protection Zone and Refuge of Wild Fauna	San Luis Potosí	16,900.0	169.0	0.0005325	0.05325
Manglares y humedales de la Laguna de Sontecomapan	9	Ramsar	Veracruz	8,921.0	89.2	0.0010089	0.10089
Insurgente José María Morelos	9	Natural Park	Michoacán	7,191.8	71.9	0.0012514	0.12514
Yaxchilán	9	Natural Monument	Chiapas	2,621.3	26.2	0.0034335	0.34335
Grutas de Cacahuamilpa	9	Natural Park	Guerrero	1,600.0	16.0	0.0056250	0.56250
Islas del Pacífico de la Península de Baja California	8	Biosphere Reserve	Baja California, Baja California Sur	NA	NA	NA	NA
Complejo Lagunar Bahía Guásimas - Estero Lobos	8	Ramsar	Sonora	135,197.5	1,352.0	0.0000592	0.00592
Santuario del agua y forestal Subcuenca Tributaria Arroyo Sila	8	State Park Sanctuary of Water and Forest	México	55,505.6	555.1	0.0001441	0.01441
La Montaña Malinche o Matlalcuéyatl	8	Natural Park	Tlaxcala, Puebla	46,112.2	461.1	0.0001735	0.01735
Ejido San Javier	8	UMA	Baja California Sur	41,000.0	410.0	0.0001951	0.01951
Cerros El Culiacán y La Gavia	8	Sustainable Use Area	Guanajuato	32,661.5	326.6	0.0002449	0.02449
Casa Blanca Lodge II, Elota, Sinaloa	8	UMA	Sinaloa	31,805.0	318.1	0.0002515	0.02515
Nahuatlaca-Matlazinca	8	Natural Park	México	27,878.0	278.8	0.0002870	0.02870
Zapalinamé	8	Zone Subject to Ecological Conservation	Coahuila	25,384.4	253.8	0.0003152	0.03152
Pico de Orizaba	8	Natural Park	Veracruz, Puebla	19,750.0	197.5	0.0004051	0.04051
Santuario del agua Valle de Bravo	8	State Park Sanctuary of Water	México	15,365.2	153.7	0.0005207	0.05207
Sistema Lagunar Chichankanab	8	State Reserve	Quintana Roo	11,609.7	116.1	0.0006891	0.06891
Santiago Bayacora	8	UMA	Durango	10,244.0	102.4	0.0007809	0.07809
Humedales El Mogote - Ensenada de La Paz	8	Ramsar	Baja California Sur	9,184.1	91.8	0.0008711	0.08711
La Sierra Monte Negro	8	State Reserve	Morelos	7,724.9	77.2	0.0010356	0.10356
Cascada de Bassaseachic	8	Natural Park	Chihuahua	5,802.9	58.0	0.0013786	0.13786

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Lagunas de Zempoala	8	Natural Park	Morelos, Estado de México	4,790.0	47.9	0.0016701	0.16701
Sistema Lacustre Ejidos de Xochimilco y San Gregorio Atlapulco	8	Ramsar	Distrito Federal	2,657.0	26.6	0.0030109	0.30109
La Mancha y El Llano	8	Ramsar	Veracruz	1,414.3	14.1	0.0056566	0.56566
Cerro El Potosí	8	Zone Subject to Ecological Conservation	Nuevo León	989.4	9.9	0.0080859	0.80859
Dzibilchantún	8	Natural Park	Yucatán	539.4	5.4	0.0148302	1.48302
El Zapotal	8	Recreational Ecologic Centre	Chiapas	100.0	1.0	0.0800000	8.00000
Parque Francisco Javier Clavijero	8	Ecological Park	Veracruz	76.9	0.8	0.1039771	10.39771
Janos	7	Biosphere Reserve	Chihuahua	526,482.4	5,264.8	0.0000133	0.00133
Ejido Santo Domingo	7	UMA	Baja California Sur	225,830.0	2,258.3	0.0000310	0.00310
Ejido Tepentu	7	UMA	Baja California Sur	113,938.0	1,139.4	0.0000614	0.00614
Sierra de Vallejo	7	State Biosphere Reserve	Nayarit	63,598.5	636.0	0.0001101	0.01101
Lacan-Tun	7	Biosphere Reserve	Chiapas	61,874.0	618.7	0.0001131	0.01131
Parque Estatal Ruta Huichola	7	State Park	Zacatecas	60,000.0	600.0	0.0001167	0.01167
Jaguar (Panthera onca goldmani) Chilam Balam	7	UMA	Campeche	46,321.0	463.2	0.0001511	0.01511
La Michilía	7	Forest Protection Zone and and Integral Biosphere Reserve	Durango	35,000.0	350.0	0.0002000	0.02000
Los Mármoles	7	Natural Park	Hidalgo	23,150.0	231.5	0.0003024	0.03024
Ejido Xbonil	7	UMA	Campeche	20,000.0	200.0	0.0003500	0.03500
Sierra de Otontepec	7	Ecological Reserve	Veracruz	15,152.0	151.5	0.0004620	0.04620
Lagunas de Montebello	7	Natural Park	Chiapas	6,425.5	64.3	0.0010894	0.10894
Parque Nacional Lagunas de Montebello	7	Ramsar	Chiapas	6,022.0	60.2	0.0011624	0.11624
Bosque Mesófilo Nevado de Colima	7	State Park	Jalisco	4,758.7	47.6	0.0014710	0.14710
El Troncon y Agua Zarca	7	UMA	Durango	4,169.0	41.7	0.0016791	0.16791
Cinegético Huaxtla	7	UMA	Morelos	2,735.0	27.4	0.0025594	0.25594
Ejidos de Xochimilco y San Gregorio Atlapulco	7	Zone Subject to Ecological Conservation	Distrito Federal	2,522.4	25.2	0.0027751	0.27751
Laguna de Chichankanab	7	Ramsar	Quintana Roo	1,998.9	20.0	0.0035019	0.35019
Insurgente Miguel Hidalgo y Costilla	7	Natural Park	Estado de México, Ciudad de México	1,890.0	18.9	0.0037038	0.37038
Bosque El Nixticuil-San Esteban-El Diente	7	Municipal Area of Hydrological Protection	Jalisco	1,591.4	15.9	0.0043986	0.43986
Desierto de los Leones	7	Natural Park	Ciudad de México	1,529.0	15.3	0.0045782	0.45782
Alto Golfo de California y Delta del Río Colorado	6	Biosphere Reserve	Baja California, Sonora	407,147.5	4,071.5	0.0000147	0.00147
Mapimí	6	Biosphere Reserve	Durango, Chihuahua, Coahuila	342,388.0	3,423.9	0.0000175	0.00175
Ejido Matomi	6	UMA	Baja California	224,076.0	2,240.8	0.0000268	0.00268
Maderas del Carmen	6	Flora and Fauna Protection Area	Coahuila	208,381.2	2,083.8	0.0000288	0.00288
Ecosistema Sierra de Ajos - Bavispe Zona de Influencia Cuenca Río San Pedro	6	Ramsar	Sonora	182,623.0	1,826.2	0.0000329	0.00329
Oasis de la Sierra El Pilar	6	Ramsar	Baja California Sur	180,802.6	1,808.0	0.0000332	0.00332
Sistema Lagunar Catazajá	6	Zone Subject to Ecological Conservation	Chiapas	41,058.8	410.6	0.0001461	0.01461
Presa Manuel +üvila Camacho (Presa Valsequillo)	6	Ramsar	Puebla	23,612.0	236.1	0.0002541	0.02541
Santa María Ostula	6	UMA	Michoacán	19,032.0	190.3	0.0003153	0.03153
Isla El Carmen	6	UMA	Baja California Sur	15,000.0	150.0	0.0004000	0.04000

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Bosencheve	6	Natural Park	Estado de México, Michoacán	14,599.6	146.0	0.0004110	0.04110
Cofre de Perote o Nauhcampatépetl	6	Natural Park	Veracruz	11,530.7	115.3	0.0005203	0.05203
Sierra de Tepotzotlán	6	State Park	México	10,299.5	103.0	0.0005826	0.05826
Cerro de La Estrella	6	Natural Park	Ciudad de México	1,183.3	11.8	0.0050704	0.50704
El Tecuán	6	Ecological Park	Durango	894.3	8.9	0.0067090	0.67090
Zona de Reserva Ecológica El Fortín, Cruz Blanca y Cerro del Crestún	6	Ecological Conservation Zone	Oaxaca	0	0	NA	NA
N. C. P. E. Lic. Alfredo V. Bonfil	5	UMA	Baja California Sur	519,000.0	5,190.0	0.0000096	0.00096
Humedales del Delta del Río Colorado (Sonora y Baja California)	5	Ramsar	Baja California, Sonora	250,000.0	2,500.0	0.0000200	0.00200
Marismas Nacionales Nayarit	5	Biosphere Reserve	Nayarit	133,854.4	1,338.5	0.0000374	0.00374
Balam-Kin	5	Zone Subject to Ecological Conservation	Campeche	90,123.9	901.2	0.0000555	0.00555
Sierra y Cañón de Jimulco	5	Ecological Reserve	Coahuila	60,458.3	604.6	0.0000827	0.00827
Sierra del Tentzo	5	State Reserve	Puebla	57,815.3	578.2	0.0000865	0.00865
Ejido Tres Garantias	5	UMA	Quintana Roo	44,000.0	440.0	0.0001136	0.01136
Zona Sujeta a Conservación Ecológica Sistema Lagunar Catazajá	5	Ramsar	Chiapas	41,058.8	410.6	0.0001218	0.01218
Lagunas de Santa María-Topolobampo-Ohuira	5	Ramsar	Sinaloa	22,500.0	225.0	0.0002222	0.02222
Sierra del Águila	5	State Area of Hydrological Protection	Jalisco	20,746.4	207.5	0.0002410	0.02410
Patrocipes	5	UMA	Sonora	20,185.0	201.9	0.0002477	0.02477
Selvas y Humedales de Cozumel	5	State Reserve	Quintana Roo	19,846.5	198.5	0.0002519	0.02519
Pinal del Zamorano	5	Conservation Reserve	Guanajuato	13,862.6	138.6	0.0003607	0.03607
Río Filobobos y su entorno	5	Natural Protected Area	Veracruz	10,528.3	105.3	0.0004749	0.04749
Parque Estatal Santuario del agua y forestal Manantial El Salto de Atlautla-Ecatzingo	5	State Park Sanctuary of Water and Forest	México	9,152.4	91.5	0.0005463	0.05463
Ejido Francisco R. Serrano	5	UMA	Baja California	6,178.0	61.8	0.0008093	0.08093
El Veladero	5	Natural Park	Guerrero	3,617.4	36.2	0.0013822	0.13822
El Rodeo	5	UMA	Coahuila	3,567.0	35.7	0.0014017	0.14017
Cinegético Quilamula	5	UMA	Morelos	2,502.0	25.0	0.0019984	0.19984
Cumbres del Ajusco	5	Natural Park	Ciudad de México	920.0	9.2	0.0054348	0.54348
Santa Cruz	5	UMA	Nuevo León	292.0	2.9	0.0171233	1.71233
Potrerillos	5	UMA	Jalisco	256.0	2.6	0.0195313	1.95313
Isla Isabel	5	Natural Park	Nayarit	194.2	1.9	0.0257506	2.57506
Ecosistema Arroyo verde APFF Sierra de Álamos Río Cuchujaqui	5	Ramsar	Sonora	174.1	1.7	0.0287158	2.87158
Parque Nacional Isla Isabel	5	Ramsar	Nayarit	93.7	0.9	0.0533390	5.33390
Santuario del Manatí	4	State Reserve	Quintana Roo	277,733.7	2,777.3	0.0000144	0.00144
Sistema Lagunar Agiabampo - Bacorehuis - R+¡o Fuerte Antiguo	4	Ramsar	Sonora, Sinaloa	90,804.5	908.0	0.0000441	0.00441
Cuatrociénegas	4	Flora and Fauna Protection Area	Coahuila	84,347.5	843.5	0.0000474	0.00474
Cuatrociénegas (Coahuila)	4	Ramsar	Coahuila	84,347.0	843.5	0.0000474	0.00474
Sierra de San Pedro Mártir	4	Natural Park	Baja California	72,910.7	729.1	0.0000549	0.00549
Reserva Estatal de Dzilam	4	State Reserve	Yucatán	69,039.3	690.4	0.0000579	0.00579

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Dzilam (Reserva Estatal)	4	Ramsar	Yucatán	61,706.8	617.1	0.0000648	0.00648
Meseta de Cacaxtla	4	Flora and Fauna Protection Area	Sinaloa	50,862.3	508.6	0.0000786	0.00786
Reserva Estatal El Palmar	4	Ramsar	Yucatán	50,177.4	501.8	0.0000797	0.00797
Santuario del agua y forestal Presa Villa Victoria	4	State Park Sanctuary of Water and Forest	México	46,772.5	467.7	0.0000855	0.00855
Loreto	4	UMA	Baja California Sur	43,755.0	437.6	0.0000914	0.00914
Oasis Sierra de La Giganta	4	Ramsar	Baja California Sur	41,181.4	411.8	0.0000971	0.00971
Ejido Guachochi	4	UMA	Chihuahua	20,385.0	203.9	0.0001962	0.01962
Navachiste	4	Zone Subject to Ecological Conservation	Sinaloa	17,055.8	170.6	0.0002345	0.02345
Macanguas	4	UMA	Campeche	15,566.0	155.7	0.0002570	0.02570
Laguna de Yuriria y su Zona de Influencia	4	Ecological Restoration Area	Guanajuato	15,020.5	150.2	0.0002663	0.02663
Laguna de Yuriria	4	Ramsar	Guanajuato	15,020.0	150.2	0.0002663	0.02663
Humedales de Yavaros - Moroncarit	4	Ramsar	Sonora	13,627.2	136.3	0.0002935	0.02935
Laguna de Chiricahueto	4	UMA	Sinaloa	13,162.0	131.6	0.0003039	0.03039
Bahía de San Quintín	4	Ramsar	Baja California	5,438.0	54.4	0.0007356	0.07356
Cumbres de Majalca	4	Natural Park	Chihuahua	4,701.3	47.0	0.0008508	0.08508
Isla Margarita	4	UMA	Baja California Sur	4,085.0	40.9	0.0009792	0.09792
El Batán	4	Ecological Reserve Zone	Querétaro	3,355.0	33.6	0.0011922	0.11922
Ciénegas del Lerma	4	Flora and Fauna Protection Area	Estado de México	3,024.0	30.2	0.0013228	0.13228
Ciénegas de Lerma	4	Ramsar	Estado de México	3,023.0	30.2	0.0013232	0.13232
Cinegético El Metate	4	UMA	Morelos	2,783.0	27.8	0.0014373	0.14373
Islas La Pajarera, Cocinas, Mamut, Colorada, San Pedro, San Agustín, San Andrés y Negrita y los Islotes Los Anegados, Novillas, Mosca y Submarino	4	Sanctuary	Jalisco	1,981.4	19.8	0.0020187	0.20187
Palenque	4	Natural Park	Chiapas	1,772.0	17.7	0.0022574	0.22574
Cerro Meyapac	4	Zone Subject to Ecological Conservation	Chiapas	1,741.6	17.4	0.0022967	0.22967
Balandra	4	Flora and Fauna Protection Area	Baja California Sur	1,319.5	13.2	0.0030314	0.30314
Parque Ecológico Cubitos	4	State Park	Hidalgo	904.5	9.0	0.0044223	0.44223
Cascadas de Texolo y su entorno	4	Ramsar	Veracruz	500.0	5.0	0.0080000	0.80000
San Carlos	4	UMA	Nuevo León	473.0	4.7	0.0084567	0.84567
Cerro de la Estrella	4	Ecological and Cultural Zone	Distrito Federal	121.8	1.2	0.0328488	3.28488
Sacromonte	4	Natural Park	Estado de México	43.7	0.4	0.0914615	9.14615
Islas del municipio de Mazatlán	4	Ecological Reserve Zone and Refure Zone of Migratory Marine Birds and Wild Flora and Fauna	Sinaloa	0	0	NA	NA
Parque Estatal de la Sierra de Tabasco	4	Ecological Reserve	Tabasco	0	0	NA	NA
Área de Protección de Flora y Fauna Laguna Madre	3	Ramsar	Tamaulipas	307,894.2	3,078.9	0.0000097	0.00097
Cañón de Santa Elena	3	Flora and Fauna Protection Area	Chihuahua	277,209.7	2,772.1	0.0000108	0.00108
Reserva de la Biosfera La Encrucijada	3	Ramsar	Chiapas	144,868.0	1,448.7	0.0000207	0.00207
Bala'an K'aax	3	Ramsar	Quintana Roo, Yucatán	131,610.0	1,316.1	0.0000228	0.00228
Bala'an K'aax	3	Flora and Fauna Protection Area	Quintana Roo, Yucatán, Campeche	128,390.2	1,283.9	0.0000234	0.00234
La Encrucijada	3	Biosphere Reserve	Chiapas	115,652.7	1,156.5	0.0000259	0.00259
Laguna de Tamiahua	3	Ramsar	Veracruz	88,000.0	880.0	0.0000341	0.00341
Sierra Picachos	3	Zone Subject to Ecological Conservation	Nuevo León	75,852.6	758.5	0.0000396	0.00396

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
El Palmar	3	State Reserve	Yucatán	47,931.5	479.3	0.0000626	0.00626
Abelardo Rodríguez Luján el Molinito	3	Zone Subject to Ecological Conservation	Sonora	28,185.2	281.9	0.0001064	0.01064
El Oso Bueno	3	State Park	México	15,288.0	152.9	0.0001962	0.01962
Humedal de Valsequillo	3	State Park	Puebla	13,784.3	137.8	0.0002176	0.02176
La Pera	3	Zone Subject to Ecological Conservation	Chiapas	7,506.6	75.1	0.0003996	0.03996
El Refugio-Campo de Buck	3	UMA	Chihuahua	7,000.0	70.0	0.0004286	0.04286
Cerro de la Silla	3	Natural Monument	Nuevo León	6,039.4	60.4	0.0004967	0.04967
Ejido Los Mimbres	3	UMA	Durango	5,072.0	50.7	0.0005915	0.05915
Cerro de Arandas	3	Sustainable Use Area	Guanajuato	4,816.2	48.2	0.0006229	0.06229
San Miguel Topilejo	3	Community Ecological Reserve	Distrito Federal	4,406.1	44.1	0.0006809	0.06809
El Temazcal	3	UMA	Durango	4,385.0	43.9	0.0006842	0.06842
Hierve El Agua	3	State Park	Oaxaca	4,125.1	41.3	0.0007273	0.07273
Laguna de Cuyutlán vasos III y IV	3	Ramsar	Colima	4,051.0	40.5	0.0007406	0.07406
La Pitaya	3	UMA	Nuevo León	3,635.0	36.4	0.0008253	0.08253
El Potrero del Pedregoso	3	UMA	Sonora	2,806.0	28.1	0.0010691	0.10691
Cinegético Xicatlacotla- Pueblo Viejo	3	UMA	Morelos	2,805.0	28.1	0.0010695	0.10695
Terrero de la Labor	3	UMA	Aguascalientes	2,785.0	27.9	0.0010772	0.10772
Cuenca de la Soledad	3	Ecological Restoration Area	Guanajuato	2,782.0	27.8	0.0010784	0.10784
Santuario del Agua Manantiales de Tiacaque	3	State Park Sanctuary of Water	México	2,193.3	21.9	0.0013678	0.13678
La Paila - El Xihuingo	3	State Ecological Reserve	Hidalgo	1,998.2	20.0	0.0015014	0.15014
San Nicolás Totolapan	3	Community Ecological Reserve	Distrito Federal	1,984.7	19.8	0.0015116	0.15116
Cerro de Garnica	3	Natural Park	Michoacán	1,936.0	19.4	0.0015496	0.15496
Santuario del agua y forestal Presa Guadalupe	3	State Park Sanctuary of Water and Forest	México	1,750.4	17.5	0.0017139	0.17139
Desierto del Carmen o de Nixcongo	3	Natural Park	Estado de México	529.0	5.3	0.0056711	0.56711
Barranca del Cupatitzio	3	Natural Park	Michoacán	458.2	4.6	0.0065472	0.65472
Playa de Maruata y Colola	3	Sanctuary	Michoacán	219.9	2.2	0.0136403	1.36403
La Quemada	3	State Park	Zacatecas	217.8	2.2	0.0137773	1.37773
Loma de Santa María y depresiones aledañas	3	Restoration and Environmetal Protection Zone	Michoacán	166.7	1.7	0.0179980	1.79980
Huitepec-Los Alcanfores	3	Zone Subject to Ecological Conservation	Chiapas	102.8	1.0	0.0291780	2.91780
Cerro del Fortín	3	State Park	Oaxaca	88.0	0.9	0.0340948	3.40948
Presa Jalpan	3	Ramsar	Querétaro	68.0	0.7	0.0441176	4.41176
Cerro Macuiltépetl	3	Ecological Park	Veracruz	0.03	0.0003	96.7741935	9677.41935
Huiricuta, los Lugares Sagrados y la Ruta Histórico Cultural del Pueblo Huichol	3	NA	San Luis Potosí	0	0	NA	NA
Ejido Las Guasimas	3	UMA	Colima	0	0	NA	NA
Área de Protección de Flora y Fauna Yum Balam	2	Ramsar	Quintana Roo	154,052.0	1,540.5	0.0000130	0.00130
N.C.P.E. Ley Federal de Aguas No. 3	2	UMA	Baja California Sur	115,000.0	1,150.0	0.0000174	0.00174
Uaymil	2	Flora and Fauna Protection Area	Quintana Roo	89,118.2	891.2	0.0000224	0.00224
San Emeterio	2	UMA	Sonora	73,051.0	730.5	0.0000274	0.00274
Laguna Playa Colorada - Santa María La Reforma	2	Ramsar	Sinaloa	53,140.0	531.4	0.0000376	0.00376
Yum Balam	2	Flora and Fauna Protection Area	Quintana Roo	52,307.6	523.1	0.0000382	0.00382
Parque Nacional Sistema Arrecifal Veracruzano	2	Ramsar	Veracruz	52,238.0	522.4	0.0000383	0.00383
Ejido Jamau	2	UMA	Baja California	46,243.0	462.4	0.0000432	0.00432

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Cañón del Usumacinta	2	Flora and Fauna Protection Area	Tabasco	46,128.5	461.3	0.0000434	0.00434
Corredor Costero La Asamblea - San Francisquito	2	Ramsar	Baja California	44,303.8	443.0	0.0000451	0.00451
Humedales de Bahía Adaír	2	Ramsar	Sonora	42,429.8	424.3	0.0000471	0.00471
Gogorrón	2	Natural Park	San Luis Potosí	38,010.0	380.1	0.0000526	0.00526
Laguna Ojo de Liebre	2	Ramsar	Baja California Sur	36,600.0	366.0	0.0000546	0.00546
Mazocahui	2	UMA	Sonora	30,603.0	306.0	0.0000654	0.00654
Santuario del agua y forestal Subcuenca Tributaria Río Mayorazgo-Temoaya	2	State Park Sanctuary of Water and Forest	México	25,220.3	252.2	0.0000793	0.00793
Ejido Real del Castillo	2	UMA	Baja California	20,000.0	200.0	0.0001000	0.01000
Laguna San Ignacio	2	Ramsar	Baja California Sur	17,500.0	175.0	0.0001143	0.01143
Lagunas de Chacahua	2	Ramsar	Oaxaca	17,424.0	174.2	0.0001148	0.01148
Laguna de Sayula	2	Ramsar	Jalisco	16,800.0	168.0	0.0001190	0.01190
Rancho Grande	2	UMA	Sonora	16,600.0	166.0	0.0001205	0.01205
Ganadera Hermanos Navarro, S. A. de C. V.	2	UMA	Sonora	16,320.0	163.2	0.0001225	0.01225
Lagunas de Chacahua	2	Natural Park	Oaxaca	14,896.1	149.0	0.0001343	0.01343
Peña Alta	2	Sustainable Use Area	Guanajuato	13,270.2	132.7	0.0001507	0.01507
Sierra Cerro de la Silla	2	Zone Subject to Ecological Conservation	Nuevo León	10,620.4	106.2	0.0001883	0.01883
Isla del Bosque - Palmito del Verde	2	UMA	Sinaloa	9,386.0	93.9	0.0002131	0.02131
Sistema Estuarino Boca del Cielo	2	Ramsar	Chiapas	8,931.0	89.3	0.0002239	0.02239
El Mirador	2	UMA	Coahuila	8,778.0	87.8	0.0002278	0.02278
Las Codornices	2	UMA	Campeche	7,645.0	76.5	0.0002616	0.02616
Rancho Piedra Azul	2	UMA	Coahuila	7,256.0	72.6	0.0002756	0.02756
Rancho El Rincon	2	UMA	Coahuila	7,132.0	71.3	0.0002804	0.02804
La Esmeralda	2	UMA	Coahuila	6,914.0	69.1	0.0002893	0.02893
La Escondida y El Coyotito	2	UMA	Coahuila	6,622.0	66.2	0.0003020	0.03020
Casitas	2	UMA	Sonora	6,603.0	66.0	0.0003029	0.03029
Punta de Cirios	2	UMA	Sonora	6,425.0	64.3	0.0003113	0.03113
Cerro del Muerto	2	Natural Monument	Aguascalientes	5,862.0	58.6	0.0003412	0.03412
Parque Estatal Lagunas de Yalahau	2	State Park	Yucatán	5,683.3	56.8	0.0003519	0.03519
Parque Estatal Lagunas de Yalahau	2	Ramsar	Yucatán	5,683.3	56.8	0.0003519	0.03519
Otoch Ma'ax Yetel Kooh	2	Flora and Fauna Protection Area	Quintana Roo	5,367.4	53.7	0.0003726	0.03726
Otoch Ma'ax Yetel Kooh	2	Ramsar	Quintana Roo	5,367.4	53.7	0.0003726	0.03726
Constitución de 1857	2	Natural Park	Baja California	5,009.5	50.1	0.0003992	0.03992
La Montosa	2	UMA	Sonora	4,895.0	49.0	0.0004086	0.04086
Los Coconos	2	UMA	Durango	4,757.0	47.6	0.0004204	0.04204
San Nicolas de Kino	2	UMA	Sonora	4,706.0	47.1	0.0004250	0.04250
Manglares de Nichupté	2	Flora and Fauna Protection Area	Quintana Roo	4,257.5	42.6	0.0004698	0.04698
Manglares de Nichupté	2	Ramsar	Quintana Roo	4,257.0	42.6	0.0004698	0.04698
Rancho El Caracol	2	UMA	Tamaulipas	4,117.0	41.2	0.0004858	0.04858
Vado Hondo y Gruta Cosalá	2	Ecological Conservation Zone of the Population Centres	Sinaloa	3,842.5	38.4	0.0005205	0.05205
Reserva Cinegética Tres Marías, S. A de C. V.	2	UMA	Sonora	3,776.0	37.8	0.0005297	0.05297
Sierra Las Mitras	2	Zone Subject to Ecological Conservation	Nuevo León	3,744.2	37.4	0.0005342	0.05342
Las Cabras	2	UMA	Sinaloa	3,500.0	35.0	0.0005714	0.05714

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Benito Juárez	2	Natural Park	Oaxaca	2,591.5	25.9	0.0007717	0.07717
Estanque de Los Walle	2	UMA	Tamaulipas	2,532.0	25.3	0.0007899	0.07899
Refugio Faunistico Jalotum	2	UMA	Campeche	2,500.0	25.0	0.0008000	0.08000
Agua Blanca	2	UMA	Sonora	2,400.0	24.0	0.0008333	0.08333
Estero de Punta Banda	2	Ramsar	Baja California	2,393.3	23.9	0.0008357	0.08357
Comunidad Indígena de Aranza	2	UMA	Michoacán	2,196.0	22.0	0.0009107	0.09107
Ejido La Rinconada	2	UMA	Aguascalientes	2,072.0	20.7	0.0009653	0.09653
El Antrialgo	2	UMA	Aguascalientes	2,023.0	20.2	0.0009886	0.09886
Rancho Nuevo	2	Zone Subject to Ecological Conservation	Chiapas	1,693.4	16.9	0.0011810	0.11810
Rancho Peña Azul y El Colorín	2	UMA	Aguascalientes	1,600.0	16.0	0.0012500	0.12500
Los Tucanes de Los Tuxtlas	2	UMA	Veracruz	1,288.0	12.9	0.0015528	0.15528
Yagul	2	Natural Monument	Oaxaca	1,076.1	10.8	0.0018586	0.18586
El Cedral	2	Ecological Conservation Zone of the Population Centres	Zacatecas	1,000.0	10.0	0.0020000	0.20000
Teipan	2	UMA	Oaxaca	1,000.0	10.0	0.0020000	0.20000
Estero de San José del Cabo	2	State Ecological Reserve	Baja California Sur	766.7	7.7	0.0026086	0.26086
Perla de San Martin	2	UMA	Veracruz	671.0	6.7	0.0029806	0.29806
Parque Ecológico de la Ciudad de México	2	Zone Subject to Ecological Conservation	Distrito Federal	636.9	6.4	0.0031403	0.31403
Zona marina Bahía de los Ángeles, canales de Ballenas y de Salsipuedes	2	Biosphere Reserve	Baja California	483.2	4.8	0.0041391	0.41391
Tercera Sección del Bosque de Chapultepec	2	Urban Forest	Distrito Federal	243.9	2.4	0.0082001	0.82001
Estero El Salado	2	Zone Subject to Ecological Conservation	Jalisco	169.0	1.7	0.0118368	1.18368
Los Sabinos - Santa Rosa - San Cristóbal	2	Zone Subject to Ecological Conservation	Morelos	152.3	1.5	0.0131309	1.31309
La Alberca de los Espinos	2	Zone Subject to Ecological Conservation	Michoacán	142.1	1.4	0.0140723	1.40723
Cerro Punhuato	2	State Park	Michoacán	118.9	1.2	0.0168265	1.68265
Playa Maruata	2	Ramsar	Michoacán	80.4	0.8	0.0248694	2.48694
Río Pancho Poza	2	Ecological Reserve	Veracruz	57.0	0.6	0.0350933	3.50933
Parque Estatal Bosque El Hiloche	2	State Park	Hidalgo	54.6	0.5	0.0366257	3.66257
Molino de Flores Netzahualcóyotl	2	Natural Park	Estado de México	45.7	0.5	0.0438000	4.38000
Agua Bendita	2	UMA	Hidalgo	44.0	0.4	0.0454545	4.54545
Laguna Bélgica	2	Zone Subject to Ecological Conservation	Chiapas	42.0	0.4	0.0476190	4.76190
La Armella	2	Ecological Conservation Zone	Distrito Federal	37.0	0.4	0.0541272	5.41272
La Alberca de los Espinos	2	Ramsar	Michoacán	33.0	0.3	0.0605510	6.05510
Sistema Arrecifal Veracruzano	2	Marine National Park	Veracruz	12.2	0.1	0.1633879	16.33879
Sistema Arrecifal Lobos-Tuxpan	2	Flora and Fauna Protection Area	Veracruz	0	0	NA	NA
Arivechi - Cerro Las Conchas	2	NA	Sonora	0	0	NA	NA
Cuenca de la Esperanza	2	Conservation Reserve	Guanajuato	0	0	NA	NA
Ocampo	1	Flora and Fauna Protection Area	Coahuila, Chihuahua	344,238.2	3,442.4	0.0000029	0.00029
Parque Nacional Arrecife Alacranes	1	Ramsar	Yucatán	334,113.3	3,341.1	0.0000030	0.00030
Ejido El Toboyori Segundo	1	UMA	Sonora	130,711.0	1,307.1	0.0000077	0.00077
Sistema de Humedales Remanentes del Delta del R+¡o Colorado	1	Ramsar	Baja California, Sonora	127,614.0	1,276.1	0.0000078	0.00078
Sistema Lagunar San Ignacio - Navachiste - Macapule	1	Ramsar	Sinaloa	79,872.9	798.7	0.0000125	0.00125

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
N.C.P.E. Ley Federal de Aguas No. 1	1	UMA	Baja California Sur	62,254.0	622.5	0.0000161	0.00161
Laguna Huizache-Caimanero	1	Ramsar	Sinaloa	48,282.7	482.8	0.0000207	0.00207
Ik Balam	1	UMA	Campeche	39,625.0	396.3	0.0000252	0.00252
Pool Hayuin	1	UMA	Campeche	38,918.0	389.2	0.0000257	0.00257
Cebadilla de Dolores	1	UMA	Chihuahua	38,442.0	384.4	0.0000260	0.00260
La Candelaria	1	UMA	Sonora	38,317.0	383.2	0.0000261	0.00261
Ejido Colonia Altamirano	1	UMA	Chihuahua	35,252.0	352.5	0.0000284	0.00284
Manglares y Humedales del Norte de Isla Cozumel	1	Ramsar	Quintana Roo	32,786.0	327.9	0.0000305	0.00305
La Gruta	1	UMA	Campeche	30,000.0	300.0	0.0000333	0.00333
Laguna Mocu	1	UMA	Campeche	30,000.0	300.0	0.0000333	0.00333
Canal del Infiernillo y esteros del territorio Comcaac (Xepe Coosot)	1	Ramsar	Sonora	29,700.0	297.0	0.0000337	0.00337
Caribe Mexicano	1	Biosphere Reserve	Quintana Roo	28,589.5	285.9	0.0000350	0.00350
Laguna de Babícora	1	Ramsar	Chihuahua	26,045.1	260.5	0.0000384	0.00384
El Cajoncito	1	UMA	Sonora	24,549.0	245.5	0.0000407	0.00407
Sierra El Fraile y San Miguel	1	Zone Subject to Ecological Conservation	Nuevo León	23,506.4	235.1	0.0000425	0.00425
Comunidad Indígena de Chacala	1	UMA	Jalisco	23,303.0	233.0	0.0000429	0.00429
Colonia Parras de la Fuente	1	Protected Ecological Area	Tamaulipas	21,948.7	219.5	0.0000456	0.00456
Bahía de Loreto	1	Marine National Park	Baja California Sur	21,692.1	216.9	0.0000461	0.00461
Río Presidio Club de Caza	1	UMA	Sinaloa	21,591.0	215.9	0.0000463	0.00463
Villa de Bilbao	1	Area of Preservation of Ecosystems and its Biodiversity of Voluntary Iniciative	Coahuila	21,000.9	210.0	0.0000476	0.00476
Choacahui	1	UMA	Sinaloa	19,950.0	199.5	0.0000501	0.00501
Constitución	1	UMA	Campeche	19,781.0	197.8	0.0000506	0.00506
Bachomobampo	1	UMA	Sinaloa	19,054.0	190.5	0.0000525	0.00525
Lacanja	1	UMA	Chiapas	19,053.0	190.5	0.0000525	0.00525
Reserva Ecológica y Cinegética de Itzamna	1	UMA	Campeche	18,700.0	187.0	0.0000535	0.00535
Parque Nacional Arrecifes de Xcalak	1	Ramsar	Quintana Roo	17,949.0	179.5	0.0000557	0.00557
Cuenca Alta del Río Temascatío	1	Sustainable Use Area	Guanajuato	17,432.0	174.3	0.0000574	0.00574
Los Compadres	1	UMA	Zacatecas	17,027.0	170.3	0.0000587	0.00587
Cañón de Fernández	1	State Park	Durango	17,001.5	170.0	0.0000588	0.00588
Parque Estatal "Cañón de Fernández"	1	Ramsar	Durango	17,001.5	170.0	0.0000588	0.00588
Rancho El Cubabi	1	UMA	Sonora	16,261.0	162.6	0.0000615	0.00615
El Carrizo	1	UMA	Sonora	15,479.0	154.8	0.0000646	0.00646
San Diego de Alcala	1	UMA	Durango	15,028.0	150.3	0.0000665	0.00665
Ejido El Progreso	1	UMA	Coahuila	15,000.0	150.0	0.0000667	0.00667
Rancho Lobos	1	UMA	Sonora	14,461.0	144.6	0.0000692	0.00692
El Ángel	1	UMA	Coahuila	14,300.0	143.0	0.0000699	0.00699
Represito de Lujan	1	UMA	Sonora	13,973.0	139.7	0.0000716	0.00716
Uma Col 01	1	UMA	Colima	13,691.0	136.9	0.0000730	0.00730
Choclo Duro	1	UMA	Sonora	13,662.0	136.6	0.0000732	0.00732
Santuario del agua y forestal Subcuenca Tributaria Río San Lorenzo	1	State Park Sanctuary of Water and Forest	México	12,657.9	126.6	0.0000790	0.00790
Los Ona Jeco	1	UMA	Sonora	12,569.0	125.7	0.0000796	0.00796

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Parque Nacional Arrecife de Cozumel	1	Ramsar	Quintana Roo	11,987.0	119.9	0.0000834	0.00834
El Salto	1	UMA	Sonora	11,879.0	118.8	0.0000842	0.00842
Selva	1	UMA	Sonora	11,677.0	116.8	0.0000856	0.00856
Santuario del agua y forestal subcuenca tributaria Presa Antonio Alzate	1	State Park Sanctuary of Water and Forest	México	11,529.8	115.3	0.0000867	0.00867
Ejido Guasave/Distrito de riego No. 063	1	UMA	Sinaloa	11,490.0	114.9	0.0000870	0.00870
San Francisco	1	UMA	Coahuila	10,731.0	107.3	0.0000932	0.00932
San Antonio	1	UMA	Sonora	10,727.0	107.3	0.0000932	0.00932
Ejido Tres Reyes	1	UMA	Quintana Roo	10,550.0	105.5	0.0000948	0.00948
Rancho Charreteras	1	UMA	Coahuila	10,470.0	104.7	0.0000955	0.00955
Los Pumas	1	UMA	Campeche	10,339.0	103.4	0.0000967	0.00967
El Real del Zopilote	1	UMA	Nayarit	9,512.0	95.1	0.0001051	0.01051
Sinalopato	1	UMA	Sinaloa	9,354.0	93.5	0.0001069	0.01069
Cerro Mohinora	1	Flora and Fauna Protection Area	Chihuahua	9,126.4	91.3	0.0001096	0.01096
Ejido San Rafael de Los Taraís	1	UMA	Coahuila	8,900.0	89.0	0.0001124	0.01124
Las Perdices	1	UMA	Sonora	8,829.0	88.3	0.0001133	0.01133
San Antonio De La Sierrecilla	1	UMA	Zacatecas	8,201.0	82.0	0.0001219	0.01219
Las Mesas	1	UMA	Sonora	8,005.0	80.1	0.0001249	0.01249
Gabino-Moroncarit-Yavaros	1	UMA	Sonora	7,373.0	73.7	0.0001356	0.01356
Porvenir del Campesino	1	UMA	Chihuahua	7,300.0	73.0	0.0001370	0.01370
Rancho La Cabeza y La Parreña	1	UMA	Coahuila	7,200.0	72.0	0.0001389	0.01389
Cerro de Los Amoles	1	Sustainable Use Area	Guanajuato	6,987.6	69.9	0.0001431	0.01431
General Máximo García	1	UMA	Durango	6,624.0	66.2	0.0001510	0.01510
Playa Tortuguera El Verde Camacho	1	Ramsar	Sinaloa	6,454.3	64.5	0.0001549	0.01549
Bracitos	1	UMA	Coahuila	6,450.0	64.5	0.0001550	0.01550
Chapa de Mota	1	State Park	México	6,215.0	62.2	0.0001609	0.01609
Empalme Purísima	1	UMA	Durango	5,976.0	59.8	0.0001673	0.01673
La Pintada	1	UMA	Sonora	5,969.0	59.7	0.0001675	0.01675
La porción norte y la franja costera oriental, terrestres y marinas de la Isla de Cozumel	1	Flora and Fauna Protection Area	Quintana Roo	5,733.2	57.3	0.0001744	0.01744
Rancho Santo Toribio	1	UMA	Coahuila	5,648.0	56.5	0.0001771	0.01771
Rancho Bismark	1	UMA	Chihuahua	5,177.0	51.8	0.0001932	0.01932
Las Acendraditas	1	UMA	Sonora	4,882.0	48.8	0.0002048	0.02048
Santa Margarita	1	UMA	Sonora	4,833.0	48.3	0.0002069	0.02069
San Martín	1	UMA	Sonora	4,724.0	47.2	0.0002117	0.02117
La Rosalia del Norte	1	UMA	Sonora	4,538.0	45.4	0.0002204	0.02204
Arrecifes de Xcalak	1	Natural Park	Quintana Roo	4,521.8	45.2	0.0002211	0.02211
La Campana	1	UMA	Durango	4,470.0	44.7	0.0002237	0.02237
Los Nogales	1	UMA	Chihuahua	4,044.0	40.4	0.0002473	0.02473
Boquerón de Tonalá	1	Flora and Fauna Protection Area	Oaxaca	3,912.3	39.1	0.0002556	0.02556
RioPresidio 3	1	UMA	Sinaloa	3,828.0	38.3	0.0002612	0.02612
Lic. Isidro Fabela	1	State Park	México	3,701.0	37.0	0.0002702	0.02702
Parque Estatal Santuario del agua Presa Corral de Piedra	1	State Park Sanctuary of Water	México	3,622.7	36.2	0.0002760	0.02760

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Cerro del Cubilete	1	Ecological Restoration Area	Guanajuato	3,611.8	36.1	0.0002769	0.02769
La Cieneguita	1	UMA	Sonora	3,576.0	35.8	0.0002796	0.02796
Volcán El Jorullo	1	Patrimonial Reserve	Michoacán	3,569.5	35.7	0.0002802	0.02802
El Saus	1	UMA	Coahuila	3,440.0	34.4	0.0002907	0.02907
Agua Nueva	1	UMA	Sonora	3,387.0	33.9	0.0002952	0.02952
Metzabok	1	Flora and Fauna Protection Area	Chiapas	3,368.4	33.7	0.0002969	0.02969
Las Comas	1	UMA	Tamaulipas	3,306.0	33.1	0.0003025	0.03025
Rancho La Capichola	1	UMA	Coahuila	3,273.0	32.7	0.0003055	0.03055
Lagunas Costeras y Serranías Aledañas de la Costa Norte de Michoacán	1	Patrimonial Reserve	Michoacán	3,233.9	32.3	0.0003092	0.03092
Sierra Patlachique	1	State Park	México	3,123.0	31.2	0.0003202	0.03202
Hacienda de Pedernales	1	UMA	San Luis Potosí	3,104.0	31.0	0.0003222	0.03222
Cerro Gordo	1	State Park	México	3,027.0	30.3	0.0003304	0.03304
Bahía de San Quintín	1	UMA	Baja California	3,000.0	30.0	0.0003333	0.03333
Laguna de Atotonilco	1	Ramsar	Jalisco	2,850.0	28.5	0.0003509	0.03509
San Angel	1	UMA	Nuevo León	2,796.0	28.0	0.0003577	0.03577
Marquezotes De Guadalupe	1	UMA	Durango	2,710.0	27.1	0.0003690	0.03690
Cascada de Agua Azul	1	Forest Protection Zone and Refuge of Wild Fauna	Chiapas	2,580.0	25.8	0.0003876	0.03876
Los Guajolotes	1	UMA	Zacatecas	2,452.0	24.5	0.0004078	0.04078
Rancho Rodeo	1	UMA	Tamaulipas	2,318.0	23.2	0.0004314	0.04314
Gral. Domingo Arrieta	1	UMA	Durango	2,315.0	23.2	0.0004320	0.04320
Ejido Estación Camarón	1	UMA	Nuevo León	2,273.0	22.7	0.0004399	0.04399
Ejido Jimenez	1	UMA	Coahuila	2,208.0	22.1	0.0004529	0.04529
La Tigra	1	UMA	Morelos	2,155.0	21.6	0.0004640	0.04640
Rancho Las Tórtolas	1	UMA	Coahuila	2,055.0	20.6	0.0004866	0.04866
Parque Estatal Agua Blanca	1	State Park	Tabasco	2,025.0	20.3	0.0004938	0.04938
Ejido Valle de San Jose	1	UMA	Tamaulipas	1,856.0	18.6	0.0005388	0.05388
Santa Carmen Sur	1	UMA	Coahuila	1,834.0	18.3	0.0005453	0.05453
Tigre Grande	1	UMA	Campeche	1,831.0	18.3	0.0005461	0.05461
Cinegético Huixastla	1	UMA	Morelos	1,723.0	17.2	0.0005804	0.05804
U'kajalchi'ik	1	UMA	Campeche	1,719.0	17.2	0.0005817	0.05817
Zona de Restauración Zapalinamé	1	Restoration Zone	Coahuila	1,707.8	17.1	0.0005856	0.05856
Linda Vista	1	UMA	Tamaulipas	1,653.0	16.5	0.0006050	0.06050
El Siete	1	UMA	Coahuila	1,636.0	16.4	0.0006112	0.06112
Presa Chica	1	UMA	Tamaulipas	1,625.0	16.3	0.0006154	0.06154
El Tepeyac	1	Natural Park	Ciudad de México, Estado de México	1,500.0	15.0	0.0006667	0.06667
Laguna de Zapotlán	1	Ramsar	Jalisco	1,496.0	15.0	0.0006684	0.06684
Lago-Cráter La Joya	1	Ecological Park	Guanajuato	1,479.0	14.8	0.0006761	0.06761
Ciénaga de Tamasopo	1	Ramsar	San Luis Potosí	1,364.2	13.6	0.0007330	0.07330
Arrecifes de Sian Ka'an	1	Biosphere Reserve	Quintana Roo	1,361.0	13.6	0.0007348	0.07348
Parque Nacional Islas Marietas	1	Ramsar	Nayarit	1,357.3	13.6	0.0007368	0.07368
La Becerra	1	UMA	Jalisco	1,345.0	13.5	0.0007435	0.07435

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Mineral de Nuestra Señora de la Candelaria	1	Zone Subject to Ecological Conservation	Sinaloa	1,256.0	12.6	0.0007962	0.07962
Sierra Morelos	1	State Park	México	1,255.1	12.6	0.0007968	0.07968
San Juan Bautista Tabi y Anexa Sacnicte	1	Natual Protected Area of Scenic Value	Yucatán	1,164.1	11.6	0.0008590	0.08590
Laguna Colombia	1	State Ecological Park	Quintana Roo	1,130.6	11.3	0.0008845	0.08845
Cerro El Topo	1	Zone Subject to Ecological Conservation	Nuevo León	1,093.3	10.9	0.0009147	0.09147
La Vega Escondida	1	Special Zone Subject to Ecological Conservation	Tamaulipas	1,044.0	10.4	0.0009579	0.09579
Parque Estatal de Kabah	1	State Park	Yucatán	949.8	9.5	0.0010529	0.10529
El Jalocote	1	UMA	Jalisco	926.0	9.3	0.0010799	0.10799
El Rialito	1	UMA	Nuevo León	863.0	8.6	0.0011587	0.11587
Los Tecomates	1	UMA	Nuevo León	854.0	8.5	0.0011710	0.11710
Desarrollo Cinegético Halcon	1	UMA	Durango	783.0	7.8	0.0012771	0.12771
Cerro del Palacio	1	UMA	Jalisco	771.0	7.7	0.0012970	0.12970
Humedales del Lago de Pátzcuaro	1	Ramsar	Michoacán	707.0	7.1	0.0014144	0.14144
Parque Ecológico Agua Tibia-Jeroche	1	Zone Subject to Ecological Conservation	Michoacán	687.1	6.9	0.0014553	0.14553
Parque Lineal	1	Urban Park	Nuevo León	677.4	6.8	0.0014763	0.14763
Tulum	1	Natural Park	Quintana Roo	664.3	6.6	0.0015053	0.15053
Las Estacas	1	State Reserve	Morelos	652.2	6.5	0.0015333	0.15333
El Guajillo	1	UMA	Tamaulipas	618.0	6.2	0.0016181	0.16181
San Juan del Monte	1	Green Area Reserved for Ecological Recreation and Education	Veracruz	609.6	6.1	0.0016404	0.16404
Ejido Cajon del Sabino	1	UMA	Sonora	600.0	6.0	0.0016667	0.16667
El Jiloaste	1	UMA	Jalisco	550.0	5.5	0.0018182	0.18182
Rancho San Juanito	1	UMA	Tamaulipas	532.0	5.3	0.0018797	0.18797
General Juan Álvarez	1	Natural Park	Guerrero	528.0	5.3	0.0018939	0.18939
El Ebanito	1	UMA	Nuevo León	470.0	4.7	0.0021277	0.21277
Gruta del Cerro Coconá	1	Natural Monument	Tabasco	442.0	4.4	0.0022624	0.22624
Los Remedios	1	Natural Park	Estado de México	400.2	4.0	0.0024990	0.24990
Rancho El Gato	1	UMA	Coahuila	359.0	3.6	0.0027855	0.27855
Ejido Rancho Viejo	1	UMA	Morelos	352.0	3.5	0.0028409	0.28409
Cerro del Estribo Grande	1	Zone Subject to Ecological Conservation	Michoacán	273.2	2.7	0.0036601	0.36601
Laguna de las Ilusiones	1	Ecological Reserve	Tabasco	258.3	2.6	0.0038719	0.38719
Bosque de Tlalpan	1	Ecological and Cultural Zone	Distrito Federal	252.9	2.5	0.0039548	0.39548
Arroyo Moreno	1	Ecological Reserve	Veracruz	249.7	2.5	0.0040051	0.40051
Tlatucapa	1	State Park	México	213.8	2.1	0.0046766	0.46766
Cabo San Lucas	1	Submarine Refuge Zone of Flora and Fauna and Ecological Condition of Depths	Baja California Sur	208.1	2.1	0.0048065	0.48065
Laguna Manatí	1	Zone Subject to Ecological Conservation, State Refuge of Flora and Fauna	Quintana Roo	203.0	2.0	0.0049264	0.49264
Las Huertas	1	Natural Resources Protection Area	Colima	167.0	1.7	0.0059877	0.59877
Cerro El Tecajete	1	State Park	Hidalgo	161.6	1.6	0.0061870	0.61870
Malpaís de Santo Tomás de los Plátanos	1	Zone Subject to Environmental Conservation	México	145.0	1.5	0.0068942	0.68942

Supplementary Table 3.7. Number of priority CWR taxa present in protected areas of Mexico (continued)

Protected Area	CWR Taxa	Category	States	Area (Has)	Area (Km2)	Taxa/ha	Taxa/Km2
Nuevo Parque Ecológico La Pastora	1	Urban Park	Nuevo León	143.7	1.4	0.0069589	0.69589
Humedales de Montaña María Eugenia	1	Zone Subject to Ecological Conservation	Chiapas	111.8	1.1	0.0089449	0.89449
Humedales de Montaña La Kisst	1	Zone Subject to Ecological Conservation	Chiapas	105.7	1.1	0.0094608	0.94608
Parque Ecológico del Centenario de la Batalla de Zacatecas	1	State Park	Zacatecas	100.0	1.0	0.0100000	1.00000
Tula	1	Natural Park	Hidalgo	99.5	1.0	0.0100502	1.00502
El Limón	1	State Park	Guerrero	86.8	0.9	0.0115154	1.15154
Humedales de Montaña María Eugenia	1	Ramsar	Chiapas	86.0	0.9	0.0116347	1.16347
Arrecifes de Cozumel	1	Marine National Park	Quintana Roo	82.3	0.8	0.0121538	1.21538
Los Chorros del Varal	1	Zone Subject to Ecological Conservation	Michoacán	72.8	0.7	0.0137415	1.37415
Islas Marietas	1	Natural Park	Nayarit	71.2	0.7	0.0140522	1.40522
Arrecife Alacranes	1	Marine National Park	Yucatán	53.0	0.5	0.0188673	1.88673
La Alberca	1	Zone Subject to Ecological Conservation	Michoacán	45.1	0.5	0.0221550	2.21550
Cerro el Aguacatillo	1	Ecological Conservation Zone of the Population Centres	Hidalgo	44.9	0.4	0.0222885	2.22885
Parque Kabah	1	Urban Park	Quintana Roo	41.5	0.4	0.0241027	2.41027
Humedales de Montaña La Kisst	1	Ramsar	Chiapas	35.7	0.4	0.0280348	2.80348
Megaparque	1	Ecological Park	Guanajuato	28.4	0.3	0.0351606	3.51606
La Lagunilla	1	Ecological Conservation Zone of the Population Centres	Hidalgo	28.4	0.3	0.0352372	3.52372
Laguna de Chankanaab	1	Natural Park	Quintana Roo	13.6	0.1	0.0732740	7.32740
Costa Occ. de I. Mujeres, Pta. Cancún y Pta. Nizuc	1	Marine National Park	Quintana Roo	0.6	0.0061	1.6470096	164.70096
Zona marina del Archipiélago de San Lorenzo	1	Natural Park	Baja California	0	0	NA	NA
La Concordia Zaragoza	1	Typical Natural Area	Chiapas	0	0	NA	NA
Sierra de Santa Catarina	1	Zone Subject to Ecological Conservation	Distrito Federal	0	0	NA	NA
Laguna Ik	1	NA	Campeche	0	0	NA	NA

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Agave aktites																		2																						
Agave angustifolia	3		2	2		1	3				1				3		1	2			1			1					1					4						
Agave angustifolia var. *deweyana*																										1														
Agave atrovirens																					1															1				
Agave congesta									1																															
Agave datylio																			1																					
Agave fourcroydes																																		1						
Agave hiemiflora																																								
Agave hurteri																											1													
Agave karwinskii																																								
Agave kewensis			9																																					
Agave macroacantha						1																																		
Agave macroculmis													1																											
Agave mapisaga													1																											
Agave rhodacantha																																	3							
Agave seemanniana	1								1																		2													
Agave sisalana			1																								1													
Agave stringens										1																														
Agave tequilana	2									1																											4			
Amaranthus australis															1																									
Amaranthus blitoides																				2																				
Amaranthus caudatus		1																																						
Amaranthus crassipes																												1												
Amaranthus cruentus						1																																		
Amaranthus dubius																													1											
Amaranthus fimbriatus							1					1							2											1										
Amaranthus greggii																				4																				
Amaranthus hybridus	1	1		3		5			6	2	1				16						3			1		3	1						1		2	1				
Amaranthus hypochondriacus	2										1																													
Amaranthus palmeri							2			2		1						1						2											1					
Amaranthus polygonoides																												1												
Amaranthus powellii						4			1																											1				
Amaranthus scariosus															5																							1	3	
Amaranthus spinosus	1	1		2										1	13									3	1		2								1				2	
Amaranthus tamaulipensis															1																									
Amaranthus torreyi							1												4																					

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Annona cherimola	1							3							2																				9	1				
Annona glabra				6																				1	1															
Annona globiflora			2					2							3										1		1													
Annona longiflora										3																														
Annona longipes				1																																				
Annona macroprophyllata																2																								
Annona muricata				1																																		1	1	
Annona palmeri																																							1	
Annona purpurea			3											1	1												1													
Annona reticulata			2											1																										
Annona liebmanniana																											1													
Annona squamosa			2																					1														1		
Bixa orellana				4							1													1															1	
Byrsonima crassifolia	1		2	5					1		1				3					1				1			2												2	
Capsicum annuum var. *glabriusculum*		1	3	2	1	1			1															7	1		1		1								1			
Capsicum frutescens	7		2	4					6						13					1							1							2		1				
Carica papaya				7	1										2												1													
Carya illinoinensis		1						1					1																											
Carya myristiciformis										1																														
Carya ovata								2																																
Carya palmeri								2																	1															
Crataegus mexicana	1	1				1			8																										1	1				
Crataegus tracyi var. *coahuilensis*																																								
Crataegus uniflora																																								
Cucurbita argyrosperma			1			2	1				2				4		1							3																
Cucurbita argyrosperma subsp. *sororia*							1				3				3									5														1		1
Cucurbita cordata												1																												
Cucurbita digitata																							2																	
Cucurbita foetidissima								1																																
Cucurbita lundelliana																																		1						
Cucurbita okeechobeensis subsp. *martinezii*																				1					2															
Cucurbita palmata												1																												
Cucurbita pedatifolia																					1																			

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)																																								
	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Cucurbita pepo subsp. *fraterna*																															1									
Cucurbita radicans											1																													
Diospyros conzattii								2																																
Diospyros johnstoniana		1																																						
Diospyros rosei																																						1		
Gossypium aridum			1																					10														2		
Gossypium barbadense			1																																					
Gossypium gossypioides	1																																							
Gossypium hirsutum	10		4		1	1									2			2	1	2	1			5	1									3		1		15	2	
Gossypium schwendimanii																																								
Gossypium thurberi																							2																	
Helianthus annuus																		3																						
Helianthus californicus																						1																		
Helianthus ciliaris																															1									
Helianthus gracilentus																																								
Helianthus hirsutus																																								
Helianthus laciniatus		1																																						
Helianthus niveus							2												1																					
Helianthus niveus subsp. *niveus*																																								
Helianthus niveus subsp. *tephrodes*																																								
Hylocereus ocamponis						1																																2		
Ipomoea batatas	1			3	1	1																																		
Ipomoea leucantha		1																																						
Ipomoea tabascana																																								
Ipomoea tiliacea	1		2	2					3						3						1															1				
Ipomoea trifida			2	2				3	2	2	1				3					3				13			4													
Ipomoea triloba	1		4						2															2																
Jacaratia dolichaula				36																																				
Jacaratia mexicana	2		1												5	2	1							34																
Jarilla caudata								1																																
Jarilla heterophylla		7				1																																		
Jatropha andrieuxii																	1																							
Jatropha bartlettii																																								
Jatropha mcvaughii																																	1							

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Jatropha pseudocurcas															1																									
Jatropha rufescens																1																								
Leucaena confertiflora																																				1				
Leucaena diversifolia	3		6												1																						1			
Leucaena esculenta	4		8				1									4	1									4									3		1			
Leucaena lanceolata		1	3												13									14									1							
Leucaena leucocephala	1		1	1		1	1			1					4	1		1	2	2				1					1					3				5		
Manihot aesculifolia	1		2							3					1	2																								
Manihot angustiloba					1		2			2								2																	1					
Manihot auriculata											2																													
Manihot caudata					1																																			
Manihot chlorosticta					1													1						38														4		
Manihot crassisepala																2																								
Manihot davisiae																		4																						
Manihot foetida																2																								
Manihot michaelis																																								
Manihot oaxacana	1				1																																			
Manihot obovata																																								
Manihot pauciflora	2				1																1																			
Manihot pringlei					1																																			
Manihot rhomboidea	2	1			1																																			
Manihot rhomboidea subsp. *microcarpa*			4							3																	2													
Manihot rubricaulis					1					2											1																			
Manihot rubricaulis subsp. *isoloba*					1																																			
Manihot rubricaulis subsp. *rubricaulis*					1																																			
Manihot subspicata					1																																			
Manihot tomatophylla					1																																			
Manihot walkerae																																								
Manilkara chicle				1																																				
Manilkara zapota	1		1				1								2		1			1					2		1											1	1	
Opuntia atropes		1																								1														
Opuntia crassa						2																																		
Opuntia deamii																																								
Opuntia eichlamii									1																															

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Opuntia ficus-indica						1																			1															
Opuntia hyptiacantha						2																																		
Opuntia lasiacantha						7															1																			
Opuntia spinulifera																									1															
Opuntia streptacantha		1				4							1								2																			
Opuntia undulata											1										1																			
Opuntia velutina																										1														
Opuntia wilcoxii																		1																						
Pachyrhizus erosus	1		1																					4																
Pachyrhizus ferrugineus																																								
Persea americana	4		1	3		2		1	12		4				5																1				1					
Persea schiedeana				8																																				
Phaseolus acutifolius	1		1		1		2			1	3												1						1											1
Phaseolus acutifolius var. *acutifolius*					1		1			3	1	1																												
Phaseolus acutifolius var. *tenuifolius*																							1																	1
Phaseolus albescens														1																										
Phaseolus angustissimus																																								
Phaseolus carteri																			3																					
Phaseolus coccineus	17	2	5		1	22		3	31		7		3	3			2				14										1			1	21	7				4
Phaseolus coccineus subsp. *coccineus*		1							4		1						1				2														2	1				
Phaseolus dumosus	1		1		1				9												1															1				
Phaseolus filiformis					1		10												7											1										
Phaseolus maculatus subsp. *ritensis*										1																														
Phaseolus parvifolius			2		1																																1			
Phaseolus vulgaris	17	4	7		1	5	4	2	22	8	6		1	5	19		3	1	2	2	7			2	2	2	2				1				28	16	3	1	3	2
Phaseolus vulgaris var. *aborigineus*						1																													3					
Physalis acutifolia							2					1																												
Physalis ampla																																								
Physalis angulata							1												2																					
Physalis crassifolia																			1																					
Physalis lagascae										6																														
Physalis microcarpa																																								

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Physalis philadelphica	1	2	1	2				1	5	1			1																						1					
Physalis sulphurea																					3																			
Pinus ayacahuite													3																											
Pinus cembroides													3								1							1							1					
Pinus maximartinezii																																			1					
Pinus monophylla																						1																		
Pinus quadrifolia																						2																		
Pithecellobium dulce	4	1	7		1			1							4		1		1	2				18	2	9	3		2						1	1		4	1	
Porophyllum gracile												1							1																					
Porophyllum linaria																					1																			
Porophyllum ruderale				3				1									1							2		1													1	
Porophyllum scoparium																																1								
Porophyllum warnockii																	2																							
Portulaca halimoides												1																												
Portulaca umbraticola												2																												
Pouteria belizensis																																								
Pouteria campechiana				7																				2														2		
Pouteria durlandii				2																					1															
Pouteria glomerata																									1															
Pouteria reticulata				3																																				
Pouteria rhynchocarpa				1																																				
Pouteria sapota				1																																				
Pouteria torta																																								
Psidium friedrichsthalianum																																								
Psidium guajava	2			1				4	1						2											1									2					
Psidium guineense			1																																					
Psidium oligospermum								1							1									4					3											
Psidium salutare																																						1		
Salvia axillaris													4																											
Salvia candicans																																				1				
Salvia carnea									1		1																													
Salvia cinnabarina									4		2																													
Salvia coccinea			3					5							1										5		1													
Salvia columbariae																														1										
Salvia elegans		1		1		2		1			2		6	1			2				1														1					
Salvia fluviatilis																																			1					
Salvia helianthemifolia										1			2																											

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Salvia hispanica	2	1						1	2												1																			
Salvia laevis		1				4															4																			
Salvia lasiantha	1		1																																					
Salvia lasiocephala		2									4																		1											
Salvia leucantha		1																																	1					
Salvia longispicata																											1													
Salvia longistyla		2																																						
Salvia mexicana		1				5					10		6				1				1														3					
Salvia microphylla	1	4				10		1	1				12								2																			
Salvia misella			2																1										1											
Salvia mocinoi																1																			1					
Salvia oaxacana	2																																							
Salvia occidentalis				2											1									2					4									1	1	
Salvia patens									1				4																											
Salvia polystachia	1					5							2								2																			
Salvia prunelloides	1					1							1																											
Salvia purpurea		4							1					4			1									2							1		9					1
Salvia recurva									1																															
Salvia regla	1												1																											
Salvia sanctae-luciae											5																													
Salvia setulosa																																1								
Salvia splendens									1																															
Salvia stricta																																								
Salvia thyrsiflora											15			1																										
Salvia tiliifolia		1				4		1	8		2		1								2			1											1					
Sechium chinantlense																																								1
Sechium compositum								1																																
Sechium edule subsp. *sylvestre*								3																																
Sechium hintonii														2																										
Simmondsia chinensis							2												1											1										
Solanum bulbocastanum	4	14			1	15			3					2			3			1	11														6	8				
Solanum cardiophyllum	3	4			1	7			1	2	1		1								3															1				
Solanum clarum																																								
Solanum demissum	1				1	15			1												9															3				
Solanum ehrenbergii	1									1			1																											
Solanum guerreroense														1																										

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Solanum hintonii					1																1																			
Solanum hjertingii					1																							1												
Solanum hougasii														4																						1				
Solanum iopetalum	2	3			1	1							3	4							2																			2
Solanum morelliforme									10				1								1															1				
Solanum oxycarpum	1	1							1																															
Solanum pinnatisectum		8								1																														
Solanum polyadenium		8			1																													1		2				
Solanum schenckii																				2																1				
Solanum stenophyllidium		1			1					6																														
Solanum stoloniferum	2	13			1	21	2				1		2							1	9														1	1				
Solanum tarnii																									1															
Solanum trifidum						1				2	1			3																										
Solanum verrucosum	1	4			1	6							11	3	1						8										1				1	3				
Spondias mombin				3											2									2																
Spondias purpurea	1		1	8																				3					1											
Stenocereus alamosensis							3																																	
Stenocereus beneckei																										5														
Stenocereus chrysocarpus																								2																
Stenocereus eichlamii			1																																					
Stenocereus eruca																														1										
Stenocereus fricii																								2																
Stenocereus griseus	1														1																									
Stenocereus gummosus																			2											2										
Stenocereus kerberi											1																													
Stenocereus martinezii																																								
Stenocereus montanus																													1											
Stenocereus pruinosus	1														4																									
Stenocereus queretaroensis								1																																
Stenocereus quevedonis																																							1	
Stenocereus standleyi																								1																
Stenocereus stellatus	3																																							
Stenocereus thurberi							2																						2	1										
Stenocereus treleasei	1																																							
Tagetes erecta	1	2	2	1		7		5	8	4	2				3		3	1			1			1																1
Tagetes filifolia						1			3		3								1																2					
Tagetes foetidissima						1			2																															

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																																							
CWR taxon	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Tagetes hartwegii																																								
Tagetes lucida	2	3				3		1	3	1											2					1									1					
Tagetes micrantha		1				2							1								1																			
Tagetes pringlei		4																																						
Tagetes stenophylla																	1																							
Tagetes subulata		4									1					1	2									1														
Theobroma cacao	1				1			2																	1															
Tripsacum andersonii																																								
Tripsacum bravum																	1																							
Tripsacum dactyloides var. *dactyloides*			1																																					
Tripsacum dactyloides var. *hispidum*			4					1									6			2																				
Tripsacum dactyloides var. *mexicanum*								2																																
Tripsacum intermedium			1																																					
Tripsacum jalapense			2						1																															
Tripsacum lanceolatum					1						1																		1											
Tripsacum latifolium	2																																							
Tripsacum laxum	1																																							
Tripsacum maizar																																								1
Tripsacum manisuroides			2																																					
Tripsacum pilosum										1				1																							2			
Tripsacum pilosum var. *guatemalense*																																					1			
Tripsacum zopilotense																	1																					1		
Vanilla planifolia									2																															
Vanilla pompona															1																									
Zea diploperennis																																					1			
Zea luxurians																																								
Zea mays subsp. *mexicana*	1	1				3								1							1														2					
Zea mays subsp. *parviglumis*	1															8	1																		4					
Zea perennis														11																										

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Agave aktites																												2	1	6
Agave angustifolia					4								1															30	15	57
Agave angustifolia var. *deweyana*																												1	1	1
Agave atrovirens																												2	2	1
Agave congesta																												1	1	0
Agave datylio																												1	1	6
Agave fourcroydes																												1	1	1
Agave hiemiflora																								1				1	1	2
Agave hurteri																												1	1	0
Agave karwinskii																1												1	1	2
Agave kewensis																												9	1	2
Agave macroacantha																												1	1	1
Agave macroculmis																												1	1	8
Agave mapisaga																												1	1	0
Agave rhodacantha																												3	1	3
Agave seemanniana																								1				5	4	1
Agave sisalana																												2	2	5
Agave stringens																												1	1	1
Agave tequilana																												7	3	0
Amaranthus australis																												1	1	4
Amaranthus blitoides																												2	1	1
Amaranthus caudatus																												1	1	1
Amaranthus crassipes																												1	1	3
Amaranthus cruentus															2													3	2	1
Amaranthus dubius																												1	1	15
Amaranthus fimbriatus					1																							6	5	18
Amaranthus greggii																												4	1	24
Amaranthus hybridus															7	12								1			1	68	19	51
Amaranthus hypochondriacus															6													9	3	4
Amaranthus palmeri		1		1									1		1													13	10	37
Amaranthus polygonoides																												1	1	17
Amaranthus powellii				1																								7	4	13
Amaranthus scariosus																												9	3	4
Amaranthus spinosus													1		1	3					2						2	36	15	43
Amaranthus tamaulipensis																												1	1	0
Amaranthus torreyi					1																							6	3	17

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Annona cherimola															3	23								1				43	8	24
Annona glabra																												8	3	27
Annona globiflora																1												10	6	13
Annona longiflora										1																		4	2	11
Annona longipes																												1	1	1
Annona macroprophyllata																												2	1	6
Annona muricata													1										1					5	5	13
Annona palmeri																												1	1	1
Annona purpurea													4			1												11	6	10
Annona reticulata													3						1	1			1					9	6	39
Annona liebmanniana																											2	3	2	4
Annona squamosa																										1		5	4	14
Bixa orellana													3										1	1			1	13	8	24
Byrsonima crassifolia										2			2									1		1			1	26	15	33
Capsicum annuum var. *glabriusculum*																							1					21	12	31
Capsicum frutescens																1					2	1						41	12	30
Carica papaya																1						1		2			2	17	8	39
Carya illinoinensis						1	1									1												6	6	15
Carya myristiciformis																												1	1	4
Carya ovata																												2	1	8
Carya palmeri																												3	2	5
Crataegus mexicana															1	10												24	8	18
Crataegus tracyi var. *coahuilensis*												1																1	1	2
Crataegus uniflora							1																					1	1	1
Cucurbita argyrosperma																3												17	8	20
Cucurbita argyrosperma subsp. *sororia*	1												2			1												18	9	33
Cucurbita cordata																												1	1	19
Cucurbita digitata																		1										3	2	14
Cucurbita foetidissima																												1	1	26
Cucurbita lundelliana																												1	1	12
Cucurbita okeechobeensis subsp. *martinezii*																9												12	3	11
Cucurbita palmata																		1										2	2	13
Cucurbita pedatifolia																												1	1	7

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Cucurbita pepo subsp. *fraterna*																	1											2	2	3
Cucurbita radicans																												1	1	9
Diospyros conzattii																												2	1	5
Diospyros johnstoniana																												1	1	0
Diospyros rosei																												1	1	0
Gossypium aridum																1												14	4	8
Gossypium barbadense								1								1												3	3	12
Gossypium gossypioides																												1	1	1
Gossypium hirsutum								1								1							1				1	55	19	52
Gossypium schwendimanii																	1											1	1	2
Gossypium thurberi																												2	1	3
Helianthus annuus																1												4	2	14
Helianthus californicus																												1	1	2
Helianthus ciliaris																												1	1	3
Helianthus gracilentus																		1										1	1	1
Helianthus hirsutus						1																						1	1	1
Helianthus laciniatus																												1	1	8
Helianthus niveus					2																							5	3	17
Helianthus niveus subsp. *niveus*					1																							1	1	2
Helianthus niveus subsp. *tephrodes*			1																									1	1	1
Hylocereus ocamponis																												3	2	8
Ipomoea batatas																								1				7	5	20
Ipomoea leucantha																												1	1	1
Ipomoea tabascana																							1					1	1	0
Ipomoea tiliacea	3															3					1							20	10	18
Ipomoea trifida																												35	10	27
Ipomoea triloba																2												11	5	32
Jacaratia dolichaula																					3			1			4	44	4	7
Jacaratia mexicana																												45	6	20
Jarilla caudata																												1	1	2
Jarilla heterophylla																												8	2	9
Jatropha andrieuxii																												1	1	0
Jatropha bartlettii													1															1	1	1
Jatropha mcvaughii								1																				2	2	1

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Jatropha pseudocurcas																												1	1	0
Jatropha rufescens																												1	1	2
Leucaena confertiflora																												1	1	1
Leucaena diversifolia																18												29	5	21
Leucaena esculenta																3				3	1							33	11	25
Leucaena lanceolata													1															33	6	18
Leucaena leucocephala		1														4							1				1	33	19	55
Manihot aesculifolia													1							1								11	7	18
Manihot angustiloba													1															9	6	17
Manihot auriculata																												2	1	1
Manihot caudata																												1	1	6
Manihot chlorosticta													1															45	5	16
Manihot crassisepala																												2	1	5
Manihot davisiae																												4	1	1
Manihot foetida																												2	1	4
Manihot michaelis											2																	2	1	1
Manihot oaxacana																												2	2	3
Manihot obovata																				1								1	1	0
Manihot pauciflora																												4	3	2
Manihot pringlei																												1	1	7
Manihot rhomboidea	1									1			1															7	6	8
Manihot rhomboidea subsp. *microcarpa*																												9	3	6
Manihot rubricaulis				1																								5	4	7
Manihot rubricaulis subsp. *isoloba*																												1	1	2
Manihot rubricaulis subsp. *rubricaulis*																												1	1	0
Manihot subspicata																												1	1	2
Manihot tomatophylla																												1	1	1
Manihot walkerae									1																			1	1	1
Manilkara chicle																			1									2	2	5
Manilkara zapota																1												13	11	48
Opuntia atropes																				3								5	3	9
Opuntia crassa																												2	1	0
Opuntia deamii															1													1	1	0
Opuntia eichlamii																												1	1	0

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Opuntia ficus-indica																												2	2	10
Opuntia hyptiacantha																												2	1	9
Opuntia lasiacantha																												8	2	11
Opuntia spinulifera																												1	1	1
Opuntia streptacantha																												8	4	12
Opuntia undulata																												2	2	6
Opuntia velutina																					2							3	2	4
Opuntia wilcoxii								1																				2	2	5
Pachyrhizus erosus																			1								2	9	5	20
Pachyrhizus ferrugineus																			1									1	1	4
Persea americana	1														6	11												52	13	35
Persea schiedeana																1												9	2	4
Phaseolus acutifolius			1								2																	15	11	28
Phaseolus acutifolius var. *acutifolius*					1						1				1													10	8	26
Phaseolus acutifolius var. *tenuifolius*																												2	2	15
Phaseolus albescens																												1	1	4
Phaseolus angustissimus		1																										1	1	1
Phaseolus carteri																												3	1	3
Phaseolus coccineus	3												1	1	8	12												169	22	86
Phaseolus coccineus subsp. *coccineus*										1				1	4	1					1					1		21	13	25
Phaseolus dumosus	2														3	5												24	9	6
Phaseolus filiformis			4																									23	5	47
Phaseolus maculatus subsp. *ritensis*																												1	1	12
Phaseolus parvifolius																1												5	4	14
Phaseolus vulgaris	1										1				10	2					1							193	34	93
Phaseolus vulgaris var. *aborigineus*																								1				5	3	6
Physalis acutifolia																												3	2	17
Physalis ampla				1																								1	1	2
Physalis angulata			1																									4	3	12
Physalis crassifolia		1																										2	2	14
Physalis lagascae																												6	1	11
Physalis microcarpa	1																											1	1	2

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)																														
	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Physalis philadelphica													2	1	1													19	12	33
Physalis sulphurea																												3	1	7
Pinus ayacahuite																												3	1	4
Pinus cembroides				2																								8	5	42
Pinus maximartinezii																												1	1	2
Pinus monophylla																												1	1	2
Pinus quadrifolia																												2	1	2
Pithecellobium dulce								1					5						2	1	3			1	1		4	81	26	115
Porophyllum gracile																												2	2	31
Porophyllum linaria																										1		2	2	10
Porophyllum ruderale	1							1					1		1													13	10	23
Porophyllum scoparium																												1	1	11
Porophyllum warnockii																												2	1	0
Portulaca halimoides																												1	1	6
Portulaca umbraticola																												2	1	5
Pouteria belizensis																											1	1	1	0
Pouteria campechiana																											2	13	4	27
Pouteria durlandii																					1						2	6	4	5
Pouteria glomerata																												1	1	1
Pouteria reticulata																											1	4	2	10
Pouteria rhynchocarpa																												1	1	1
Pouteria sapota																											1	2	2	6
Pouteria torta																						1						1	1	0
Psidium friedrichsthalianum																					1							1	1	0
Psidium guajava													2			6												21	9	33
Psidium guineense																												1	1	6
Psidium oligospermum						2																						11	5	26
Psidium salutare																												1	1	0
Salvia axillaris																												4	1	6
Salvia candicans																												1	1	2
Salvia carnea	2																											4	3	8
Salvia cinnabarina	1																											7	3	9
Salvia coccinea				2			1									2								3				23	9	33
Salvia columbariae																												1	1	8
Salvia elegans				6										8	2													34	13	45
Salvia fluviatilis																												1	1	2
Salvia helianthemifolia														1														4	3	3

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)

	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Salvia hispanica				1																								8	6	14
Salvia laevis																												9	3	12
Salvia lasiantha																												2	2	2
Salvia lasiocephala	1															2												10	5	9
Salvia leucantha																												2	2	3
Salvia longispicata	1												1															3	3	6
Salvia longistyla																												2	1	2
Salvia mexicana														1														28	8	21
Salvia microphylla				2		1								2	1													37	11	51
Salvia misella	1																											5	4	21
Salvia mocinoi	1																							1				4	4	19
Salvia oaxacana																												2	1	2
Salvia occidentalis	1			1				1																				14	9	20
Salvia patens																												5	2	10
Salvia polystachia																												10	4	7
Salvia prunelloides														1														4	4	10
Salvia purpurea	1													3		1												28	11	30
Salvia recurva	1																											2	2	0
Salvia regla																												2	2	12
Salvia sanctae-luciae																												5	1	1
Salvia setulosa																												1	1	2
Salvia splendens																												1	1	0
Salvia stricta														2														2	1	2
Salvia thyrsiflora																												16	2	9
Salvia tiliifolia	5			2												3												31	12	35
Sechium chinantlense																												1	1	0
Sechium compositum	5																											6	2	2
Sechium edule subsp. *sylvestre*																1					2							6	3	4
Sechium hintonii																												2	1	2
Simmondsia chinensis			2		1																							7	5	26
Solanum bulbocastanum																												68	11	30
Solanum cardiophyllum																												24	10	18
Solanum clarum	7																											7	1	0
Solanum demissum														7														37	7	52
Solanum ehrenbergii																												3	3	17
Solanum guerreroense																												1	1	0

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)																														
	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Solanum hintonii																												2	2	3
Solanum hjertingii																												2	2	14
Solanum hougasii																												5	2	7
Solanum iopetalum																												18	8	31
Solanum morelliforme																												13	4	11
Solanum oxycarpum																2												5	4	3
Solanum pinnatisectum																												9	2	8
Solanum polyadenium																												12	4	8
Solanum schenckii															2													5	3	3
Solanum stenophyllidium																												8	3	11
Solanum stoloniferum				2										1														57	13	74
Solanum tarnii																												1	1	2
Solanum trifidum																												7	4	6
Solanum verrucosum																												40	11	51
Spondias mombin																											1	8	4	31
Spondias purpurea	1														2						1						2	20	9	22
Stenocereus alamosensis					1																							4	2	7
Stenocereus beneckei																				1								6	2	5
Stenocereus chrysocarpus																												2	1	3
Stenocereus eichlamii																												1	1	4
Stenocereus eruca					1																							2	2	6
Stenocereus fricii																												2	1	1
Stenocereus griseus																												2	2	5
Stenocereus gummosus					1																							5	3	15
Stenocereus kerberi																												1	1	1
Stenocereus martinezii								2																				2	1	0
Stenocereus montanus																												1	1	3
Stenocereus pruinosus																1					1							7	4	3
Stenocereus queretaroensis																												1	1	7
Stenocereus quevedonis																												1	1	1
Stenocereus standleyi																												1	1	3
Stenocereus stellatus																					1							4	2	2
Stenocereus thurberi					2																							7	4	18
Stenocereus treleasei																												1	1	1
Tagetes erecta	3												1	1	2	6				1	2						1	59	23	51
Tagetes filifolia																2												12	6	17
Tagetes foetidissima	1													2														6	4	17

Supplementary Table 3.8. Number of reserve sites and number of protected areas per priority CWR taxa of Mexico (continued)																														
	Priority site/number of observations																													
CWR taxon	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**Total observations**	**Number of reserve sites**	**Number of Protected Areas**
Tagetes hartwegii										1																		1	1	1
Tagetes lucida				1		1								1														20	12	37
Tagetes micrantha				1																								6	5	26
Tagetes pringlei																												4	1	8
Tagetes stenophylla																												1	1	6
Tagetes subulata	2							1					1													1		14	9	22
Theobroma cacao																											3	8	5	5
Tripsacum andersonii																									1			1	1	0
Tripsacum bravum																				1								2	2	1
Tripsacum dactyloides var. *dactyloides*																												1	1	2
Tripsacum dactyloides var. *hispidum*																												13	4	16
Tripsacum dactyloides var. *mexicanum*																												2	1	5
Tripsacum intermedium																												1	1	2
Tripsacum jalapense																												3	2	2
Tripsacum lanceolatum													3															6	4	17
Tripsacum latifolium																												2	1	0
Tripsacum laxum																												1	1	2
Tripsacum maizar																												1	1	0
Tripsacum manisuroides																												2	1	2
Tripsacum pilosum																												4	3	2
Tripsacum pilosum var. *guatemalense*																												1	1	0
Tripsacum zopilotense																												2	2	0
Vanilla planifolia																											1	3	2	5
Vanilla pompona																												1	1	0
Zea diploperennis																												1	1	2
Zea luxurians																										1		1	1	0
Zea mays subsp. *mexicana*											4		1															14	8	21
Zea mays subsp. *parviglumis*											1																	15	5	10
Zea perennis																												11	1	5

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico

	Protected Area/ELC Category																	
CWR Taxon	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Agave angustifolia	117	13	15	5	20	25	8	146	92	11	149	273	154	101	131	91	35	70
Agave atrovirens	97	270	348	718	135	44	64	160	49	87	16	8	19	134	108	51	241	274
Agave congesta	97	105	130	118	40	43	72	272	190	181	79	106	39	850	181	162	113	130
Agave datylio	97	49	12	87	2	1	5	21	5	19	472	887	93	0	1	96	243	36
Agave fourcroydes	97	121	147	10	895	188	12	220	204	8	33	19	64	114	2	28	12	171
Agave hiemiflora	97	121	147	10	895	188	12	220	204	8	33	19	64	114	2	28	12	171
Agave hurteri	97	2	2	14	0	3	9	8	22	55	174	57	234	87	799	375	8	137
Agave karwinskii	97	29	138	93	30	159	114	174	171	905	3	41	85	0	26	65	125	70
Agave macroacantha	97	2	40	25	28	27	82	87	167	37	191	74	35	289	179	102	144	30
Agave macroculmis	97	16	17	6	22	27	15	160	135	55	27	248	210	36	125	121	31	91
Agave rhodacantha	97	50	55	153	32	74	179	305	751	290	56	33	22	32	10	11	232	72
Agave seemanniana	97	50	80	124	360	732	207	55	118	154	28	11	22	59	32	98	15	5
Agave sisalana	117	188	201	844	8	138	132	26	118	100	144	182	139	16	29	47	32	46
Agave tequilana	97	8	13	14	32	55	16	6	9	9	248	40	143	247	5	262	425	36
Amaranthus australis	97	15	28	96	22	48	100	10	223	127	3	8	22	23	1	41	43	158
Amaranthus blitoides	97	447	0	156	206	2	90	22	16	41	43	74	44	289	13	103	191	9
Amaranthus caudatus	97	39	171	40	367	820	115	33	214	43	96	127	55	3	22	10	241	253
Amaranthus cruentus	117	60	7	68	32	4	57	268	11	130	50	107	101	37	130	136	370	138
Amaranthus dubius	318	20	4	25	8	62	2	154	331	3	196	161	2	95	71	13	41	65
Amaranthus fimbriatus	97	162	96	306	11	23	83	19	34	112	211	5	780	46	35	610	41	35
Amaranthus greggii	117	45	38	46	44	23	25	113	64	241	143	62	37	161	81	16	282	805
Amaranthus hybridus	97	244	269	49	128	132	53	78	102	59	217	35	48	171	33	48	815	267
Amaranthus hypochondriacus	97	68	104	269	33	45	45	18	42	20	10	158	978	14	44	179	12	50
Amaranthus palmeri	97	440	844	14	73	196	9	83	160	8	290	55	13	36	14	67	27	10
Amaranthus polygonoides	117	61	198	299	55	93	188	100	851	275	15	18	2	24	30	5	155	131
Amaranthus powellii	97	135	18	174	3	3	23	316	60	291	69	69	125	329	761	298	38	92
Amaranthus scariosus	117	148	55	11	177	88	0	346	134	0	111	150	2	33	24	26	16	921
Amaranthus spinosus	97	163	20	68	209	19	128	278	5	851	10	23	32	8	16	18	20	150
Amaranthus torreyi	97	51	75	135	64	80	137	170	765	328	158	57	119	347	81	229	13	8
Annona cherimola	97	83	110	141	197	26	179	117	40	103	10	88	63	6	12	18	10	19
Annona glabra	117	23	30	46	38	56	52	181	165	78	39	246	328	37	89	169	2	13
Annona globiflora	97	17	6	15	29	8	20	102	5	147	245	389	40	113	234	39	383	805
Annona liebmanniana	97	351	717	230	39	208	71	39	159	60	167	70	8	21	21	2	25	25
Annona longiflora	97	142	184	250	344	735	204	65	97	165	16	5	11	64	5	22	23	4
Annona macroprophyllata	97	157	169	107	81	142	65	723	423	136	131	148	238	87	97	112	79	126
Annona muricata	117	426	17	70	118	3	92	211	5	60	22	2	28	61	0	194	31	0
Annona purpurea	97	256	47	27	156	29	38	208	17	53	936	11	149	157	36	148	342	38
Annona reticulata	117	21	32	157	5	13	16	7	21	27	811	133	346	274	83	56	183	43
Annona squamosa	117	13	126	138	48	302	245	4	16	44	67	137	79	63	150	626	420	268
Bixa orellana	117	198	102	67	159	48	55	261	706	326	235	20	271	160	4	132	112	12

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

CWR Taxon	Protected Area/ELC Category																	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Byrsonima crassifolia	97	29	144	68	35	167	54	112	836	315	5	125	155	5	236	352	10	4
Capsicum annuum var. *glabriusculum*	117	11	22	8	36	173	3	14	35	132	65	216	759	154	375	74	41	175
Capsicum frutescens	117	77	89	23	128	136	41	223	269	36	3	136	150	5	32	23	2	18
Carica papaya	117	320	709	180	169	112	37	148	71	33	75	97	12	162	395	4	88	207
Carya illinoinensis	117	1	120	112	12	140	122	0	162	124	3	21	19	8	63	127	16	11
Carya ovata	97	96	83	14	281	229	2	148	131	4	203	799	182	66	243	38	50	165
Carya palmeri	117	47	412	85	2	17	7	14	189	57	0	47	25	28	128	248	6	66
Crataegus mexicana	117	145	81	20	273	873	82	181	101	24	211	42	41	116	75	47	418	88
Cucurbita argyrosperma	117	0	7	18	8	24	100	1	9	23	111	222	140	613	267	399	55	160
Cucurbita argyrosperma subsp. *sororia*	117	3	55	171	4	16	17	5	23	28	736	207	346	129	151	54	87	119
Cucurbita cordata	97	176	32	32	212	51	14	831	131	393	211	89	37	317	235	55	136	27
Cucurbita digitata	117	262	281	159	140	109	100	11	232	89	170	67	764	360	11	20	23	40
Cucurbita foetidissima	117	207	737	157	339	172	263	217	111	112	20	138	60	4	11	15	6	18
Cucurbita lundelliana	117	269	750	279	44	83	193	50	57	159	68	3	57	283	26	233	132	8
Cucurbita okeechobeensis subsp. *martinezii*	117	95	95	29	231	294	36	115	150	40	117	12	155	17	6	15	26	13
Cucurbita palmata	117	109	189	10	118	116	5	137	166	4	807	413	208	105	347	220	30	115
Cucurbita pedatifolia	117	211	31	6	52	12	3	45	11	231	255	748	45	144	67	57	186	100
Cucurbita pepo subsp. fraterna	117	12	12	0	19	13	62	27	0	29	67	9	47	87	222	305	118	119
Cucurbita radicans	97	151	926	10	142	144	29	203	318	31	25	369	50	53	181	42	96	253
Diospyros conzattii	117	122	176	5	927	269	12	92	147	8	29	13	177	35	7	42	14	327
Gossypium aridum	117	174	14	102	7	297	42	272	165	55	39	303	751	271	187	74	21	60
Gossypium barbadense	117	271	33	74	33	12	5	18	8	2	102	80	13	132	95	29	236	145
Gossypium gossypioides	97	155	11	243	22	25	35	3	37	102	20	25	44	9	11	43	10	19
Gossypium hirsutum	97	292	40	281	15	1	3	148	41	109	29	21	26	74	176	175	36	32
Gossypium thurberi	97	73	67	27	198	274	116	63	33	14	5	19	19	4	61	120	5	12
Helianthus laciniatus	97	284	701	98	338	311	150	158	189	101	103	27	17	7	24	7	349	27
Helianthus niveus	97	151	2	22	20	5	14	13	4	11	289	677	136	142	140	185	304	244
Hylocereus ocamponis	117	360	120	242	289	665	117	225	66	72	10	7	5	45	36	8	17	10
Ipomoea batatas	117	363	257	148	160	174	91	890	141	153	17	15	10	21	20	12	173	38
Ipomoea tiliacea	97	278	260	40	91	86	30	131	147	42	60	217	13	394	814	6	52	167
Ipomoea trifida	117	305	258	48	15	24	3	136	137	15	73	162	74	417	274	607	66	143
Ipomoea triloba	117	362	118	805	23	45	183	37	44	151	164	182	76	31	25	44	54	41
Jacaratia dolichaula	97	203	27	37	169	21	50	823	98	374	285	3	296	155	2	123	6	2
Jacaratia mexicana	97	10	35	26	16	191	273	5	17	14	28	80	47	14	144	151	36	75
Jarilla heterophylla	97	181	254	34	72	135	136	110	132	44	250	120	60	281	888	118	177	66
Jatropha andrieuxii	97	220	381	149	186	299	516	83	240	76	12	9	3	20	20	43	13	13
Jatropha mcvaughii	97	14	91	49	9	46	13	240	114	152	138	152	217	96	315	196	738	224
Leucaena confertiflora	117	26	19	7	153	42	49	14	16	6	64	213	49	39	130	65	80	398
Leucaena diversifolia	97	10	13	9	186	152	19	18	22	16	170	27	203	155	31	13	131	37
Leucaena esculenta	97	820	356	106	203	22	42	162	39	41	22	21	2	279	282	35	142	110

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category																	
CWR Taxon	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Leucaena lanceolata	117	889	280	102	91	189	55	223	298	63	146	74	143	128	93	39	183	131
Leucaena leucocephala	97	92	170	58	2	13	244	308	88	46	143	40	363	819	105	23	177	42
Manihot aesculifolia	97	244	298	37	40	51	2	132	144	12	190	40	73	284	287	746	156	43
Manihot angustiloba	117	9	68	43	8	48	25	18	207	197	77	158	70	185	447	791	3	159
Manihot caudata	117	1	15	16	0	157	56	1	24	24	51	56	218	23	133	91	32	58
Manihot chlorosticta	97	55	100	250	62	239	436	105	279	701	37	74	83	25	58	69	140	216
Manihot davisiae	117	38	97	134	78	149	218	16	90	198	1	12	27	2	9	20	11	26
Manihot foetida	97	87	49	205	107	43	128	163	31	232	815	8	412	195	26	70	314	29
Manihot michaelis	117	8	3	5	23	2	56	11	3	15	29	257	89	13	823	436	25	181
Manihot oaxacana	97	87	109	99	166	257	151	52	65	24	33	41	34	21	24	22	94	217
Manihot pauciflora	97	26	102	102	14	155	144	28	85	87	27	37	22	18	31	11	157	150
Manihot pringlei	97	2	14	18	5	23	29	3	158	170	213	37	264	125	44	140	81	40
Manihot rhomboidea	117	817	187	270	178	37	65	255	39	88	27	98	47	8	3	30	9	20
Manihot rhomboidea subsp. *microcarpa*	117	9	4	8	25	3	57	16	3	15	67	197	217	49	76	208	59	118
Manihot rubricaulis	97	220	27	78	133	38	88	221	54	136	94	6	24	24	3	9	19	8
Manihot subspicata	97	74	145	18	947	271	18	84	159	11	117	155	44	12	23	9	310	287
Manihot tomatophylla	117	13	11	13	9	8	11	30	24	78	95	173	43	231	272	36	104	112
Manilkara chicle	97	2	181	13	2	232	0	2	441	3	18	238	2	9	45	8	24	1016
Manilkara zapota	117	37	34	59	72	173	164	29	24	28	149	18	54	813	10	420	184	12
Opuntia atropes	117	105	40	122	135	141	196	128	27	173	200	37	75	788	19	348	355	37
Opuntia ficus-indica	117	103	132	42	798	142	326	157	171	52	126	88	95	112	43	83	197	128
Opuntia hyptiacantha	117	115	219	217	72	122	116	58	91	142	23	18	27	35	21	29	159	20
Opuntia lasiacantha	117	26	19	48	165	95	101	38	27	57	66	213	248	8	96	87	48	93
Opuntia spinulifera	117	10	156	787	27	91	96	12	83	81	18	156	202	222	279	124	76	158
Opuntia streptacantha	117	43	222	302	48	100	169	44	94	121	16	33	236	18	31	186	14	333
Opuntia undulata	97	93	155	68	210	251	95	170	110	50	13	9	17	9	7	12	46	26
Opuntia velutina	97	220	193	147	3	17	7	77	86	92	16	44	27	243	103	66	39	60
Pachyrhizus erosus	97	46	66	24	50	13	232	148	61	171	48	211	357	870	76	201	116	466
Persea americana	97	82	58	89	30	186	87	114	47	89	15	31	8	18	148	4	7	30
Persea schiedeana	117	129	375	39	75	111	21	85	182	20	55	215	36	156	858	179	41	173
Phaseolus acutifolius	117	941	159	166	112	51	177	79	42	145	131	32	22	8	7	11	12	12
Phaseolus acutifolius var. *acutifolius*	117	6	26	3	9	126	19	4	18	4	158	240	371	796	327	399	4	93
Phaseolus acutifolius var. *tenuifolius*	117	730	448	164	170	52	44	147	54	43	46	202	89	20	13	26	33	41
Phaseolus coccineus	117	97	164	20	25	29	12	17	20	10	84	34	73	110	48	139	227	75
Phaseolus coccineus subsp. *coccineus*	97	132	92	51	98	29	72	91	26	84	41	134	135	27	18	17	19	16
Phaseolus dumosus	117	16	30	0	106	233	5	37	43	4	205	256	123	41	59	14	115	117
Phaseolus filiformis	117	83	428	253	66	268	100	65	809	191	23	61	38	51	76	52	268	174
Phaseolus maculatus subsp. *ritensis*	97	10	20	32	2	143	12	31	68	328	157	1004	44	218	157	298	86	11
Phaseolus parvifolius	117	19	162	73	13	187	114	11	431	759	43	237	8	39	453	28	21	136
Phaseolus vulgaris	97	17	13	6	27	18	8	166	33	6	252	31	196	125	35	119	135	42

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

CWR Taxon	Protected Area/ELC Category																	
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Physalis acutifolia	97	40	63	24	76	197	136	40	36	11	153	61	27	818	205	251	179	50
Physalis ampla	97	147	268	281	757	307	452	7	80	60	10	340	238	5	47	44	5	24
Physalis angulata	117	42	45	265	121	13	66	62	288	342	0	2	7	119	180	1	35	200
Physalis crassifolia	97	77	491	63	62	245	20	5	25	7	13	14	15	20	133	76	2	17
Physalis lagascae	117	210	71	170	55	822	410	34	34	8	49	49	9	84	209	18	293	241
Physalis philadelphica	97	129	68	117	86	154	49	224	73	233	5	22	19	9	133	39	5	15
Physalis sulphurea	117	869	19	331	246	36	102	407	38	261	100	142	175	88	36	93	84	21
Pinus ayacahuite	97	105	98	64	214	151	65	45	77	154	38	204	60	84	332	55	113	823
Pinus cembroides	117	8	33	81	275	65	171	32	50	95	187	271	340	791	193	119	106	181
Pithecellobium dulce	97	99	259	416	194	147	790	81	167	194	15	18	135	58	26	0	25	22
Porophyllum gracile	97	6	41	137	18	16	3	19	28	755	360	388	31	119	29	52	140	63
Porophyllum linaria	117	89	132	43	899	204	162	117	167	52	121	93	98	63	33	70	266	137
Porophyllum ruderale	117	135	14	171	232	25	306	98	16	176	157	44	56	194	76	51	269	665
Porophyllum scoparium	117	24	21	25	35	35	50	65	187	168	361	50	242	184	49	92	12	3
Pouteria campechiana	117	180	2	147	127	3	102	202	14	98	35	2	6	42	3	8	162	8
Pouteria durlandii	117	105	34	26	4	20	18	0	14	12	798	87	228	93	97	255	161	255
Pouteria reticulata	97	267	250	46	132	134	48	106	89	28	64	223	12	50	175	12	415	814
Pouteria sapota	97	16	8	17	157	229	181	26	15	30	14	65	54	35	147	178	22	70
Psidium guajava	117	18	22	15	15	37	145	167	36	69	292	66	71	112	16	153	58	131
Psidium guineense	117	202	50	51	296	83	77	781	356	158	16	10	10	13	9	9	34	40
Psidium oligospermum	97	122	106	45	252	266	40	14	20	16	38	54	30	37	28	20	75	143
Salvia axillaris	97	4	15	25	2	127	63	0	12	16	191	21	84	279	6	915	291	20
Salvia carnea	97	4	31	2	3	23	0	10	111	1	10	156	135	12	287	222	20	203
Salvia cinnabarina	117	262	629	406	177	103	92	141	51	71	98	15	208	220	21	292	137	4
Salvia coccinea	117	106	24	52	4	23	26	0	17	15	761	274	250	77	177	40	131	248
Salvia columbariae	117	3	9	12	3	13	18	2	20	91	378	40	267	215	36	108	800	8
Salvia elegans	97	99	170	934	280	154	227	160	5	121	195	10	74	281	4	208	34	9
Salvia fluviatilis	97	228	148	227	13	47	131	88	102	136	5	12	12	8	145	88	10	22
Salvia helianthemifolia	97	8	242	186	6	139	116	11	142	83	4	42	2	5	46	6	4	218
Salvia hispanica	117	19	19	15	16	43	119	175	50	69	315	95	66	116	14	170	115	122
Salvia laevis	117	10	60	44	8	35	14	40	118	231	1	186	42	0	219	23	19	887
Salvia lasiantha	117	87	84	112	254	53	216	125	35	142	121	906	268	74	117	192	46	78
Salvia lasiocephala	117	161	229	193	100	87	135	37	21	154	209	56	61	152	38	63	705	199
Salvia longispicata	117	142	116	35	129	90	29	399	808	112	215	386	6	128	154	3	12	11
Salvia mexicana	117	78	139	130	145	216	258	176	138	917	87	30	115	131	32	154	85	14
Salvia microphylla	117	8	19	2	25	152	7	29	0	78	104	13	92	199	82	107	9	353
Salvia misella	97	249	325	225	700	342	131	142	150	147	62	46	23	156	233	24	78	69
Salvia mocinoi	117	15	9	11	43	24	27	12	5	9	85	91	108	149	81	133	118	153
Salvia occidentalis	117	20	26	11	61	202	12	13	19	6	116	60	138	36	74	83	237	64
Salvia patens	97	2	54	36	3	9	11	1	18	14	818	194	259	316	75	93	197	64

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category																	
CWR Taxon	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Salvia polystachia	117	327	40	161	175	45	89	177	11	94	184	106	54	352	757	151	151	71
Salvia prunelloides	117	69	95	109	86	141	185	57	137	145	155	116	50	225	199	111	143	837
Salvia purpurea	117	111	8	8	22	3	30	6	3	1025	112	336	37	230	31	268	10	13
Salvia regla	117	12	2	17	16	4	22	120	3	51	73	361	317	67	230	125	114	245
Salvia sanctae-luciae	117	136	300	136	454	254	633	51	126	10	39	361	3	373	18	5	1	1
Salvia setulosa	117	2	11	3	4	14	9	7	47	27	3	34	109	7	50	125	30	242
Salvia thyrsiflora	117	156	123	3	194	86	0	284	210	16	29	10	0	108	27	19	10	84
Salvia tiliifolia	97	108	81	35	206	203	71	103	120	57	201	2	68	28	2	10	37	6
Sechium chinantlense	97	21	25	9	175	785	31	28	46	13	70	63	66	198	90	156	82	57
Sechium compositum	117	213	187	74	146	102	50	115	119	52	59	248	108	238	260	753	39	168
Sechium edule subsp. *sylvestre*	97	137	143	49	91	87	37	282	263	43	56	167	17	453	818	18	63	213
Sechium hintonii	117	166	116	295	78	219	59	97	85	145	1	12	5	8	67	29	8	19
Simmondsia chinensis	97	5	27	5	39	3	3	72	100	218	283	1	128	156	4	81	151	37
Solanum bulbocastanum	97	170	39	39	813	362	104	216	40	43	6	25	20	3	68	131	5	16
Solanum cardiophyllum	117	254	175	327	164	113	141	151	873	147	21	31	91	22	49	104	17	220
Solanum demissum	97	16	4	12	52	2	119	19	3	19	217	221	63	130	88	77	117	126
Solanum ehrenbergii	117	45	7	85	13	3	12	18	6	15	341	868	16	244	426	80	107	265
Solanum hjertingii	117	98	29	118	114	32	199	108	24	151	3	0	34	4	0	25	19	191
Solanum hougasii	117	152	35	73	278	273	761	183	32	108	188	122	8	111	182	15	294	247
Solanum iopetalum	97	201	186	103	151	108	47	143	805	344	112	154	193	78	97	113	92	76
Solanum morelliforme	97	7	6	43	6	5	41	35	4	148	39	175	77	74	250	145	592	273
Solanum oxycarpum	97	43	211	115	32	167	76	249	282	750	201	258	60	91	140	68	106	81
Solanum pinnatisectum	117	7	104	236	2	32	18	3	49	41	7	27	3	46	333	278	16	213
Solanum polyadenium	117	1	111	100	4	141	158	3	284	277	321	850	62	172	71	220	18	224
Solanum schenckii	97	2	55	111	19	11	29	15	11	216	67	389	27	211	37	1033	6	342
Solanum stenophyllidium	117	210	140	72	222	215	740	330	295	130	73	88	4	134	254	21	72	64
Solanum stoloniferum	117	96	33	84	139	107	80	101	19	82	21	15	5	47	89	2	12	12
Solanum tarnii	117	25	24	7	11	15	6	206	158	16	239	41	360	51	900	99	196	40
Solanum trifidum	97	4	7	2	51	18	5	10	8	19	162	76	22	309	56	15	146	67
Solanum verrucosum	97	196	109	13	177	73	1	298	101	0	46	93	6	23	13	3	15	12
Spondias mombin	97	99	255	35	225	409	35	343	862	6	85	76	29	103	74	19	189	91
Spondias purpurea	117	2	17	13	7	73	102	3	28	18	101	199	12	706	525	9	68	169
Stenocereus alamosensis	97	14	121	131	20	194	976	22	101	118	17	3	51	167	17	211	25	10
Stenocereus beneckei	97	122	52	108	36	1	192	55	89	15	13	9	10	42	18	28	216	179
Stenocereus eruca	97	29	35	171	27	52	150	174	264	816	5	299	335	6	125	180	4	19
Stenocereus fricii	97	83	20	11	22	16	0	4	3	330	126	774	80	207	145	48	163	71
Stenocereus griseus	97	8	109	136	21	81	229	7	164	228	55	191	58	742	279	226	96	293
Stenocereus gummosus	117	23	22	7	139	55	3	17	13	5	73	116	153	111	39	85	87	256
Stenocereus montanus	97	103	81	129	20	133	202	31	101	119	89	2	47	12	3	13	15	3
Stenocereus pruinosus	117	0	19	16	4	30	21	45	228	52	109	78	328	54	61	173	17	78

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category																	
CWR Taxon	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Stenocereus queretaroensis	97	429	815	119	284	85	183	87	4	30	18	7	26	10	214	3	96	274
Stenocereus stellatus	117	61	35	155	74	38	185	888	103	280	108	35	122	288	37	222	1	2
Stenocereus thurberi	97	54	29	4	129	275	12	63	64	7	111	54	109	736	409	132	82	61
Stenocereus treleasei	97	282	14	218	36	153	147	53	67	132	40	6	23	9	6	16	13	11
Tagetes erecta	97	64	24	336	350	6	873	50	23	213	201	34	201	160	45	86	102	41
Tagetes filifolia	117	43	5	55	21	15	16	11	451	713	102	251	58	55	492	120	64	233
Tagetes foetidissima	97	114	53	3	11	13	5	14	20	5	85	135	83	27	234	207	38	133
Tagetes lucida	117	17	13	6	82	151	6	28	22	9	268	45	252	117	61	88	137	47
Tagetes micrantha	117	200	68	96	270	392	615	157	49	51	16	15	2	26	164	2	21	26
Tagetes pringlei	117	43	111	17	14	13	3	21	18	9	191	206	842	80	201	187	44	152
Tagetes stenophylla	97	1	10	3	3	16	3	3	50	29	257	201	154	164	79	90	708	132
Tagetes subulata	117	2	311	89	1	149	102	0	202	158	5	86	24	3	26	7	19	6
Theobroma cacao	117	81	37	7	41	31	0	316	81	7	53	163	26	50	199	33	361	816
Tripsacum dactyloides var. *hispidum*	117	165	132	284	215	3	212	88	25	9	17	10	4	110	26	97	172	156
Tripsacum intermedium	97	31	29	23	21	24	17	58	273	116	48	138	180	43	222	217	37	261
Tripsacum lanceolatum	97	12	13	3	93	52	2	13	22	3	260	259	234	191	302	722	175	108
Tripsacum laxum	117	308	100	98	202	65	67	257	623	148	286	46	90	162	13	72	136	25
Tripsacum maizar	97	321	121	131	27	22	8	92	51	41	31	9	72	754	232	175	133	64
Tripsacum pilosum	97	26	246	78	45	138	88	59	229	136	773	374	158	188	78	51	300	113
Vanilla planifolia	97	70	117	63	102	146	80	910	141	174	38	32	26	18	22	18	231	53
Zea diploperennis	97	75	36	235	117	12	928	202	38	395	55	28	142	36	31	321	98	15
Zea mays subsp. *mexicana*	117	35	147	9	8	31	6	5	22	7	861	346	186	69	259	103	113	155
Zea mays subsp. *Parviglumis*	97	5	64	23	1	19	3	5	27	2	208	334	731	253	253	221	167	103
Zea perennis	117	71	177	42	747	275	257	99	263	58	16	2	19	82	1	41	11	0

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

CWR Taxon	Protected Area/ELC Category										
	18	19	20	21	22	23	24	25	26	27	Total ELC Categories
Agave angustifolia	70	165	58	130	131	57	82	209	374	732	28
Agave atrovirens	78	91	248	66	35	58	31	29	27	21	28
Agave congesta	45	26	34	27	182	174	76	17	19	16	28
Agave datylio	5	21	247	318	77	61	256	34			26
Agave fourcroydes	79	0	248	105	13	316	107	1			26
Agave hiemiflora	79	0	248	105	13	316	107	1			26
Agave hurteri	196	8	245	311	10	111	306				25
Agave karwinskii	196	3	97	154	3	168	363	1	8	5	28
Agave macroacantha	12	201	16	7	289	43	109	833	162		27
Agave macroculmis	80	33	54	289	29	43	198	71	250	848	28
Agave rhodacantha	64	112	48	153	262	101	277	5	2	20	28
Agave seemanniana	12	133	97	114	107	74	105	277	167	161	28
Agave sisalana	62	0	7	4	241	197	211	85	120	114	28
Agave tequilana	310	75	27	47	762	132	190	49	22	26	28
Amaranthus australis	70	333	172	53	232	110	245	827			26
Amaranthus blitoides	45	173	8	42	1008	14	158				25
Amaranthus caudatus	73	43	37	39	233	99	73	18	25	23	28
Amaranthus cruentus	809	104	72	93	257	136	186	5	4	4	28
Amaranthus dubius	7	196	50	8	167	172	12	993			26
Amaranthus fimbriatus	316	21	77	34	4	12	12	5	13	18	28
Amaranthus greggii	195	162	102	55	293	284	81	6			26
Amaranthus hybridus	193	2	18	13	5	29	20	4	83	143	28
Amaranthus hypochondriacus	222	7	8	7	43	80	155	41	144	369	28
Amaranthus palmeri	22	308	328	0	137	178	2				25
Amaranthus polygonoides	4	21	197	125	28	123	97	34	92	80	28
Amaranthus powellii	148	61	4	24	162	118	54	34	0	12	28
Amaranthus scariosus	216	14	100	155	10	161	204	9			26
Amaranthus spinosus	182	127	41	132	215	38	264	82	43	95	28
Amaranthus torreyi	13	62	34	19	46	21	3	129	182	123	28
Annona cherimola	26	875	8	346	337	37	125	215	31	59	28
Annona glabra	45	20	187	42	40	149	111	364	824		27
Annona globiflora	6	110	90	21	86	82	27	123	94	27	28
Annona liebmanniana	9	103	66	72	217	169	163	98	118	94	28
Annona longiflora	14	218	99	55	227	87	54	124	78	64	28
Annona macroprophyllata	67	6	8	25	7	15	32	6	68	146	28
Annona muricata	31	200	101	48	358	637	254	156	53	58	28
Annona purpurea	233	139	29	26	14	0	24	12	0		27
Annona reticulata	58	87	34	136	196	223	65	123	106	61	28
Annona squamosa	1	80	50	2	44	49	2	286	105		27
Bixa orellana	122	20	0	16	25	5	29	56	19	183	28

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category										
CWR Taxon	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**Total ELC Categories**
Byrsonima crassifolia	3	48	82	0	28	66	20	192	222		27
Capsicum annuum var. *glabriusculum*	7	158	322	12	80	143	4	98	160		27
Capsicum frutescens	15	278	895	6	161	75	21	205	129	20	28
Carica papaya	7	143	85	124	11	21	21	45	3		27
Carya illinoinensis	31	74	235	111	343	820	37	174	383		27
Carya ovata	35	156	68	120	28	14	44	20	5		27
Carya palmeri	46	102	175	34	763	273	262	69	142	45	28
Crataegus mexicana	43	21	9	23	49	44	151	16	6	15	28
Cucurbita argyrosperma	85	4	225	219	15	93	222	1	131	135	28
Cucurbita argyrosperma subsp. *sororia*	60	72	43	104	156	318	126	92	161	86	28
Cucurbita cordata	54	20	10	13	15	5	9	27	10	141	28
Cucurbita digitata	128	253	2								21
Cucurbita foetidissima	21	161	109	206	66	17	56	72	36	77	28
Cucurbita lundelliana	128	126	131	70	42	0	21	63	4	33	28
Cucurbita okeechobeensis subsp. *martinezii*	23	334	863	6	41	236	16	42	186	18	28
Cucurbita palmata	10	5	26	9	5	19	6				25
Cucurbita pedatifolia	156	87	19	155	118	13	277	204	37		27
Cucurbita pepo subsp. fraterna	129	536	51	98	281	463	329	274			26
Cucurbita radicans	31	57	18	2	15	12	1	12	9		27
Diospyros conzattii	220	4	151	85	12	161	129	2			26
Gossypium aridum	3	59	113	127	153	49	0	33			26
Gossypium barbadense	45	352	155	659	85	47	164	110	74	273	28
Gossypium gossypioides	69	5	43	249	16	98	123	6	59		27
Gossypium hirsutum	55	200	12	48	823	10	409	163	19	53	28
Gossypium thurberi	11	255	114	77	726	233	77	417	266	103	28
Helianthus laciniatus	179	32	10	55	66	20	71				25
Helianthus niveus	273	284	149	59	68	54	45	41	49	25	28
Hylocereus ocamponis	8	112	36	65	197	400	36	124	62	59	28
Ipomoea batatas	35	45	36	65	53	45	79	130	41	115	28
Ipomoea tiliacea	19	16	6	13	211	16	46	30	11	21	28
Ipomoea trifida	42	42	19	2	305	64	26	77	32	4	28
Ipomoea triloba	43	6	9	31	234	86	267	85	54	139	28
Jacaratia dolichaula	54	0	29	61	3	61	135	6	265		27
Jacaratia mexicana	21	99	269	55	112	672	202	254	433	69	28
Jarilla heterophylla	54	2	17	12	1	50	58	4	21	16	28
Jatropha andrieuxii	7	55	104	27	179	98	421	57	113	47	28
Jatropha mcvaughii	158	5	13	14	0	5	3	13	33	43	28
Leucaena confertiflora	98	33	144	73	106	268	908	37	176	83	28
Leucaena diversifolia	86	349	25	101	932	10	115	226	24	40	28
Leucaena esculenta	37	70	161	168	30	23	20	33	54	35	28

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category										
CWR Taxon	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**Total ELC Categories**
Leucaena lanceolata	27	38	0	50	14	2	14	6	9		27
Leucaena leucocephala	52	45	41	174	79	168	31	43	23		27
Manihot aesculifolia	52	16	34	0	55	251	21	28	65	3	28
Manihot angustiloba	139	2	372	254	15	14					24
Manihot caudata	152	210	74	320	138	244	848	135	64	141	28
Manihot chlorosticta	239	14	12	3	9	12	3	48	39	2	28
Manihot davisiae	140	163	44	89	260	72	138	707	151	401	28
Manihot foetida	133	2	21	90	5	13	21	4	11	12	28
Manihot michaelis	69	40	222	262	38	76	202	49	126	136	28
Manihot oaxacana	57	100	34	112	141	27	144	834	244	139	28
Manihot pauciflora	102	65	51	194	72	143	337	115	130	852	28
Manihot pringlei	102	215	47	114	165	40	63	276	104	815	28
Manihot rhomboidea	93	49	148	137	4	149	226	1	267		27
Manihot rhomboidea subsp. *microcarpa*	121	71	245	144	130	283	893	64	177	72	28
Manihot rubricaulis	370	768	159	75	186	51	115	301	82		27
Manihot subspicata	38	59	42	29	154	73	165	30	34	20	28
Manihot tomatophylla	90	95	147	25	157	182	24	953	270	18	28
Manilkara chicle	12	219	10	312	7						23
Manilkara zapota	55	159	39	106	37	3	11	299	39	278	28
Opuntia atropes	196	4	13	17	2	45	41	4	9	6	28
Opuntia ficus-indica	208	19	19	14	51	35	189	10	11	8	28
Opuntia hyptiacantha	71	79	194	32	55	155	27	729	259	217	28
Opuntia lasiacantha	130	10	35	225	7	313	839	10	32	178	28
Opuntia spinulifera	59	82	58	242	43	33	39	63	43	56	28
Opuntia streptacantha	862	12	16	6	18	22	12	139	91	36	28
Opuntia undulata	27	37	177	50	41	236	51	367	818	128	28
Opuntia velutina	39	28	134	149	256	847	143	33	104	122	28
Pachyrhizus erosus	2	7									20
Persea americana	6	75	69	215	127	330	815	204	79	379	28
Persea schiedeana	32	8	35	0	6	154	126	8	42	6	28
Phaseolus acutifolius	14	115	70	51	245	167	158	116	99	98	28
Phaseolus acutifolius var. *acutifolius*	73	10	256	116	4	64	70				25
Phaseolus acutifolius var. *tenuifolius*	36	26	10	26	222	247	164	125	96	89	28
Phaseolus coccineus	259	245	761	266	32	82	141	35	114	174	28
Phaseolus coccineus subsp. *coccineus*	10	262	156	744	248	30	119	378	40	284	28
Phaseolus dumosus	67	125	71	136	740	423	137	87	69	108	28
Phaseolus filiformis	113	16	4	9	20	6	15	120	9	43	28
Phaseolus maculatus subsp. *ritensis*	181	100	164								21
Phaseolus parvifolius	14	22	29	3	15	16	149	145	14		27
Phaseolus vulgaris	89	88	30	281	64	30	183	399	15	809	28

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

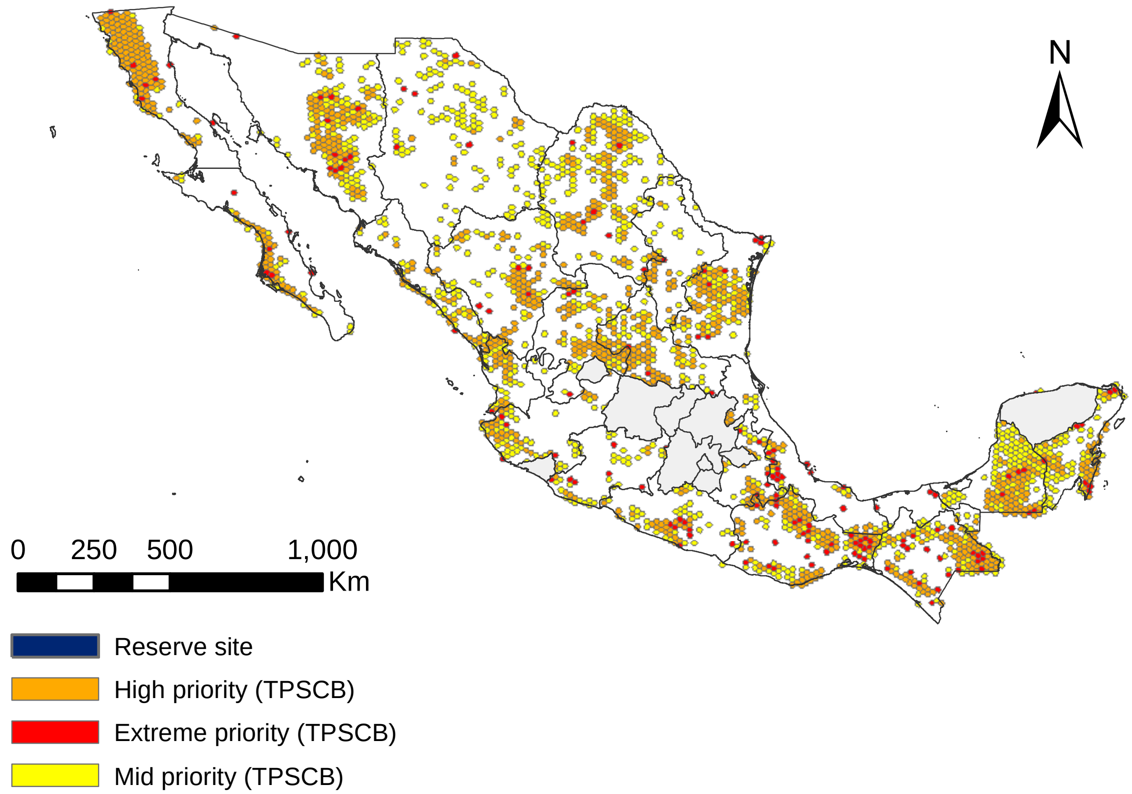
	Protected Area/ELC Category										
CWR Taxon	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**Total ELC Categories**
Physalis acutifolia	11	169	124	27	19	6	323	281	57		27
Physalis ampla	7	8	62	7	3	16	4				25
Physalis angulata	9	381	869	14	57	155	10				25
Physalis crassifolia	194	72	31	203	47	53	675	627			26
Physalis lagascae	142	114	52	96	0						23
Physalis philadelphica	11	183	43	35	817	238	187	254	39	64	28
Physalis sulphurea	81	5	43	38	5	12	15	3	9	5	28
Pinus ayacahuite	361	17	6	19	11	5	16	37	3	125	28
Pinus cembroides	152	5	12	12	87	21	27	8	13	15	28
Pithecellobium dulce	19	80	210	29	165	38	23	90			26
Porophyllum gracile	16	45	16	119	505	131	44	269	79		27
Porophyllum linaria	167	16	22	13	193	47	35	9	12	10	28
Porophyllum ruderale	359	5	3	37	5	2	26	4	6	170	28
Porophyllum scoparium	0	198	43	22	167	45	35	839	184	259	28
Pouteria campechiana	5	182	136	266	91	73	164	329	707	254	28
Pouteria durlandii	383	229	80	172	24	55	87	8	42	68	28
Pouteria reticulata	6	17	7	12	29	9	20	172	14	34	28
Pouteria sapota	68	68	409	271	101	596	195	59	249	117	28
Psidium guajava	108	123	192	162	156	137	920				25
Psidium guineense	25	76	110	88	107	206	148	68	219	84	28
Psidium oligospermum	171	170	43	37	219	41	39	820	381	112	28
Salvia axillaris	140	91	43	134	74	46	138	129	33	257	28
Salvia carnea	77	55	61	163	93	78	209	744	289	280	28
Salvia cinnabarina	165	24	2	110	7	17	7	0	25		27
Salvia coccinea	54	44	106	127	6	147	125	9	203	246	28
Salvia columbariae	359	92	23	94	98	35	109	110	36	259	28
Salvia elegans	4	142	10	2	21	7	2				25
Salvia fluviatilis	20	49	162	127	121	206	932	28	130	104	28
Salvia helianthemifolia	4	107	140	215	48	89	155	606	394	259	28
Salvia hispanica	57	219	165	57	814	138	348				25
Salvia laevis	370	4	198	87	5	383	245	16	1		27
Salvia lasiantha	154	124	28	30	20	2	10	29	2	11	28
Salvia lasiocephala	342	16	5	13	24	11	23	149	10	105	28
Salvia longispicata	0	23	44	0	45	67	3	228	143	21	28
Salvia mexicana	194	11	2	33	10	1	20	26	1	134	28
Salvia microphylla	346	14	274	891	10	216	152				25
Salvia misella	23	10	19	1	29	145	10	32	2		27
Salvia mocinoi	197	180	50	66	751	158	355	269	70	121	28
Salvia occidentalis	228	16	57	193	109	282	874	47	42	261	28
Salvia patens	47	80	142	138	167	67	199	105	60	113	28

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category										
CWR Taxon	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**Total ELC Categories**
Salvia polystachia	42	30	13	78	99	13	37	3	16		27
Salvia prunelloides	248	15	6	17	13	3	12	21	67	45	28
Salvia purpurea	414	5	0	233	5	1					24
Salvia regla	804	16	63	58	29	66	89	82	123	216	28
Salvia sanctae-luciae	50	4	31								21
Salvia setulosa	108	153	88	511	82	71	261	766	228	284	28
Salvia thyrsiflora	152	46	435	269	608	105	203	97			26
Salvia tiliifolia	23	244	274	743	100	230	103	62	167	59	28
Sechium chinantlense	63	200	325	156	108	212	79	75	210	90	28
Sechium compositum	80	18	5	19	170	3	36	26	9	21	28
Sechium edule subsp. *sylvestre*	11	22	6	16	55	10	125	14	4	12	28
Sechium hintonii	5	54	132	160	159	940	158	44	97	125	28
Simmondsia chinensis	260	78	30	185	63	26	823	272	172		27
Solanum bulbocastanum	12	139	132	47	91	124	61	263	268	43	28
Solanum cardiophyllum	129	2	16	12	2	20	15	126	30		27
Solanum demissum	55	72	264	65	348	812	127	44	179	58	28
Solanum ehrenbergii	57	150	89	113	46	61	18	56	71	34	28
Solanum hjertingii	106	139	97	189	220	183	722	136	379		27
Solanum hougasii	31	20	18	3	22	99	6	17	12	2	28
Solanum iopetalum	147	12	4	16	15	8	21	107	8	48	28
Solanum morelliforme	398	32	109	121	20	182	222	37	81	167	28
Solanum oxycarpum	54	23	8	16	25	11	27	158	6	60	28
Solanum pinnatisectum	112	749	306	294	74	180	26	54	164	52	28
Solanum polyadenium	48	9	37	12	8	22	6				25
Solanum schenckii	26	223	27								21
Solanum stenophyllidium	0	3	36	3	3	142	6	6	31	2	28
Solanum stoloniferum	4	95	59	229	352	107	822	231	68	390	28
Solanum tarnii	4	347	32	4	187	38	3				25
Solanum trifidum	59	339	267	108	924	164	33	145	185		27
Solanum verrucosum	933	157	112	110	175	31	232	235	37		27
Spondias mombin	47	26	10	15	23	5	13	129	9	24	28
Spondias purpurea	16	41	435	41	9	165	92	10	220	47	28
Stenocereus alamosensis	70	41	182	418	1	11	12	44	100	178	28
Stenocereus beneckei	2	462	267	1	970	206	1				25
Stenocereus eruca	0	24	52	4	53	63	114	172	136		27
Stenocereus fricii	201	45	72	69	70	57	237	72	96		27
Stenocereus griseus	87	3	9	37	8	3	147	5	26		27
Stenocereus gummosus	270	40	34	168	223	259	822	20	54	213	28
Stenocereus montanus	20	184	822	257	69	340	122	63	206	51	28
Stenocereus pruinosus	95	239	40	75	174	47	51	814	210	162	28

Supplementary Table 3.9. Representativeness of the ELC zones in protected areas of Mexico (continued)

	Protected Area/ELC Category										
CWR Taxon	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**Total ELC Categories**
Stenocereus queretaroensis	202	159	123								21
Stenocereus stellatus	10	46	39	45	22	23	46	142	169	106	28
Stenocereus thurberi	96	176	300	170	18	6	13	98	124	87	28
Stenocereus treleasei	16	313	121	743	53	145	367	46	55	221	28
Tagetes erecta	120	26	14	7	136	27	11	28	19	14	28
Tagetes filifolia	24	134	161	7	35	170	0	21			26
Tagetes foetidissima	123	13	413	819	31	127	277	31	66	184	28
Tagetes lucida	138	33	47	227	349	112	812	32	41	172	28
Tagetes micrantha	0	236	262	22	112	132	13	162	132	3	28
Tagetes pringlei	107	125	89	90	201	110	159	109	79	102	28
Tagetes stenophylla	436	77	158	117	39	115	118	29	153	183	28
Tagetes subulata	107	820	282	28	97	186	34	232	282		27
Theobroma cacao	112	119	156	21	266	298	56	7	14	2	28
Tripsacum dactyloides var. *hispidum*	227	926	281								21
Tripsacum intermedium	744	7	27	134	13	77	272	110	176		27
Tripsacum lanceolatum	117	40	91	56	123	175	94	55	92	71	28
Tripsacum laxum	94	26	15	44	12	13	194	286	40		27
Tripsacum maizar	190	1	2	1	150	268	17	71	51	13	28
Tripsacum pilosum	82	5	64	8	4	19	7	3	13	0	28
Vanilla planifolia	82	119	105	79	278	153	144	48	26	31	28
Zea diploperennis	150	14	16	16	11	22	135	8	13	15	28
Zea mays subsp. *mexicana*	10	160	137	4	243	251	3				25
Zea mays subsp. *Parviglumis*	103	14	274	116	21	120	87	22	113	100	28
Zea perennis	13	49	109	133	98	80	139	52	169	256	28



Supplementary Figure 3.1. Terrestrial priority sites for biodiversity conservation and reserve sites for the CWR conservation in Mexico. Adapted from: CONABIO, CONANP, TNC, Pronatura (2007).

Supplementary Table 4.1. Selected Mexican crop wild relatives used for the analysis of the impacts of climate change

Crop gene pool	Family	CWR taxa	Occurrences
Agave	Asparagaceae	*Agave angustifolia*	546
Agave	Asparagaceae	*Agave atrovirens*	21
Agave	Asparagaceae	*Agave datylio*	17
Agave	Asparagaceae	*Agave fourcroydes*	38
Agave	Asparagaceae	*Agave hiemiflora*	21
Agave	Asparagaceae	*Agave hurteri*	11
Agave	Asparagaceae	*Agave karwinskii*	52
Agave	Asparagaceae	*Agave kewensis*	14
Agave	Asparagaceae	*Agave macroacantha*	32
Agave	Asparagaceae	*Agave macroculmis*	23
Agave	Asparagaceae	*Agave rhodacantha*	51
Agave	Asparagaceae	*Agave seemanniana*	51
Agave	Asparagaceae	*Agave sisalana*	14
Agave	Asparagaceae	*Agave tequilana*	22
Amaranth	Amaranthaceae	*Amaranthus australis*	31
Amaranth	Amaranthaceae	*Amaranthus caudatus*	22
Amaranth	Amaranthaceae	*Amaranthus cruentus*	66
Amaranth	Amaranthaceae	*Amaranthus dubius*	55
Amaranth	Amaranthaceae	*Amaranthus fimbriatus*	64
Amaranth	Amaranthaceae	*Amaranthus hybridus*	667
Amaranth	Amaranthaceae	*Amaranthus hypochondriacus*	98
Amaranth	Amaranthaceae	*Amaranthus palmeri*	217
Amaranth	Amaranthaceae	*Amaranthus powellii*	94
Amaranth	Amaranthaceae	*Amaranthus scariosus*	48
Amaranth	Amaranthaceae	*Amaranthus spinosus*	477
Amaranth	Amaranthaceae	*Amaranthus torreyi*	67
Annona	Annonaceae	*Annona cherimola*	340
Annona	Annonaceae	*Annona glabra*	184
Annona	Annonaceae	*Annona globiflora*	374
Annona	Annonaceae	*Annona longiflora*	69
Annona	Annonaceae	*Annona reticulata*	516
Annona	Annonaceae	*Annona macroprophyllata*	65
Annona	Annonaceae	*Annona muricata*	131
Annona	Annonaceae	*Annona purpurea*	109
Annona	Annonaceae	*Annona liebmanniana*	24
Annona	Annonaceae	*Annona squamosa*	291
Annatto	Bixaceae	*Bixa orellana*	273
Nance	Malpighiaceae	*Byrsonima crassifolia*	465
Chili pepper	Solanaceae	*Capsicum annuum* var. *glabriusculum*	266
Chili pepper	Solanaceae	*Capsicum frutescens*	388
Papaya	Caricaceae	*Carica papaya*	307
Pecan	Juglandaceae	*Carya illinoinensis*	141
Pecan	Juglandaceae	*Carya ovata*	101
Pecan	Juglandaceae	*Carya palmeri*	42
Mexican hawthorn	Rosaceae	*Crataegus mexicana*	251
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita argyrosperma*	225
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita argyrosperma* subsp. *sororia*	465
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita cordata*	94
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita digitata*	92
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita foetidissima*	242
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita lundelliana*	77
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita okeechobeensis* subsp. *martinezii*	116
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita palmata*	37
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita pedatifolia*	85
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita pepo* subsp. *fraterna*	15
Pumpkin, squash, cushaw	Cucurbitaceae	*Cucurbita radicans*	83
Cotton	Malvaceae	*Gossypium aridum*	212
Cotton	Malvaceae	*Gossypium barbadense*	80
Cotton	Malvaceae	*Gossypium gossypioides*	45
Cotton	Malvaceae	*Gossypium hirsutum*	931
Cotton	Malvaceae	*Gossypium thurberi*	39
Sunflower	Asteraceae (Compositae)	*Helianthus annuus*	156

Supplementary Table 4.1. Selected Mexican crop wild relatives used for the analysis of the impacts of climate change (continued)

Crop gene pool	Family	CWR taxa	Occurrences
Sunflower	Asteraceae (Compositae)	*Helianthus californicus*	12
Sunflower	Asteraceae (Compositae)	*Helianthus ciliaris*	17
Sunflower	Asteraceae (Compositae)	*Helianthus laciniatus*	102
Sunflower	Asteraceae (Compositae)	*Helianthus niveus*	107
Pitahaya	Cactaceae	*Hylocereus ocamponis*	49
Sweet-potato	Convolvulaceae	*Ipomoea batatas*	222
Sweet-potato	Convolvulaceae	*Ipomoea leucantha*	13
Sweet-potato	Convolvulaceae	*Ipomoea tiliacea*	184
Sweet-potato	Convolvulaceae	*Ipomoea trifida*	467
Sweet-potato	Convolvulaceae	*Ipomoea triloba*	184
Papaya	Caricaceae	*Jacaratia dolichaula*	111
Papaya	Caricaceae	*Jacaratia mexicana*	252
Papaya	Caricaceae	*Jarilla caudata*	21
Papaya	Caricaceae	*Jarilla heterophylla*	55
Physic nut	Euphorbiaceae	*Jatropha andrieuxii*	17
Physic nut	Euphorbiaceae	*Jatropha mcvaughii*	12
Lead tree	Fabaceae (Leguminosae)	*Leucaena confertiflora*	50
Lead tree	Fabaceae (Leguminosae)	*Leucaena esculenta*	489
Lead tree	Fabaceae (Leguminosae)	*Leucaena lanceolata*	496
Lead tree	Fabaceae (Leguminosae)	*Leucaena leucocephala*	935
Cassava	Euphorbiaceae	*Manihot aesculifolia*	218
Cassava	Euphorbiaceae	*Manihot angustiloba*	120
Cassava	Euphorbiaceae	*Manihot caudata*	106
Cassava	Euphorbiaceae	*Manihot chlorosticta*	221
Cassava	Euphorbiaceae	*Manihot crassisepala*	31
Cassava	Euphorbiaceae	*Manihot davisiae*	40
Cassava	Euphorbiaceae	*Manihot michaelis*	31
Cassava	Euphorbiaceae	*Manihot oaxacana*	116
Cassava	Euphorbiaceae	*Manihot pauciflora*	52
Cassava	Euphorbiaceae	*Manihot pringlei*	53
Cassava	Euphorbiaceae	*Manihot rhomboidea*	95
Cassava	Euphorbiaceae	*Manihot rhomboidea* subsp. *microcarpa*	73
Cassava	Euphorbiaceae	*Manihot rubricaulis*	117
Cassava	Euphorbiaceae	*Manihot subspicata*	24
Cassava	Euphorbiaceae	*Manihot tomatophylla*	39
Naseberry, gum tree	Sapotaceae	*Manilkara chicle*	39
Naseberry, gum tree	Sapotaceae	*Manilkara zapota*	466
Opuntia	Cactaceae	*Opuntia atropes*	53
Opuntia	Cactaceae	*Opuntia ficus-indica*	123
Opuntia	Cactaceae	*Opuntia hyptiacantha*	136
Opuntia	Cactaceae	*Opuntia lasiacantha*	140
Opuntia	Cactaceae	*Opuntia spinulifera*	25
Opuntia	Cactaceae	*Opuntia streptacantha*	254
Opuntia	Cactaceae	*Opuntia velutina*	67
Opuntia	Cactaceae	*Opuntia wilcoxii*	30
Yam-bean	Fabaceae (Leguminosae)	*Pachyrhizus erosus*	245
Yam-bean	Fabaceae (Leguminosae)	*Pachyrhizus ferrugineus*	25
Avocado	Lauraceae	*Persea americana*	634
Avocado	Lauraceae	*Persea schiedeana*	62
Bean	Fabaceae (Leguminosae)	*Phaseolus acutifolius*	452
Bean	Fabaceae (Leguminosae)	*Phaseolus acutifolius* var. *acutifolius*	346
Bean	Fabaceae (Leguminosae)	*Phaseolus acutifolius* var. *tenuifolius*	103
Bean	Fabaceae (Leguminosae)	*Phaseolus albescens*	18
Bean	Fabaceae (Leguminosae)	*Phaseolus coccineus*	1843
Bean	Fabaceae (Leguminosae)	*Phaseolus coccineus* subsp. *coccineus*	328
Bean	Fabaceae (Leguminosae)	*Phaseolus dumosus*	148
Bean	Fabaceae (Leguminosae)	*Phaseolus filiformis*	564
Bean	Fabaceae (Leguminosae)	*Phaseolus maculatus* subsp. *ritensis*	128
Bean	Fabaceae (Leguminosae)	*Phaseolus parvifolius*	83
Bean	Fabaceae (Leguminosae)	*Phaseolus vulgaris*	2846
Bean	Fabaceae (Leguminosae)	*Phaseolus vulgaris* var. *aborigineus*	25
Husk tomato	Solanaceae	*Physalis acutifolia*	94

Supplementary Table 4.1. Selected Mexican crop wild relatives used for the analysis of the impacts of climate change (continued)

Crop gene pool	**Family**	**CWR taxa**	**Occurrences**
Husk tomato	Solanaceae	*Physalis ampla*	15
Husk tomato	Solanaceae	*Physalis angulata*	82
Husk tomato	Solanaceae	*Physalis crassifolia*	67
Husk tomato	Solanaceae	*Physalis lagascae*	92
Husk tomato	Solanaceae	*Physalis philadelphica*	371
Husk tomato	Solanaceae	*Physalis sulphurea*	55
Pinyon	Pinaceae	*Pinus ayacahuite*	48
Pinyon	Pinaceae	*Pinus cembroides*	433
Pinyon	Pinaceae	*Pinus monophylla*	20
Pinyon	Pinaceae	*Pinus quadrifolia*	19
Blackbead	Fabaceae (Leguminosae)	*Pithecellobium dulce*	1835
Poreleaf, pipicha	Asteraceae (Compositae)	*Porophyllum gracile*	173
Poreleaf, pipicha	Asteraceae (Compositae)	*Porophyllum linaria*	105
Poreleaf, pipicha	Asteraceae (Compositae)	*Porophyllum ruderale*	210
Poreleaf, pipicha	Asteraceae (Compositae)	*Porophyllum scoparium*	83
Marmalade-plum, yellow sapote	Sapotaceae	*Pouteria campechiana*	184
Marmalade-plum, yellow sapote	Sapotaceae	*Pouteria durlandii*	41
Marmalade-plum, yellow sapote	Sapotaceae	*Pouteria glomerata*	18
Marmalade-plum, yellow sapote	Sapotaceae	*Pouteria reticulata*	84
Marmalade-plum, yellow sapote	Sapotaceae	*Pouteria sapota*	46
Guava	Myrtaceae	*Psidium guajava*	319
Guava	Myrtaceae	*Psidium guineense*	75
Guava	Myrtaceae	*Psidium oligospermum*	180
Chia, sage	Lamiaceae (Labiatae)	*Salvia axillaris*	51
Chia, sage	Lamiaceae (Labiatae)	*Salvia carnea*	61
Chia, sage	Lamiaceae (Labiatae)	*Salvia cinnabarina*	84
Chia, sage	Lamiaceae (Labiatae)	*Salvia coccinea*	402
Chia, sage	Lamiaceae (Labiatae)	*Salvia columbariae*	37
Chia, sage	Lamiaceae (Labiatae)	*Salvia elegans*	567
Chia, sage	Lamiaceae (Labiatae)	*Salvia fluviatilis*	10
Chia, sage	Lamiaceae (Labiatae)	*Salvia helianthemifolia*	36
Chia, sage	Lamiaceae (Labiatae)	*Salvia hispanica*	127
Chia, sage	Lamiaceae (Labiatae)	*Salvia laevis*	128
Chia, sage	Lamiaceae (Labiatae)	*Salvia lasiantha*	20
Chia, sage	Lamiaceae (Labiatae)	*Salvia lasiocephala*	107
Chia, sage	Lamiaceae (Labiatae)	*Salvia leucantha*	18
Chia, sage	Lamiaceae (Labiatae)	*Salvia longistyla*	20
Chia, sage	Lamiaceae (Labiatae)	*Salvia mexicana*	186
Chia, sage	Lamiaceae (Labiatae)	*Salvia microphylla*	548
Chia, sage	Lamiaceae (Labiatae)	*Salvia misella*	113
Chia, sage	Lamiaceae (Labiatae)	*Salvia mocinoi*	105
Chia, sage	Lamiaceae (Labiatae)	*Salvia occidentalis*	211
Chia, sage	Lamiaceae (Labiatae)	*Salvia patens*	45
Chia, sage	Lamiaceae (Labiatae)	*Salvia polystachia*	108
Chia, sage	Lamiaceae (Labiatae)	*Salvia prunelloides*	53
Chia, sage	Lamiaceae (Labiatae)	*Salvia purpurea*	402
Chia, sage	Lamiaceae (Labiatae)	*Salvia regla*	80
Chia, sage	Lamiaceae (Labiatae)	*Salvia setulosa*	13
Chia, sage	Lamiaceae (Labiatae)	*Salvia thyrsiflora*	131
Chia, sage	Lamiaceae (Labiatae)	*Salvia tiliifolia*	340
Chayote	Cucurbitaceae	*Sechium chinantlense*	22
Chayote	Cucurbitaceae	*Sechium compositum*	32
Chayote	Cucurbitaceae	*Sechium edule* subsp. *sylvestre*	32
Chayote	Cucurbitaceae	*Sechium hintonii*	15
Goatnut	Simmondsiaceae	*Simmondsia chinensis*	212
Potato	Solanaceae	*Solanum bulbocastanum*	442
Potato	Solanaceae	*Solanum cardiophyllum*	241
Potato	Solanaceae	*Solanum clarum*	12
Potato	Solanaceae	*Solanum demissum*	683
Potato	Solanaceae	*Solanum ehrenbergii*	179
Potato	Solanaceae	*Solanum hjertingii*	81
Potato	Solanaceae	*Solanum hougasii*	86

Supplementary Table 4.1. Selected Mexican crop wild relatives used for the analysis of the impacts of climate change (continued)

Crop gene pool	Family	CWR taxa	Occurrences
Potato	Solanaceae	*Solanum iopetalum*	379
Potato	Solanaceae	*Solanum morelliforme*	127
Potato	Solanaceae	*Solanum oxycarpum*	81
Potato	Solanaceae	*Solanum pinnatisectum*	108
Potato	Solanaceae	*Solanum polyadenium*	116
Potato	Solanaceae	*Solanum schenckii*	58
Potato	Solanaceae	*Solanum stenophyllidium*	162
Potato	Solanaceae	*Solanum stoloniferum*	1211
Potato	Solanaceae	*Solanum tarnii*	38
Potato	Solanaceae	*Solanum trifidum*	129
Potato	Solanaceae	*Solanum verrucosum*	523
Purple mombin	Anacardiaceae	*Spondias mombin*	227
Yellow mombin	Anacardiaceae	*Spondias purpurea*	206
Pitaya, cina	Cactaceae	*Stenocereus alamosensis*	46
Pitaya, cina	Cactaceae	*Stenocereus beneckei*	25
Pitaya, cina	Cactaceae	*Stenocereus chrysocarpus*	17
Pitaya, cina	Cactaceae	*Stenocereus eruca*	26
Pitaya, cina	Cactaceae	*Stenocereus fricii*	13
Pitaya, cina	Cactaceae	*Stenocereus griseus*	51
Pitaya, cina	Cactaceae	*Stenocereus gummosus*	84
Pitaya, cina	Cactaceae	*Stenocereus kerberi*	12
Pitaya, cina	Cactaceae	*Stenocereus montanus*	24
Pitaya, cina	Cactaceae	*Stenocereus pruinosus*	110
Pitaya, cina	Cactaceae	*Stenocereus queretaroensis*	66
Pitaya, cina	Cactaceae	*Stenocereus quevedonis*	16
Pitaya, cina	Cactaceae	*Stenocereus standleyi*	18
Pitaya, cina	Cactaceae	*Stenocereus stellatus*	64
Pitaya, cina	Cactaceae	*Stenocereus thurberi*	96
Pitaya, cina	Cactaceae	*Stenocereus treleasei*	19
Marigold	Asteraceae (Compositae)	*Tagetes micrantha*	259
Marigold	Asteraceae (Compositae)	*Tagetes stenophylla*	51
Maize	Poaceae (Gramineae)	*Tripsacum bravum*	18
Maize	Poaceae (Gramineae)	*Tripsacum dactyloides* var. *hispidum*	186
Maize	Poaceae (Gramineae)	*Tripsacum dactyloides* var. *mexicanum*	28
Maize	Poaceae (Gramineae)	*Tripsacum zopilotense*	18
Maize	Poaceae (Gramineae)	*Zea diploperennis*	89
Maize	Poaceae (Gramineae)	*Zea mays* subsp. *mexicana*	792
Maize	Poaceae (Gramineae)	*Zea mays* subsp. *parviglumis*	848
Maize	Poaceae (Gramineae)	*Zea perennis*	47
40	**24**	**225**	**41541**

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Agave aktites	0.994	-0.3991	NA	NA	NA	0.4198	5	13	no
Agave angustifolia	0.867	0.0212	29	435971	0.01	0.3336	10	546	yes
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	no
Agave atrovirens	0.9731	0.0097	193	161815	0.12	0.2101	5	21	yes
Agave congesta	0.9931	0.0033	1283	15139	8.47	0.369	5	11	yes
Agave datylio	0.9828	0.0062	272	110782	0.25	0.2223	5	17	yes
Agave fourcroydes	0.9804	0.0097	90	90461	0.10	0.0801	5	38	yes
Agave hiemiflora	0.9902	0.0067	993	96543	1.03	0.0485	5	21	yes
Agave hurteri	0.9262	0.0236	7006	176082	3.98	0.4275	5	11	yes
Agave karwinskii	0.9753	0.0104	236	117204	0.20	0.0726	10	52	yes
Agave kewensis	0.9918	0.0051	2	43330	0.00	0.4127	5	14	yes
Agave macroacantha	0.977	0.0153	752	76942	0.98	0.0679	5	32	yes
Agave macroculmis	0.9451	0.0204	735	198637	0.37	0.2878	5	23	yes
Agave mapisaga	0.8267	0.087	79098	433052	18.27	0.308	5	14	no
Agave rhodacantha	0.9033	0.0519	2341	281849	0.83	0.3411	10	51	yes
Agave seemanniana	0.973	0.0112	0	178538	0.00	0.1128	10	51	yes
Agave sisalana	0.8218	0.0898	23912	519406	4.60	0.346	5	14	yes
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	no
Agave tequilana	0.9766	0.0091	3310	129838	2.55	0.3177	5	22	yes
Amaranthus australis	0.9351	0.0313	4109	440218	0.93	0.0518	5	31	yes
Amaranthus blitoides	0.6579	0.1057	NA	NA	NA	0.4548	5	14	no
Amaranthus caudatus	0.861	0.0739	3914	440409	0.89	0.0729	5	22	yes
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	no
Amaranthus cruentus	0.8682	0.0711	742	323574	0.23	0.2434	10	66	yes
Amaranthus dubius	0.919	0.041	1079	348530	0.31	0.1274	10	55	yes
Amaranthus fimbriatus	0.943	0.0297	0	261547	0.00	0.1993	10	64	yes
Amaranthus greggii	3.0876	0.9793	64	96678	0.07	0.1267	10	116	no
Amaranthus hybridus	0.8609	0.0198	8	495979	0.00	0.3419	10	667	yes
Amaranthus hypochondriacus	0.9305	0.0395	98	143023	0.07	0.2144	10	98	yes
Amaranthus palmeri	0.79	0.0488	194	524938	0.04	0.3991	10	217	yes
Amaranthus polygonoides	0.7048	0.1005	10514	581917	1.81	0.3991	5	36	yes
Amaranthus powellii	0.907	0.0359	923	349740	0.26	0.1924	10	94	yes
Amaranthus scariosus	0.9171	0.0415	2090	287182	0.73	0.1739	5	48	yes
Amaranthus spinosus	0.885	0.0179	116	439517	0.03	0.3558	10	477	yes
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	no
Amaranthus torreyi	0.8923	0.0461	12	489808	0.00	0.1277	10	67	yes
Annona cherimola	0.9168	0.019	43	307215	0.01	0.231	10	340	yes
Annona glabra	0.9611	0.0135	263	177297	0.15	0.2141	10	184	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Annona globiflora	0.9545	0.0118	49	2498840	0.00	0.1999	10	374	yes
Annona longiflora	0.9528	0.0213	0	258755	0.00	0.1658	10	69	yes
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	no
Annona macroprophyllata	0.9297	0.0299	436	343353	0.13	0.2145	10	65	yes
Annona muricata	0.9095	0.0226	2255	353439	0.64	0.2951	10	131	yes
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	no
Annona purpurea	0.9506	0.0187	215	259183	0.08	0.1957	10	109	yes
Annona reticulata	0.8968	0.014	157	438495	0.04	0.3031	10	516	yes
Annona liebmanniana	0.9582	0.0265	0	226165	0.00	0.1214	5	24	yes
Annona squamosa	0.9374	0.0153	140	280275	0.05	0.2213	10	291	yes
Bixa orellana	0.9259	0.0131	442	400868	0.11	0.263	10	273	yes
Byrsonima crassifolia	0.8926	0.0142	0	551160	0.00	0.2864	10	465	yes
Capsicum annuum var. *glabriusculum*	0.8095	0.0386	684	517155	0.13	0.3819	10	266	yes
Capsicum frutescens	0.899	0.0166	1	395339	0.00	0.3461	10	388	yes
Carica papaya	0.9019	0.0196	21	450356	0.00	0.2873	10	307	yes
Carya illinoinensis	0.8259	0.0504	2398	397451	0.60	0.3938	10	141	yes
Carya myristiciformis	0.9307	0.0463	9656	116296	8.30	0.2742	5	26	yes
Carya ovata	0.9669	0.0146	123	176423	0.07	0.0991	10	101	yes
Carya palmeri	0.9325	0.0466	633	132648	0.48	0.2656	5	42	yes
Crataegus mexicana	0.9412	0.018	7	177199	0.00	0.243	10	251	yes
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	no
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	no
Cucurbita argyrosperma	0.8263	0.0357	740	507157	0.15	0.384	10	225	yes
Cucurbita argyrosperma subsp. *sororia*	0.8673	0.024	0	539620	0.00	0.2741	10	465	yes
Cucurbita cordata	0.9512	0.0228	2081	144088	1.44	0.2012	10	94	yes
Cucurbita digitata	0.9241	0.0235	1054	245315	0.43	0.2582	10	92	yes
Cucurbita foetidissima	0.8114	0.0392	2765	556074	0.50	0.3757	10	242	yes
Cucurbita lundelliana	0.9567	0.0195	0	2498889	0.00	0.1549	10	77	yes
Cucurbita okeechobeensis subsp. *martinezii*	0.9239	0.0379	246	138493	0.18	0.1816	10	116	yes
Cucurbita palmata	0.9471	0.0154	11080	280724	3.95	0.0904	5	37	yes
Cucurbita pedatifolia	0.9372	0.0239	0	235866	0.00	0.3196	10	85	yes
Cucurbita pepo subsp. *fraterna*	0.9791	0.0101	10329	146287	7.06	0.221	5	15	yes
Cucurbita radicans	0.9576	0.0131	144	283257	0.05	0.1543	10	83	yes
Diospyros conzattii	0.9284	0.0529	6252	122675	5.10	0.1849	5	31	yes
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	no
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	no
Gossypium aridum	0.9267	0.0262	557	232279	0.24	0.1406	10	212	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Gossypium barbadense	0.8707	0.0463	23	486046	0.00	0.313	10	80	yes
Gossypium gossypioides	0.9361	0.0418	1242	111705	1.11	0.1763	5	45	yes
Gossypium hirsutum	0.8461	0.0189	0	579174	0.00	0.2946	10	931	yes
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	no
Gossypium thurberi	0.8793	0.073	5014	283098	1.77	0.1037	5	39	yes
Helianthus annuus	0.7261	0.0638	1718	32364	5.31	0.4718	10	156	yes
Helianthus californicus	0.9926	0.0012	19	32364	0.06	0.4588	5	12	yes
Helianthus ciliaris	0.7956	0.0588	0	432892	0.00	0.4319	5	17	yes
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	no
Helianthus laciniatus	0.894	0.0314	1992	490667	0.41	0.2621	10	102	yes
Helianthus niveus	0.9464	0.0304	445	207202	0.21	0.1174	10	107	yes
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	no
Hylocereus ocamponis	0.9203	0.0211	911	270960	0.34	0.3705	5	49	yes
Ipomoea batatas	0.8851	0.0322	72	338730	0.02	0.3562	10	222	yes
Ipomoea leucantha	0.809	0.0767	496	497014	0.10	0.5161	5	13	yes
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	no
Ipomoea tiliacea	0.8913	0.0389	465	372991	0.12	0.2821	10	184	yes
Ipomoea trifida	0.8786	0.0283	192	385116	0.05	0.2939	10	467	yes
Ipomoea triloba	0.8433	0.0378	701	440817	0.16	0.4049	10	184	yes
Jacaratia dolichaula	0.9738	0.0147	0	134222	0.00	0.063	10	111	yes
Jacaratia mexicana	0.9458	0.017	6	229129	0.00	0.1936	10	252	yes
Jarilla caudata	0.9509	0.023	12919	225058	5.74	0.2821	5	21	yes
Jarilla heterophylla	0.9227	0.055	196	190055	0.10	0.2362	10	55	yes
Jatropha andrieuxii	0.9687	0.0135	1239	106144	1.17	0.3843	5	17	yes
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	no
Jatropha mcvaughii	0.9229	0.0349	3101	315175	0.98	0.3079	5	12	yes
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	no
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	no
Leucaena confertiflora	0.9758	0.0095	5	172278	0.00	0.1331	10	50	yes
Leucaena diversifolia	0.9344	0.0128	232623	2266266	10.26	0.2165	10	443	no
Leucaena esculenta	0.9049	0.0169	1	320852	0.00	0.2811	10	489	yes
Leucaena lanceolata	0.9258	0.0158	1	338265	0.00	0.1724	10	496	yes
Leucaena leucocephala	0.8597	0.0162	0	528288	0.00	0.3012	10	935	yes
Manihot aesculifolia	0.8713	0.0334	475	388128	0.12	0.3585	10	218	yes
Manihot angustiloba	0.8219	0.0551	556	431781	0.13	0.355	10	120	yes
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	no

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Manihot caudata	0.8251	0.0761	907	409484	0.22	0.2796	10	106	yes
Manihot chlorosticta	0.9385	0.0275	13	220118	0.01	0.12	10	221	yes
Manihot crassisepala	0.844	0.0967	19388	223303	8.68	0.4177	5	31	yes
Manihot davisiae	0.8919	0.0772	481	221718	0.22	0.1945	5	40	yes
Manihot foetida	0.8562	0.0458	58092	274875	21.13	0.3938	5	19	no
Manihot michaelis	0.9607	0.0193	225	373054	0.06	0.0889	5	31	yes
Manihot oaxacana	0.971	0.0207	0	92248	0.00	0.0653	10	116	yes
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot pauciflora	0.9589	0.0304	0	102657	0.00	0.1486	10	52	yes
Manihot pringlei	0.9313	0.043	51	165602	0.03	0.2661	10	53	yes
Manihot rhomboidea	0.8749	0.0475	50	575194	0.01	0.1976	10	95	yes
Manihot rhomboidea subsp. *microcarpa*	0.9052	0.0351	1037	414337	0.25	0.204	10	73	yes
Manihot rubricaulis	0.887	0.0451	1472	251418	0.59	0.3605	10	117	yes
Manihot rubricaulis subsp. *isoloba*	0.8496	0.0822	23297	227739	10.23	0.3115	5	29	no
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot subspicata	0.8628	0.0926	6873	102269	6.72	0.4347	5	24	yes
Manihot tomatophylla	0.9447	0.0338	9	102619	0.01	0.0994	5	39	yes
Manihot walkerae	0.8653	0.0637	12186	138218	8.82	0.5589	5	12	yes
Manilkara chicle	0.9772	0.0084	1018	115649	0.88	0.1679	5	39	yes
Manilkara zapota	0.9066	0.0128	0	432892	0.00	0.2636	10	466	yes
Opuntia atropes	0.9353	0.0281	38	393659	0.01	0.1736	10	53	yes
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	no
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	no
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	no
Opuntia ficus-indica	0.8751	0.05	1974	242135	0.82	0.3536	10	123	yes
Opuntia hyptiacantha	0.9575	0.0163	40	189225	0.02	0.1441	10	136	yes
Opuntia lasiacantha	0.95	0.0176	989	210410	0.47	0.1868	10	140	yes
Opuntia spinulifera	0.9608	0.0326	1795	83664	2.15	0.1854	5	25	yes
Opuntia streptacantha	0.9306	0.0215	206	224765	0.09	0.2362	10	254	yes
Opuntia undulata	0.8667	0.0274	47565	361578	13.15	0.4038	5	17	no
Opuntia velutina	0.9145	0.0347	1	494324	0.00	0.1896	10	67	yes
Opuntia wilcoxii	0.9197	0.0431	1170	205534	0.57	0.27	5	30	yes
Pachyrhizus erosus	0.9021	0.018	225	2498664	0.01	0.3397	10	245	yes
Pachyrhizus ferrugineus	0.9321	0.0308	18753	2480136	0.76	0.2179	5	25	yes
Persea americana	0.8783	0.0211	18	2498871	0.00	0.2861	10	634	yes
Persea schiedeana	0.9758	0.012	0	2498889	0.00	0.073	10	62	yes
Phaseolus acutifolius	0.792	0.0356	562	2498327	0.02	0.3784	10	452	yes
Phaseolus acutifolius var. *acutifolius*	0.811	0.0399	35	596402	0.01	0.3168	10	346	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Phaseolus acutifolius var. *tenuifolius*	0.8566	0.0524	41	418121	0.01	0.3123	10	103	yes
Phaseolus albescens	0.9674	0.0169	13434	2485455	0.54	0.2015	5	18	yes
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	no
Phaseolus carteri	0.9032	0.0642	4948	2493941	0.20	0.5707	5	11	yes
Phaseolus coccineus	0.8544	0.0114	0	474875	0.00	0.2785	10	1843	yes
Phaseolus coccineus subsp. *coccineus*	0.8983	0.0219	0	420777	0.00	0.232	10	328	yes
Phaseolus dumosus	0.9328	0.0318	306	193697	0.16	0.1651	10	148	yes
Phaseolus filiformis	0.9288	0.0161	128	211682	0.06	0.2679	10	564	yes
Phaseolus maculatus subsp. *ritensis*	0.9124	0.0266	2813	337313	0.83	0.2582	10	128	yes
Phaseolus parvifolius	0.8658	0.0558	0	307180	0.00	0.4156	10	83	yes
Phaseolus vulgaris	0.7753	0.0119	0	593811	0.00	0.4049	10	2846	yes
Phaseolus vulgaris var. *aborigineus*	0.8781	0.0605	19862	352462	5.64	0.2518	5	25	yes
Physalis acutifolia	0.8925	0.0433	1804	356748	0.51	0.2654	10	94	yes
Physalis ampla	0.7404	0.111	169	677862	0.02	0.4907	5	15	yes
Physalis angulata	0.7982	0.0797	3	408418	0.00	0.4597	10	82	yes
Physalis crassifolia	0.9088	0.028	1136	452073	0.25	0.225	10	67	yes
Physalis lagascae	0.9056	0.0371	144	274904	0.05	0.2228	10	92	yes
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	no
Physalis philadelphica	0.8453	0.0286	1	478791	0.00	0.3308	10	371	yes
Physalis sulphurea	0.9622	0.026	4	123681	0.00	0.1916	10	55	yes
Pinus ayacahuite	0.9235	0.0373	1310	315245	0.42	0.1459	5	48	yes
Pinus cembroides	0.8889	0.0217	56	428651	0.01	0.2562	10	433	yes
Pinus maximartinezii	0.969	0.0167	1119	22629	4.94	0.5926	5	14	yes
Pinus monophylla	0.9962	0.0018	1534	15482	9.91	0.2394	5	20	yes
Pinus quadrifolia	0.9974	0.0006	2	12341	0.02	0.2805	5	19	yes
Pithecellobium dulce	0.8323	0.0117	0	632189	0.00	0.3425	10	1835	yes
Porophyllum gracile	0.9423	0.0263	0	200166	0.00	0.2316	10	173	yes
Porophyllum linaria	0.9253	0.0274	1559	243796	0.64	0.2831	10	105	yes
Porophyllum ruderale	0.8263	0.0373	1577	474588	0.33	0.386	10	210	yes
Porophyllum scoparium	0.9167	0.0375	10	248714	0.00	0.2729	10	83	yes
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	no
Portulaca halimoides	0.7187	-0.5786	NA	NA	NA	0.4615	5	10	no
Portulaca umbraticola	0.8537	0.0797	34151	361534	9.45	0.4139	5	18	yes
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	no
Pouteria campechiana	0.9215	0.021	180	383168	0.05	0.2006	10	184	yes
Pouteria durlandii	0.9726	0.0143	1	157023	0.00	0.1004	5	41	yes
Pouteria glomerata	0.9709	0.0116	9390	168435	5.57	0.2673	5	18	yes
Pouteria reticulata	0.9715	0.0104	546	221395	0.25	0.1225	10	84	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	3	no
Pouteria sapota	0.93	0.0272	70	461893	0.02	0.1343	5	46	yes
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium guajava	0.8404	0.0273	178	620243	0.03	0.3366	10	319	yes
Psidium guineense	0.9401	0.0315	0	221324	0.00	0.1579	10	75	yes
Psidium oligospermum	0.8794	0.0324	1293	350766	0.37	0.3675	10	180	yes
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	no
Salvia axillaris	0.9425	0.0316	105	233508	0.04	0.2101	10	51	yes
Salvia candicans	0.9306	0.0502	80064	29447	271.89	0.3077	5	19	no
Salvia carnea	0.9276	0.0408	157	161436	0.10	0.2439	10	61	yes
Salvia cinnabarina	0.9536	0.02	161	266400	0.06	0.0868	10	84	yes
Salvia coccinea	0.9068	0.0169	92	341010	0.03	0.3077	10	402	yes
Salvia columbariae	0.9749	0.0071	1	178053	0.00	0.1219	5	37	yes
Salvia elegans	0.9245	0.0138	36	282509	0.01	0.2126	10	567	yes
Salvia fluviatilis	0.8045	0.0746	5	407803	0.00	0.5391	5	10	yes
Salvia helianthemifolia	0.9664	0.0155	1	211334	0.00	0.1868	5	36	yes
Salvia hispanica	0.8896	0.0397	421	294630	0.14	0.3088	10	127	yes
Salvia laevis	0.9764	0.0082	1543	116870	1.32	0.1585	10	128	yes
Salvia lasiantha	0.9596	0.0339	765	85264	0.90	0.2768	5	20	yes
Salvia lasiocephala	0.8669	0.0525	1962	329204	0.60	0.2713	10	107	yes
Salvia leucantha	0.876	0.0483	18654	420677	4.43	0.3753	5	18	yes
Salvia longispicata	0.8689	0.0688	36760	228102	16.12	0.3428	5	28	no
Salvia longistyla	0.9789	0.0094	663	126175	0.53	0.2561	5	20	yes
Salvia mexicana	0.9138	0.0258	2	417523	0.00	0.1716	10	186	yes
Salvia microphylla	0.8997	0.0163	137	352714	0.04	0.2722	10	548	yes
Salvia misella	0.8615	0.0403	1859	368742	0.50	0.3393	10	113	yes
Salvia mocinoi	0.9426	0.0238	204	269872	0.08	0.1301	10	105	yes
Salvia oaxacana	0.9346	0.0494	43761	51931	84.27	0.3269	5	19	no
Salvia occidentalis	0.8915	0.0314	391	430273	0.09	0.2083	10	211	yes
Salvia patens	0.9421	0.0314	81	280129	0.03	0.1235	5	45	yes
Salvia polystachia	0.9324	0.0293	878	289854	0.30	0.1607	10	108	yes
Salvia prunelloides	0.9175	0.0339	120	253236	0.05	0.2792	10	53	yes
Salvia purpurea	0.9317	0.0139	141	304827	0.05	0.2006	10	402	yes
Salvia recurva	0.9698	0.0183	7940	36969	21.48	0.2969	5	13	no
Salvia regla	0.8749	0.0449	56	453482	0.01	0.3088	10	80	yes
Salvia sanctae-luciae	0.998	0.0007	2	6112	0.03	0.6381	5	13	yes
Salvia setulosa	0.9009	0.0398	5566	230204	2.42	0.4741	5	13	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	no
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	no
Salvia thyrsiflora	0.9678	0.0142	63	184792	0.03	0.093	10	131	yes
Salvia tiliifolia	0.8566	0.0253	684	476584	0.14	0.344	10	340	yes
Sechium chinantlense	0.9767	0.0159	2033	51225	3.97	0.268	5	22	yes
Sechium compositum	0.9818	0.0142	37	30644	0.12	0.1476	5	32	yes
Sechium edule subsp. *sylvestre*	0.9492	0.0231	3599	127316	2.83	0.1186	5	32	yes
Sechium hintonii	0.942	0.0197	4602	208460	2.21	0.4117	5	15	yes
Simmondsia chinensis	0.9446	0.021	545	245048	0.22	0.1589	10	212	yes
Solanum bulbocastanum	0.92	0.0171	349	324180	0.11	0.2136	10	442	yes
Solanum cardiophyllum	0.8388	0.0505	1116	296273	0.38	0.3423	10	241	yes
Solanum clarum	0.9833	0.0116	327	124762	0.26	0.0722	5	12	yes
Solanum demissum	0.8768	0.0258	618	208385	0.30	0.2177	10	683	yes
Solanum ehrenbergii	0.9144	0.0338	407	236945	0.17	0.2933	10	179	yes
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	no
Solanum hintonii	0.8281	0.0787	36218	312133	11.60	0.3296	5	22	no
Solanum hjertingii	0.849	0.0766	1501	401868	0.37	0.2068	10	81	yes
Solanum hougasii	0.9552	0.0248	0	172285	0.00	0.1373	10	86	yes
Solanum iopetalum	0.9161	0.0239	60	279275	0.02	0.1819	10	379	yes
Solanum morelliforme	0.9339	0.0326	0	143225	0.00	0.2259	10	127	yes
Solanum oxycarpum	0.9285	0.0355	10	166015	0.01	0.1939	10	81	yes
Solanum pinnatisectum	0.9181	0.0476	1177	95760	1.23	0.1796	10	108	yes
Solanum polyadenium	0.9013	0.0457	1912	228830	0.84	0.2484	10	116	yes
Solanum schenckii	0.924	0.0374	549	222073	0.25	0.216	10	58	yes
Solanum stenophyllidium	0.9025	0.0359	927	336972	0.28	0.2203	10	162	yes
Solanum stoloniferum	0.85	0.0162	178	510321	0.03	0.3197	10	1211	yes
Solanum tarnii	0.9275	0.0538	692	82345	0.84	0.3417	5	38	yes
Solanum trifidum	0.9468	0.0312	60	158937	0.04	0.1249	10	129	yes
Solanum verrucosum	0.8937	0.0257	126	279661	0.05	0.2369	10	523	yes
Spondias mombin	0.9012	0.0222	0	2498889	0.00	0.3437	10	227	yes
Spondias purpurea	0.8782	0.028	680	2498209	0.03	0.3023	10	206	yes
Stenocereus alamosensis	0.9354	0.0349	46	2498843	0.00	0.1455	5	46	yes
Stenocereus beneckei	0.9904	0.0056	0	2498889	0.00	0.0842	5	25	yes
Stenocereus chrysocarpus	0.9537	0.0308	0	2498889	0.00	0.3497	5	17	yes
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	no
Stenocereus eruca	0.9474	0.0334	4188	2494701	0.17	0.1438	5	26	yes
Stenocereus fricii	0.9865	0.0058	20030	2478859	0.81	0.2047	5	13	yes
Stenocereus griseus	0.9105	0.0526	0	2498889	0.00	0.2013	10	51	yes

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Stenocereus gummosus	0.9731	0.0097	0	2498889	0.00	0.1032	10	84	yes
Stenocereus kerberi	0.9668	0.0208	6927	2491962	0.28	0.1701	5	12	yes
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	no
Stenocereus montanus	0.9256	0.0342	10356	2488533	0.42	0.2767	5	24	yes
Stenocereus pruinosus	0.9274	0.025	2018	2496871	0.08	0.1844	10	110	yes
Stenocereus queretaroensis	0.949	0.021	0	2498889	0.00	0.1355	10	66	yes
Stenocereus quevedonis	0.949	0.021	0	2498889	0.00	0.1355	5	16	yes
Stenocereus standleyi	0.9212	0.0246	15599	2483290	0.63	0.3306	5	18	yes
Stenocereus stellatus	0.9606	0.0235	316	2498573	0.01	0.1312	10	64	yes
Stenocereus thurberi	0.9463	0.0172	1011	2497878	0.04	0.1969	10	96	yes
Stenocereus treleasei	0.99	0.0062	2046	2496843	0.08	0.2109	5	19	yes
Tagetes erecta	0.8504	0.0164	654879	1844010	35.51	0.3143	10	801	no
Tagetes filifolia	0.8843	0.0338	406250	2092639	19.41	0.2449	10	173	no
Tagetes foetidissima	0.9394	0.0274	303000	2195889	13.80	0.1077	10	102	no
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	no
Tagetes lucida	0.8696	0.0202	474735	2024154	23.45	0.3308	10	468	no
Tagetes micrantha	0.9045	0.021	743	405040	0.18	0.2671	10	259	yes
Tagetes pringlei	0.9451	0.021	375035	2123854	17.66	0.1487	10	63	no
Tagetes stenophylla	0.9725	0.0161	198422	2300467	8.63	0.0976	10	51	yes
Tagetes subulata	0.9046	0.0194	446110	2052779	21.73	0.2422	10	248	no
Theobroma cacao	0.9316	0.0348	502370	1996519	25.16	0.0844	10	80	no
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum bravum	0.9771	0.0137	163846	2335043	7.02	0.2333	5	18	yes
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	no
Tripsacum dactyloides var. *hispidum*	0.9218	0.0298	0	344598	0.00	0.232	10	186	yes
Tripsacum dactyloides var. *mexicanum*	0.9033	0.0422	23452	296840	7.90	0.2672	5	28	yes
Tripsacum intermedium	0.8459	0.0678	231997	2266892	10.23	0.4524	5	13	no
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	no
Tripsacum lanceolatum	0.8723	0.0337	432634	2066255	20.94	0.313	10	377	no
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum laxum	0.8494	0.0485	437535	2061354	21.23	0.4272	5	13	no
Tripsacum maizar	0.9186	0.0418	239734	2259155	10.61	0.3466	5	11	no
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum pilosum	0.8577	0.0592	352281	2146608	16.41	0.2578	10	55	no
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum zopilotense	0.9681	0.0058	114160	2384729	4.79	0.329	5	18	yes
Vanilla planifolia	0.8832	0.0549	483869	2015020	24.01	0.2158	10	73	no
Vanilla pompona	0.8844	0.0485	302817	2196072	13.79	0.3416	5	26	no

Supplementary Table 4.2a. Validation criteria of the species distribution models of Mexican crop wild relatives under current climatic conditions (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Zea diploperennis	0.9818	0.0106	0	170324	0.00	0.0505	10	89	yes
Zea luxurians	0.9995	0.0002	203	1243	16.33	0.2071	5	12	no
Zea mays subsp. *mexicana*	0.9437	0.0088	0	199165	0.00	0.2172	10	792	yes
Zea mays subsp. *parviglumis*	0.9573	0.0052	107	132039	0.08	0.2337	10	848	yes
Zea perennis	0.9826	0.0122	172	74364	0.23	0.1178	5	47	yes

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Agave aktites	0.9928	-0.3982	NA	NA	NA	0.4774	5	13	no
Agave angustifolia	0.8631	0.0216	47	452548	0.01	0.3299	10	546	yes
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	no
Agave atrovirens	0.9643	0.0099	1456	156669	0.93	0.2302	5	21	yes
Agave congesta	0.983	0.0094	6884	13211	52.11	0.3818	5	11	no
Agave datylio	0.9852	0.0068	1015	96539	1.05	0.2147	5	17	yes
Agave fourcroydes	0.9806	0.0131	945	75869	1.25	0.1038	5	38	yes
Agave hiemiflora	0.9893	0.008	309	71647	0.43	0.081	5	21	yes
Agave hurteri	0.9209	0.018	4256	186144	2.29	0.4596	5	11	yes
Agave karwinskii	0.973	0.0168	439	128616	0.34	0.065	10	52	yes
Agave kewensis	0.989	0.003	27	60811	0.04	0.3746	5	14	yes
Agave macroacantha	0.9793	0.0133	242	23349	1.04	0.175	5	32	yes
Agave macroculmis	0.9238	0.0387	3595	221665	1.62	0.2435	5	23	yes
Agave mapisaga	0.8519	0.0679	76902	541347	14.21	0.2696	5	14	no
Agave rhodacantha	0.9097	0.0508	2668	291660	0.91	0.3017	10	51	yes
Agave seemanniana	0.9725	0.0139	11	113144	0.01	0.2039	10	51	yes
Agave sisalana	0.8383	0.069	22650	469388	4.83	0.4217	5	14	yes
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	no
Agave tequilana	0.9752	0.0117	1075	83119	1.29	0.3835	5	22	yes
Amaranthus australis	0.9377	0.027	2353	345754	0.68	0.0745	5	31	yes
Amaranthus blitoides	0.622	0.0767	NA	NA	NA	0.4456	5	14	no
Amaranthus caudatus	0.8537	0.0878	5411	186862	2.90	0.1721	5	22	yes
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	no
Amaranthus cruentus	0.8837	0.0736	1457	349644	0.42	0.2074	10	66	yes
Amaranthus dubius	0.9219	0.0328	453	287750	0.16	0.2416	10	55	yes
Amaranthus fimbriatus	0.9473	0.0255	0	360410	0.00	0.0955	10	64	yes
Amaranthus greggii	0.9796	0.0099	75	82708	0.09	0.1535	10	116	yes
Amaranthus hybridus	0.864	0.0197	164	526418	0.03	0.323	10	667	yes
Amaranthus hypochondriacus	0.9194	0.0454	190	179732	0.11	0.1952	10	98	yes
Amaranthus palmeri	0.7902	0.0494	440	539118	0.08	0.3831	10	217	yes
Amaranthus polygonoides	0.6556	0.0945	NA	NA	NA	0.449	5	36	no
Amaranthus powellii	0.91	0.0348	64	361615	0.02	0.1788	10	94	yes
Amaranthus scariosus	0.9147	0.0387	4228	214229	1.97	0.2165	5	48	yes
Amaranthus spinosus	0.8859	0.0178	4	538924	0.00	0.3087	10	477	yes
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	no
Amaranthus torreyi	0.8779	0.0621	1	491259	0.00	0.1293	10	67	yes
Annona cherimola	0.9179	0.0198	34	308925	0.01	0.2228	10	340	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Annona glabra	0.9608	0.0118	75	169217	0.04	0.2233	10	184	yes
Annona globiflora	0.9558	0.0104	1	141457	0.00	0.1988	10	374	yes
Annona longiflora	0.9545	0.0211	58	240248	0.02	0.1615	10	69	yes
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	no
Annona macroprophyllata	0.931	0.0308	68	275572	0.02	0.2447	10	65	yes
Annona muricata	0.9106	0.0225	1832	321239	0.57	0.3365	10	131	yes
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	no
Annona purpurea	0.9506	0.0188	214	261109	0.08	0.2644	10	109	yes
Annona reticulata	0.896	0.0143	227	464983	0.05	0.2897	10	516	yes
Annona liebmanniana	0.9576	0.0221	129	215000	0.06	0.141	5	24	yes
Annona squamosa	0.9369	0.0153	7	279029	0.00	0.2307	10	291	yes
Bixa orellana	0.9233	0.0134	278	351872	0.08	0.3028	10	273	yes
Byrsonima crassifolia	0.8923	0.0144	62	590762	0.01	0.2457	10	465	yes
Capsicum annuum var. *glabriusculum*	0.8109	0.04	8	484411	0.00	0.3858	10	266	yes
Capsicum frutescens	0.8966	0.0162	736	404057	0.18	0.3498	10	388	yes
Carica papaya	0.9027	0.0182	24	448148	0.01	0.2886	10	307	yes
Carya illinoinensis	0.8195	0.0485	2074	453397	0.46	0.3721	10	141	yes
Carya myristiciformis	0.9382	0.0356	15289	79707	19.18	0.3342	5	26	no
Carya ovata	0.9679	0.0136	0	219872	0.00	0.0776	10	101	yes
Carya palmeri	0.9201	0.0443	7673	188664	4.07	0.1973	5	42	yes
Crataegus mexicana	0.9426	0.0172	14	166240	0.01	0.2459	10	251	yes
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	no
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	no
Cucurbita argyrosperma	0.8206	0.0371	1167	585884	0.20	0.3464	10	225	yes
Cucurbita argyrosperma subsp. *sororia*	0.8589	0.0235	15	498945	0.00	0.3124	10	465	yes
Cucurbita cordata	0.9529	0.0204	752	137979	0.55	0.2298	10	94	yes
Cucurbita digitata	0.9178	0.0289	1501	265298	0.57	0.2558	10	92	yes
Cucurbita foetidissima	0.8086	0.0392	1411	464536	0.30	0.4193	10	242	yes
Cucurbita lundelliana	0.9595	0.0168	0	256781	0.00	0.1202	10	77	yes
Cucurbita okeechobeensis subsp. *martinezii*	0.9319	0.0366	1208	143310	0.84	0.1729	10	116	yes
Cucurbita palmata	0.9582	0.0146	4476	265206	1.69	0.1037	5	37	yes
Cucurbita pedatifolia	0.9325	0.0253	225	312031	0.07	0.2509	10	85	yes
Cucurbita pepo subsp. *fraterna*	0.9789	0.0143	1	116487	0.00	0.3309	5	15	yes
Cucurbita radicans	0.9544	0.015	851	272683	0.31	0.1669	10	83	yes
Diospyros conzattii	0.9283	0.0382	9965	82975	12.01	0.2276	5	31	no
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	no
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	no

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Gossypium aridum	0.9314	0.0294	67	186787	0.04	0.1771	10	212	yes
Gossypium barbadense	0.8749	0.0531	0	481300	0.00	0.3031	10	80	yes
Gossypium gossypioides	0.9391	0.0411	2710	136975	1.98	0.113	5	45	yes
Gossypium hirsutum	0.8455	0.0193	0	522444	0.00	0.3273	10	931	yes
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	no
Gossypium thurberi	0.8957	0.0681	3487	261294	1.33	0.1099	5	39	yes
Helianthus annuus	0.7302	0.0631	2829	404438	0.70	0.4739	10	156	yes
Helianthus californicus	0.9907	0.0024	1094	32847	3.33	0.4554	5	12	yes
Helianthus ciliaris	0.7919	0.0648	0	554211	0.00	0.4463	5	17	yes
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	no
Helianthus laciniatus	0.8877	0.0325	1123	349131	0.32	0.3574	10	102	yes
Helianthus niveus	0.9422	0.033	446	247306	0.18	0.1021	10	107	yes
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	no
Hylocereus ocamponis	0.9173	0.0237	1741	321405	0.54	0.3173	5	49	yes
Ipomoea batatas	0.8773	0.0328	264	310047	0.09	0.4069	10	222	yes
Ipomoea leucantha	0.7741	0.1032	443	506859	0.09	0.5141	5	13	yes
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	no
Ipomoea tiliacea	0.8897	0.0408	532	368147	0.14	0.3276	10	184	yes
Ipomoea trifida	0.8841	0.027	147	414014	0.04	0.2785	10	467	yes
Ipomoea triloba	0.8486	0.0374	1828	465124	0.39	0.3554	10	184	yes
Jacaratia dolichaula	0.9749	0.014	0	142511	0.00	0.0678	10	111	yes
Jacaratia mexicana	0.9431	0.0179	2	259403	0.00	0.163	10	252	yes
Jarilla caudata	0.9655	0.0179	1011	156645	0.65	0.3546	5	21	yes
Jarilla heterophylla	0.922	0.0503	126	185494	0.07	0.281	10	55	yes
Jatropha andrieuxii	0.9739	0.0138	11	151070	0.01	0.2527	5	17	yes
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	no
Jatropha mcvaughii	0.9288	0.0233	2942	317084	0.93	0.3042	5	12	yes
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	no
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	no
Leucaena confertiflora	0.9789	0.0121	36	180635	0.02	0.119	10	50	yes
Leucaena diversifolia	0.9357	0.0121	284	250835	0.11	0.1968	10	443	yes
Leucaena esculenta	0.9102	0.017	368	272255	0.14	0.3058	10	489	yes
Leucaena lanceolata	0.9243	0.0166	0	326325	0.00	0.1816	10	496	yes
Leucaena leucocephala	0.8573	0.0164	0	498044	0.00	0.3266	10	935	yes
Manihot aesculifolia	0.8722	0.0324	405	361414	0.11	0.3653	10	218	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Manihot angustiloba	0.8131	0.06	322	380245	0.08	0.3801	10	120	yes
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	no
Manihot caudata	0.8153	0.0771	2075	382228	0.54	0.2865	10	106	yes
Manihot chlorosticta	0.9412	0.0254	80	188701	0.04	0.1356	10	221	yes
Manihot crassisepala	0.8506	0.0927	11210	227831	4.92	0.4338	5	31	yes
Manihot davisiae	0.9096	0.0513	1456	210624	0.69	0.1963	5	40	yes
Manihot foetida	0.8845	0.0678	1858	395053	0.47	0.3523	5	19	yes
Manihot michaelis	0.9616	0.0207	72	364314	0.02	0.0801	5	31	yes
Manihot oaxacana	0.9707	0.0188	2	103314	0.00	0.0609	10	116	yes
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot pauciflora	0.9596	0.0238	0	66861	0.00	0.1984	10	52	yes
Manihot pringlei	0.9334	0.0379	101	120718	0.08	0.3172	10	53	yes
Manihot rhomboidea	0.863	0.041	160	525583	0.03	0.2241	10	95	yes
Manihot rhomboidea subsp. *microcarpa*	0.9135	0.0326	537	477151	0.11	0.1516	10	73	yes
Manihot rubricaulis	0.8933	0.0394	1205	267207	0.45	0.35	10	117	yes
Manihot rubricaulis subsp. *isoloba*	0.8654	0.0925	3695	263956	1.40	0.2817	5	29	yes
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot subspicata	0.8957	0.0608	6233	106563	5.85	0.4333	5	24	yes
Manihot tomatophylla	0.9369	0.0393	214	77192	0.28	0.1543	5	39	yes
Manihot walkerae	0.9053	0.0424	8827	137021	6.44	0.5559	5	12	yes
Manilkara chicle	0.9738	0.0117	257	118030	0.22	0.1907	5	39	yes
Manilkara zapota	0.9104	0.0127	0	420574	0.00	0.2678	10	466	yes
Opuntia atropes	0.9362	0.0309	16	429087	0.00	0.1174	10	53	yes
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	no
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	no
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	no
Opuntia ficus-indica	0.8617	0.0568	1466	300907	0.49	0.3001	10	123	yes
Opuntia hyptiacantha	0.9562	0.0186	414	174670	0.24	0.1602	10	136	yes
Opuntia lasiacantha	0.9468	0.0166	1987	200600	0.99	0.2057	10	140	yes
Opuntia spinulifera	0.9617	0.0302	2224	94105	2.36	0.1874	5	25	yes
Opuntia streptacantha	0.9283	0.0214	47	228031	0.02	0.2263	10	254	yes
Opuntia undulata	0.8891	0.0356	2669	448746	0.59	0.3871	5	17	yes
Opuntia velutina	0.9142	0.032	56	412454	0.01	0.2495	10	67	yes
Opuntia wilcoxii	0.9177	0.0474	2895	156732	1.85	0.3279	5	30	yes
Pachyrhizus erosus	0.8996	0.018	290	398191	0.07	0.3251	10	245	yes
Pachyrhizus ferrugineus	0.9221	0.0362	9663	358942	2.69	0.2048	5	25	yes
Persea americana	0.8791	0.0211	127	466935	0.03	0.2739	10	634	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Persea schiedeana	0.975	0.0118	0	236277	0.00	0.0541	10	62	yes
Phaseolus acutifolius	0.7838	0.0341	354	639617	0.06	0.3569	10	452	yes
Phaseolus acutifolius var. *acutifolius*	0.8069	0.0401	1103	502066	0.22	0.3595	10	346	yes
Phaseolus acutifolius var. *tenuifolius*	0.8576	0.047	358	448401	0.08	0.2942	10	103	yes
Phaseolus albescens	0.9757	0.011	5780	140296	4.12	0.2204	5	18	yes
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	no
Phaseolus carteri	0.9061	0.0574	3176	46633	6.81	0.5653	5	11	yes
Phaseolus coccineus	0.8554	0.0113	5	500968	0.00	0.2642	10	1843	yes
Phaseolus coccineus subsp. *coccineus*	0.8955	0.0219	0	386053	0.00	0.2567	10	328	yes
Phaseolus dumosus	0.9224	0.0372	325	209180	0.16	0.145	10	148	yes
Phaseolus filiformis	0.9322	0.0152	0	223386	0.00	0.2261	10	564	yes
Phaseolus maculatus subsp. *ritensis*	0.9075	0.0276	2519	311073	0.81	0.296	10	128	yes
Phaseolus parvifolius	0.8681	0.0547	1	416218	0.00	0.3257	10	83	yes
Phaseolus vulgaris	0.7785	0.0118	4	591072	0.00	0.4002	10	2846	yes
Phaseolus vulgaris var. *aborigineus*	0.8646	0.0747	1827	504280	0.36	0.1895	5	25	yes
Physalis acutifolia	0.8948	0.0438	842	326783	0.26	0.2719	10	94	yes
Physalis ampla	0.7276	0.1048	9	668053	0.00	0.4868	5	15	yes
Physalis angulata	0.7905	0.0723	0	408888	0.00	0.4413	10	82	yes
Physalis crassifolia	0.9167	0.0259	106	445623	0.02	0.2436	10	67	yes
Physalis lagascae	0.8997	0.0424	438	260903	0.17	0.2315	10	92	yes
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	no
Physalis philadelphica	0.8401	0.0282	881	524499	0.17	0.3055	10	371	yes
Physalis sulphurea	0.955	0.0313	3	123121	0.00	0.2364	10	55	yes
Pinus ayacahuite	0.9275	0.0367	1019	209440	0.49	0.2343	5	48	yes
Pinus cembroides	0.8913	0.0228	68	410405	0.02	0.2606	10	433	yes
Pinus maximartinezii	0.9845	0.0085	738	26978	2.74	0.6359	5	14	yes
Pinus monophylla	0.9943	0.0024	1618	21664	7.47	0.2092	5	20	yes
Pinus quadrifolia	0.9973	0.001	96	11016	0.87	0.2365	5	19	yes
Pithecellobium dulce	0.835	0.0115	0	653957	0.00	0.3236	10	1835	yes
Porophyllum gracile	0.945	0.025	0	200603	0.00	0.2268	10	173	yes
Porophyllum linaria	0.927	0.0258	1645	290239	0.57	0.2518	10	105	yes
Porophyllum ruderale	0.8331	0.0385	769	468352	0.16	0.3917	10	210	yes
Porophyllum scoparium	0.9154	0.0377	2021	267902	0.75	0.2658	10	83	yes
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	no
Portulaca halimoides	0.7422	-0.5512	NA	NA	NA	0.4855	5	10	no
Portulaca umbraticola	0.864	0.0642	78625	333378	23.58	0.4037	5	18	no
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	no

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Pouteria campechiana	0.922	0.022	211	378743	0.06	0.2334	10	184	yes
Pouteria durlandii	0.9728	0.0113	0	138064	0.00	0.1269	5	41	yes
Pouteria glomerata	0.9777	0.0111	370	191712	0.19	0.2383	5	18	yes
Pouteria reticulata	0.9743	0.0072	0	488552	0.00	0.1919	10	84	yes
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	3	no
Pouteria sapota	0.9248	0.0249	3073	390341	0.79	0.2079	5	46	yes
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium guajava	0.833	0.0287	11	563736	0.00	0.3649	10	319	yes
Psidium guineense	0.9493	0.0267	0	271400	0.00	0.1189	10	75	yes
Psidium oligospermum	0.887	0.0294	741	388644	0.19	0.3126	10	180	yes
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	no
Salvia axillaris	0.9437	0.0281	0	228601	0.00	0.2214	10	51	yes
Salvia candicans	0.9388	-0.1608	NA	NA	NA	0.1759	5	19	no
Salvia carnea	0.9241	0.0405	121	174520	0.07	0.2233	10	61	yes
Salvia cinnabarina	0.9561	0.0198	0	234367	0.00	0.1124	10	84	yes
Salvia coccinea	0.9137	0.0164	68	325977	0.02	0.2928	10	402	yes
Salvia columbariae	0.9772	0.0091	198	161541	0.12	0.1481	5	37	yes
Salvia elegans	0.925	0.0132	0	297396	0.00	0.2047	10	567	yes
Salvia fluviatilis	0.8172	0.0668	0	414586	0.00	0.5287	5	10	yes
Salvia helianthemifolia	0.9661	0.0152	98	234779	0.04	0.1421	5	36	yes
Salvia hispanica	0.8806	0.0431	1878	297197	0.63	0.308	10	127	yes
Salvia laevis	0.9768	0.0069	309	121288	0.25	0.1449	10	128	yes
Salvia lasiantha	0.9068	0.0692	644	219626	0.29	0.1384	5	20	yes
Salvia lasiocephala	0.8675	0.0539	2984	307765	0.97	0.2827	10	107	yes
Salvia leucantha	0.8703	0.0637	26933	379474	7.10	0.391	5	18	yes
Salvia longispicata	0.9018	0.0434	14938	249445	5.99	0.3784	5	28	yes
Salvia longistyla	0.9767	0.0108	725	134737	0.54	0.2403	5	20	yes
Salvia mexicana	0.9086	0.0268	361	449794	0.08	0.1735	10	186	yes
Salvia microphylla	0.8984	0.0172	272	347356	0.08	0.2754	10	548	yes
Salvia misella	0.8548	0.0422	2154	453472	0.48	0.2915	10	113	yes
Salvia mocinoi	0.9466	0.0184	222	317906	0.07	0.0956	10	105	yes
Salvia oaxacana	0.9357	0.0494	33520	56971	58.84	0.3415	5	19	no
Salvia occidentalis	0.8796	0.0334	210	493999	0.04	0.1928	10	211	yes
Salvia patens	0.9286	0.0337	6131	293487	2.09	0.1348	5	45	yes
Salvia polystachia	0.9333	0.0253	1125	263777	0.43	0.1737	10	108	yes
Salvia prunelloides	0.9176	0.0338	162	240884	0.07	0.2993	10	53	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Salvia purpurea	0.9354	0.0129	44	348475	0.01	0.1693	10	402	yes
Salvia recurva	0.9675	0.0233	0	72202	0.00	0.2348	5	13	yes
Salvia regla	0.8805	0.0406	1206	496428	0.24	0.2881	10	80	yes
Salvia sanctae-luciae	0.9974	0.0008	2348	2493773	0.09	0.4453	5	13	yes
Salvia setulosa	0.9061	0.0485	1741	2494380	0.07	0.403	5	13	yes
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	no
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	no
Salvia thyrsiflora	0.964	0.014	97	2496024	0.00	0.086	10	131	yes
Salvia tiliifolia	0.8604	0.0256	435	2495686	0.02	0.3256	10	340	yes
Sechium chinantlense	0.9799	0.0128	1256	2494865	0.05	0.1306	5	22	yes
Sechium compositum	0.9797	0.0158	708	2495413	0.03	0.125	5	32	yes
Sechium edule subsp. *sylvestre*	0.9574	0.0301	744	132582	0.56	0.1395	5	32	yes
Sechium hintonii	0.9593	0.0102	11664	191745	6.08	0.4044	5	15	yes
Simmondsia chinensis	0.9428	0.0206	335	2495786	0.01	0.159	10	212	yes
Solanum bulbocastanum	0.9191	0.0189	60	2496061	0.00	0.2236	10	442	yes
Solanum cardiophyllum	0.8399	0.0499	743	2495378	0.03	0.3184	10	241	yes
Solanum clarum	0.9848	0.0105	265	2495856	0.01	0.0799	5	12	yes
Solanum demissum	0.8762	0.0256	717	2495404	0.03	0.2084	10	683	yes
Solanum ehrenbergii	0.913	0.0325	391	2495730	0.02	0.2586	10	179	yes
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	no
Solanum hintonii	0.8396	0.0794	5487	230476	2.38	0.366	5	22	yes
Solanum hjertingii	0.8487	0.0738	1084	2495037	0.04	0.2674	10	81	yes
Solanum hougasii	0.9528	0.0267	394	2495727	0.02	0.0773	10	86	yes
Solanum iopetalum	0.9163	0.0252	586	2495535	0.02	0.2344	10	379	yes
Solanum morelliforme	0.9308	0.0341	355	2495766	0.01	0.1872	10	127	yes
Solanum oxycarpum	0.924	0.0423	277	144347	0.19	0.1987	10	81	yes
Solanum pinnatisectum	0.9154	0.0515	698	108428	0.64	0.1664	10	108	yes
Solanum polyadenium	0.8969	0.0522	2921	236546	1.23	0.215	10	116	yes
Solanum schenckii	0.9338	0.0355	0	275146	0.00	0.1918	10	58	yes
Solanum stenophyllidium	0.9091	0.0349	1758	332092	0.53	0.2068	10	162	yes
Solanum stoloniferum	0.852	0.0162	176	534620	0.03	0.2967	10	1211	yes
Solanum tarnii	0.9394	0.0467	358	90973	0.39	0.2656	5	38	yes
Solanum trifidum	0.9396	0.036	209	136584	0.15	0.1427	10	129	yes
Solanum verrucosum	0.8918	0.0253	148	296188	0.05	0.2164	10	523	yes
Spondias mombin	0.8924	0.0216	616	457336	0.13	0.285	10	227	yes
Spondias purpurea	0.8784	0.0288	477	476400	0.10	0.3114	10	206	yes
Stenocereus alamosensis	0.9308	0.0401	701	147508	0.48	0.2496	5	46	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Stenocereus beneckei	0.9874	0.0069	62	49555	0.13	0.2177	5	25	yes
Stenocereus chrysocarpus	0.9598	0.0233	1661	76838	2.16	0.384	5	17	yes
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	no
Stenocereus eruca	0.9435	0.0427	3038	127967	2.37	0.1316	5	26	yes
Stenocereus fricii	0.987	0.0062	2571	83682	3.07	0.205	5	13	yes
Stenocereus griseus	0.9053	0.0574	849	264469	0.32	0.2479	10	51	yes
Stenocereus gummosus	0.9716	0.0102	5	160019	0.00	0.1431	10	84	yes
Stenocereus kerberi	0.9618	0.025	8087	2488034	0.33	0.1776	5	12	yes
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	no
Stenocereus montanus	0.9186	0.0327	17049	2479072	0.69	0.2547	5	24	yes
Stenocereus pruinosus	0.9286	0.0262	1084	2495037	0.04	0.2365	10	110	yes
Stenocereus queretaroensis	0.9456	0.0231	0	2496121	0.00	0.1496	10	66	yes
Stenocereus quevedonis	0.977	0.0128	54	2496067	0.00	0.1649	5	16	yes
Stenocereus standleyi	0.9077	0.0137	13102	2483019	0.53	0.3453	5	18	yes
Stenocereus stellatus	0.9639	0.0218	0	2496121	0.00	0.1231	10	64	yes
Stenocereus thurberi	0.9377	0.0219	3659	2492462	0.15	0.2087	10	96	yes
Stenocereus treleasei	0.9892	0.0075	1540	2494581	0.06	0.2604	5	19	yes
Tagetes erecta	0.8505	0.0162	0	2496121	0.00	0.3181	10	801	yes
Tagetes filifolia	0.8768	0.0364	386	270685	0.14	0.2268	10	173	yes
Tagetes foetidissima	0.9423	0.0222	386	270685	0.14	0.1277	10	102	yes
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	no
Tagetes lucida	0.8703	0.02	5	531779	0.00	0.2939	10	468	yes
Tagetes micrantha	0.9107	0.0202	680	426389	0.16	0.247	10	259	yes
Tagetes pringlei	0.947	0.0203	0	315467	0.00	0.1791	10	63	yes
Tagetes stenophylla	0.9709	0.0153	0	110303	0.00	0.1977	10	51	yes
Tagetes subulata	0.9064	0.0192	10	435713	0.00	0.229	10	248	yes
Theobroma cacao	0.9322	0.0325	421	442753	0.10	0.1223	10	80	yes
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum bravum	0.9749	0.0133	10914	121868	8.96	0.2474	5	18	yes
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	no
Tripsacum dactyloides var. *hispidum*	0.9264	0.0312	666	252846	0.26	0.2116	10	186	yes
Tripsacum dactyloides var. *mexicanum*	0.9101	0.0383	17691	341294	5.18	0.2164	5	28	yes
Tripsacum intermedium	0.8163	0.0725	31634	252412	12.53	0.4481	5	13	no
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	no
Tripsacum lanceolatum	0.8753	0.0315	1183	404383	0.29	0.3277	10	377	yes
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum laxum	0.8186	0.0279	13996	534331	2.62	0.3933	5	13	yes

Supplementary Table 4.2b. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Tripsacum maizar	0.9225	0.0417	16107	219598	7.33	0.3697	5	11	yes
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum pilosum	0.9783	0.0132	0	144604	0.00	0.1189	10	55	yes
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum zopilotense	0.9798	0.0075	1501	134889	1.11	0.2191	5	18	yes
Vanilla planifolia	0.8935	0.0441	2802	476413	0.59	0.2384	10	73	yes
Vanilla pompona	0.8657	0.0658	6209	361889	1.72	0.3029	5	26	yes
Zea diploperennis	0.9806	0.0102	46	196421	0.02	0.0387	10	89	yes
Zea luxurians	0.9995	0.0002	155	1445	10.73	0.1754	5	12	no
Zea mays subsp. *mexicana*	0.9443	0.0086	5	218336	0.00	0.1901	10	792	yes
Zea mays subsp. *parviglumis*	0.9576	0.0051	2	118701	0.00	0.2638	10	848	yes
Zea perennis	0.9832	0.0122	102	48046	0.21	0.1513	5	47	yes

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Agave aktites	0.9938	-0.3986	NA	NA	NA	0.5063	5	13	no
Agave angustifolia	0.8677	0.0209	0	406947	0.00	0.3286	10	546	yes
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	no
Agave atrovirens	0.9625	0.0102	740	168365	0.44	0.2198	5	21	yes
Agave congesta	0.9469	0.0349	4439	7965	55.73	0.4695	5	11	no
Agave datylio	0.9868	0.0063	139	72898	0.19	0.2719	5	17	yes
Agave fourcroydes	0.9775	0.0163	780	77321	1.01	0.111	5	38	yes
Agave hiemiflora	0.9919	0.0059	20	53155	0.04	0.0873	5	21	yes
Agave hurteri	0.9119	0.0321	9954	201071	4.95	0.4181	5	11	yes
Agave karwinskii	0.9735	0.017	367	129892	0.28	0.0649	10	52	yes
Agave kewensis	0.9887	0.0048	25	130234	0.02	0.3463	5	14	yes
Agave macroacantha	0.9819	0.0117	645	17932	3.60	0.2393	5	32	yes
Agave macroculmis	0.9347	0.0358	2959	255618	1.16	0.2082	5	23	yes
Agave mapisaga	0.8502	0.0691	77920	530653	14.68	0.2708	5	14	no
Agave rhodacantha	0.9123	0.0479	3096	289055	1.07	0.2935	10	51	yes
Agave seemanniana	0.9706	0.0148	0	186842	0.00	0.1068	10	51	yes
Agave sisalana	0.8371	0.0765	35138	407594	8.62	0.4176	5	14	yes
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	no
Agave tequilana	0.9792	0.0086	281	74066	0.38	0.4263	5	22	yes
Amaranthus australis	0.9373	0.0272	2493	218789	1.14	0.1136	5	31	yes
Amaranthus blitoides	0.6635	0.0765	NA	NA	NA	0.4681	5	14	no
Amaranthus caudatus	0.8491	0.0903	2771	139056	1.99	0.1999	5	22	yes
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	no
Amaranthus cruentus	0.8865	0.0716	1599	279424	0.57	0.2489	10	66	yes
Amaranthus dubius	0.9172	0.0388	399	274561	0.15	0.2659	10	55	yes
Amaranthus fimbriatus	0.943	0.0262	0	327926	0.00	0.1248	10	64	yes
Amaranthus greggii	0.9788	0.0111	9	79758	0.01	0.1727	10	116	yes
Amaranthus hybridus	0.8634	0.0199	296	493964	0.06	0.3377	10	667	yes
Amaranthus hypochondriacus	0.9226	0.0427	208	166431	0.12	0.2016	10	98	yes
Amaranthus palmeri	0.7866	0.0501	452	496860	0.09	0.3941	10	217	yes
Amaranthus polygonoides	0.6706	0.0942	NA	NA	NA	0.4119	5	36	no
Amaranthus powellii	0.9026	0.038	829	346242	0.24	0.1914	10	94	yes
Amaranthus scariosus	0.9186	0.0404	1738	254566	0.68	0.1669	5	48	yes
Amaranthus spinosus	0.888	0.0178	79	480344	0.02	0.3278	10	477	yes
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	no
Amaranthus torreyi	0.8912	0.0552	0	453893	0.00	0.136	10	67	yes
Annona cherimola	0.9168	0.0197	15	357035	0.00	0.2028	10	340	yes

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Annona glabra	0.9588	0.0131	1	202105	0.00	0.2012	10	184	yes
Annona globiflora	0.9557	0.0106	109	154577	0.07	0.1573	10	374	yes
Annona longiflora	0.9549	0.0201	114	218939	0.05	0.1646	10	69	yes
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	no
Annona macroprophyllata	0.9317	0.0292	0	339755	0.00	0.2117	10	65	yes
Annona muricata	0.9152	0.0218	1416	325324	0.44	0.3176	10	131	yes
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	no
Annona purpurea	0.9494	0.0194	194	230973	0.08	0.2146	10	109	yes
Annona reticulata	0.8986	0.014	138	505792	0.03	0.258	10	516	yes
Annona liebmanniana	0.9556	0.0235	276	216957	0.13	0.15	5	24	yes
Annona squamosa	0.9356	0.0152	2	326946	0.00	0.1949	10	291	yes
Bixa orellana	0.926	0.0132	220	428359	0.05	0.2284	10	273	yes
Byrsonima crassifolia	0.8911	0.0144	40	555874	0.01	0.2888	10	465	yes
Capsicum annuum var. *glabriusculum*	0.8222	0.0383	456	508144	0.09	0.3729	10	266	yes
Capsicum frutescens	0.902	0.0161	1025	406643	0.25	0.3329	10	388	yes
Carica papaya	0.9028	0.0182	59	469549	0.01	0.2657	10	307	yes
Carya illinoinensis	0.8226	0.0443	1705	491411	0.35	0.3637	10	141	yes
Carya myristiciformis	0.9392	0.0336	15964	175590	9.09	0.2019	5	26	yes
Carya ovata	0.9663	0.016	74	209777	0.04	0.0784	10	101	yes
Carya palmeri	0.9183	0.0459	3402	113446	3.00	0.2917	5	42	yes
Crataegus mexicana	0.9424	0.0177	90	196225	0.05	0.185	10	251	yes
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	no
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	no
Cucurbita argyrosperma	0.8216	0.0354	774	511635	0.15	0.3861	10	225	yes
Cucurbita argyrosperma subsp. *sororia*	0.8628	0.0225	98	491454	0.02	0.3199	10	465	yes
Cucurbita cordata	0.9525	0.021	1392	165600	0.84	0.1253	10	94	yes
Cucurbita digitata	0.9207	0.0286	3574	269972	1.32	0.2537	10	92	yes
Cucurbita foetidissima	0.8055	0.0397	1933	626521	0.31	0.3568	10	242	yes
Cucurbita lundelliana	0.9581	0.0167	0	242926	0.00	0.1372	10	77	yes
Cucurbita okeechobeensis subsp. *martinezii*	0.929	0.0383	716	148741	0.48	0.1727	10	116	yes
Cucurbita palmata	0.9551	0.0181	6758	208561	3.24	0.1506	5	37	yes
Cucurbita pedatifolia	0.9353	0.0233	31	319548	0.01	0.2402	10	85	yes
Cucurbita pepo subsp. *fraterna*	0.9788	0.0125	79	131547	0.06	0.2939	5	15	yes
Cucurbita radicans	0.9561	0.0139	770	274369	0.28	0.1652	10	83	yes
Diospyros conzattii	0.9306	0.0372	10185	238109	4.28	0.0883	5	31	yes
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	no

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	no
Gossypium aridum	0.9281	0.0303	304	202016	0.15	0.1645	10	212	yes
Gossypium barbadense	0.8729	0.054	1855	487634	0.38	0.2895	10	80	yes
Gossypium gossypioides	0.9393	0.0422	2363	146496	1.61	0.1289	5	45	yes
Gossypium hirsutum	0.8432	0.0193	0	563364	0.00	0.3104	10	931	yes
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	no
Gossypium thurberi	0.9036	0.065	2326	263771	0.88	0.1012	5	39	yes
Helianthus annuus	0.7316	0.0582	2118	516123	0.41	0.4515	10	156	yes
Helianthus californicus	0.9907	0.0025	540	32621	1.66	0.4585	5	12	yes
Helianthus ciliaris	0.8	0.0647	418	556971	0.08	0.4475	5	17	yes
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	no
Helianthus laciniatus	0.8781	0.0374	2295	471365	0.49	0.3008	10	102	yes
Helianthus niveus	0.9425	0.0325	555	264750	0.21	0.0849	10	107	yes
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	no
Hylocereus ocamponis	0.9208	0.0233	662	325053	0.20	0.3199	5	49	yes
Ipomoea batatas	0.8751	0.0323	241	282214	0.09	0.4182	10	222	yes
Ipomoea leucantha	0.7698	0.0986	575	480791	0.12	0.5239	5	13	yes
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	no
Ipomoea tiliacea	0.8885	0.0392	656	383440	0.17	0.3147	10	184	yes
Ipomoea trifida	0.8773	0.028	446	345663	0.13	0.3111	10	467	yes
Ipomoea triloba	0.8512	0.0375	1030	419714	0.25	0.3841	10	184	yes
Jacaratia dolichaula	0.9761	0.0129	0	128754	0.00	0.08	10	111	yes
Jacaratia mexicana	0.9416	0.0187	0	235310	0.00	0.1933	10	252	yes
Jarilla caudata	0.9626	0.0185	1617	181699	0.89	0.3475	5	21	yes
Jarilla heterophylla	0.9234	0.0493	98	193849	0.05	0.2626	10	55	yes
Jatropha andrieuxii	0.9719	0.0137	12	88982	0.01	0.393	5	17	yes
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	no
Jatropha mcvaughii	0.9383	0.0198	6572	262961	2.50	0.3034	5	12	yes
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	no
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	no
Leucaena confertiflora	0.9775	0.0135	247	170463	0.14	0.1246	10	50	yes
Leucaena diversifolia	0.9369	0.0119	5	251266	0.00	0.192	10	443	yes
Leucaena esculenta	0.909	0.0167	497	314197	0.16	0.2736	10	489	yes
Leucaena lanceolata	0.9242	0.0171	0	310146	0.00	0.183	10	496	yes
Leucaena leucocephala	0.856	0.0163	0	540142	0.00	0.3046	10	935	yes

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Manihot aesculifolia	0.8756	0.0323	506	343510	0.15	0.385	10	218	yes
Manihot angustiloba	0.8034	0.0623	368	457825	0.08	0.3316	10	120	yes
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	no
Manihot caudata	0.8187	0.0745	1607	372715	0.43	0.3004	10	106	yes
Manihot chlorosticta	0.9413	0.0254	173	246750	0.07	0.0925	10	221	yes
Manihot crassisepala	0.8537	0.0919	11773	256583	4.59	0.4046	5	31	yes
Manihot davisiae	0.9114	0.0487	1266	230512	0.55	0.1726	5	40	yes
Manihot foetida	0.8867	0.0644	485	307930	0.16	0.4215	5	19	yes
Manihot michaelis	0.9651	0.0188	36	306643	0.01	0.1008	5	31	yes
Manihot oaxacana	0.9724	0.0183	20	83088	0.02	0.0733	10	116	yes
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot pauciflora	0.9595	0.0232	0	121215	0.00	0.1467	10	52	yes
Manihot pringlei	0.925	0.0394	63	239683	0.03	0.2145	10	53	yes
Manihot rhomboidea	0.8629	0.0423	66	506869	0.01	0.2393	10	95	yes
Manihot rhomboidea subsp. *Microcarpa*	0.9073	0.0329	882	429224	0.21	0.1831	10	73	yes
Manihot rubricaulis	0.8851	0.0386	3294	292950	1.12	0.3364	10	117	yes
Manihot rubricaulis subsp. *isoloba*	0.8655	0.0938	2636	299819	0.88	0.2271	5	29	yes
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot subspicata	0.8815	0.0677	5588	98727	5.66	0.4933	5	24	yes
Manihot tomatophylla	0.9272	0.0465	1542	90196	1.71	0.148	5	39	yes
Manihot walkerae	0.9073	0.0471	10320	100709	10.25	0.5753	5	12	no
Manilkara chicle	0.975	0.011	1629	102096	1.60	0.2226	5	39	yes
Manilkara zapota	0.9103	0.0126	3	441557	0.00	0.2444	10	466	yes
Opuntia atropes	0.9384	0.03	0	437572	0.00	0.1092	10	53	yes
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	no
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	no
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	no
Opuntia ficus-indica	0.8658	0.0508	1082	226939	0.48	0.356	10	123	yes
Opuntia hyptiacantha	0.9554	0.0183	717	204104	0.35	0.1332	10	136	yes
Opuntia lasiacantha	0.9487	0.0157	206	178017	0.12	0.2455	10	140	yes
Opuntia spinulifera	0.9529	0.0378	2475	102090	2.42	0.192	5	25	yes
Opuntia streptacantha	0.9271	0.0211	0	242214	0.00	0.2077	10	254	yes
Opuntia undulata	0.893	0.0366	841	449145	0.19	0.3777	5	17	yes
Opuntia velutina	0.9231	0.0304	3	437142	0.00	0.2102	10	67	yes
Opuntia wilcoxii	0.9148	0.0446	3798	251957	1.51	0.2338	5	30	yes
Pachyrhizus erosus	0.899	0.0182	126	435031	0.03	0.2966	10	245	yes
Pachyrhizus ferrugineus	0.9238	0.0355	8051	417892	1.93	0.1698	5	25	yes

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Persea americana	0.8776	0.0213	380	484685	0.08	0.2627	10	634	yes
Persea schiedeana	0.9768	0.0104	0	178205	0.00	0.0916	10	62	yes
Phaseolus acutifolius	0.7847	0.0338	147	530953	0.03	0.4042	10	452	yes
Phaseolus acutifolius var. *acutifolius*	0.8092	0.0391	57	451163	0.01	0.39	10	346	yes
Phaseolus acutifolius var. *tenuifolius*	0.8589	0.0472	107	442413	0.02	0.2914	10	103	yes
Phaseolus albescens	0.9773	0.0104	2684	133687	2.01	0.202	5	18	yes
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	no
Phaseolus carteri	0.9102	0.0516	66739	150124	44.46	0.2843	5	11	no
Phaseolus coccineus	0.856	0.0111	0	485516	0.00	0.2742	10	1843	yes
Phaseolus coccineus subsp. *coccineus*	0.8984	0.0213	0	436637	0.00	0.2188	10	328	yes
Phaseolus dumosus	0.9314	0.033	73	217026	0.03	0.1222	10	148	yes
Phaseolus filiformis	0.932	0.0154	0	244875	0.00	0.1897	10	564	yes
Phaseolus maculatus subsp. *ritensis*	0.9082	0.0274	1973	268072	0.74	0.3239	10	128	yes
Phaseolus parvifolius	0.864	0.0552	4	466019	0.00	0.3037	10	83	yes
Phaseolus vulgaris	0.7777	0.012	0	598801	0.00	0.3948	10	2846	yes
Phaseolus vulgaris var. *aborigineus*	0.8922	0.0545	0	381516	0.00	0.1832	5	25	yes
Physalis acutifolia	0.8932	0.0483	1445	391833	0.37	0.2002	10	94	yes
Physalis ampla	0.7533	0.0905	55	587591	0.01	0.4658	5	15	yes
Physalis angulata	0.7865	0.076	116	445119	0.03	0.4366	10	82	yes
Physalis crassifolia	0.9109	0.0282	437	395562	0.11	0.2894	10	67	yes
Physalis lagascae	0.9042	0.041	8	273609	0.00	0.2166	10	92	yes
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	no
Physalis philadelphica	0.8472	0.0283	613	563671	0.11	0.2891	10	371	yes
Physalis sulphurea	0.9549	0.0313	0	141720	0.00	0.2076	10	55	yes
Pinus ayacahuite	0.9248	0.0381	1068	249524	0.43	0.1714	5	48	yes
Pinus cembroides	0.8958	0.0221	25	418699	0.01	0.2527	10	433	yes
Pinus maximartinezii	0.9773	0.0135	4182	20087	20.82	0.6585	5	14	no
Pinus monophylla	0.9956	0.002	1076	21560	4.99	0.1822	5	20	yes
Pinus quadrifolia	0.9972	0.0009	92	12727	0.72	0.2431	5	19	yes
Pithecellobium dulce	0.8332	0.0115	0	651911	0.00	0.3296	10	1835	yes
Porophyllum gracile	0.9462	0.0236	84	200090	0.04	0.2148	10	173	yes
Porophyllum linaria	0.9232	0.0257	1623	290336	0.56	0.2647	10	105	yes
Porophyllum ruderale	0.8231	0.0411	194	437980	0.04	0.408	10	210	yes
Porophyllum scoparium	0.9112	0.038	2344	259081	0.90	0.2807	10	83	yes
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	no
Portulaca halimoides	0.7295	-0.5528	NA	NA	NA	0.4879	5	10	no
Portulaca umbraticola	0.8499	0.0635	72714	357277	20.35	0.4071	5	18	no

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	no
Pouteria campechiana	0.9181	0.0213	757	347676	0.22	0.2576	10	184	yes
Pouteria durlandii	0.9695	0.0135	92	237660	0.04	0.0766	5	41	yes
Pouteria glomerata	0.9786	0.0112	528	187665	0.28	0.2565	5	18	yes
Pouteria reticulata	0.9746	0.0074	6	162363	0.00	0.1788	10	84	yes
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	3	no
Pouteria sapota	0.9263	0.0245	2011	386657	0.52	0.199	5	46	yes
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium guajava	0.8334	0.029	303	632995	0.05	0.3456	10	319	yes
Psidium guineense	0.9444	0.029	0	103497	0.00	0.138	10	75	yes
Psidium oligospermum	0.8928	0.0286	0	349367	0.00	0.3267	10	180	yes
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	no
Salvia axillaris	0.9399	0.0298	21	223117	0.01	0.2539	10	51	yes
Salvia candicans	0.9322	0.048	56014	53355	104.98	0.3248	5	19	no
Salvia carnea	0.9262	0.0395	70	237580	0.03	0.1559	10	61	yes
Salvia cinnabarina	0.9551	0.0206	0	181778	0.00	0.1578	10	84	yes
Salvia coccinea	0.9069	0.0167	21	347270	0.01	0.3019	10	402	yes
Salvia columbariae	0.9783	0.009	504	135922	0.37	0.1791	5	37	yes
Salvia elegans	0.9257	0.0131	0	321210	0.00	0.1901	10	567	yes
Salvia fluviatilis	0.8202	0.0238	0	387080	0.00	0.527	5	10	yes
Salvia helianthemifolia	0.9701	0.0124	268	228948	0.12	0.1365	5	36	yes
Salvia hispanica	0.8878	0.0389	242	309702	0.08	0.2908	10	127	yes
Salvia laevis	0.9746	0.0078	405	137434	0.29	0.121	10	128	yes
Salvia lasiantha	0.9113	0.0654	714	140472	0.51	0.215	5	20	yes
Salvia lasiocephala	0.8674	0.0529	2216	314430	0.70	0.2758	10	107	yes
Salvia leucantha	0.8713	0.0666	23589	337461	6.99	0.3842	5	18	yes
Salvia longispicata	0.8963	0.0438	16620	243067	6.84	0.365	5	28	yes
Salvia longistyla	0.9738	0.0136	1831	94829	1.93	0.2811	5	20	yes
Salvia mexicana	0.9113	0.0277	385	389441	0.10	0.2056	10	186	yes
Salvia microphylla	0.8974	0.0175	239	300468	0.08	0.3242	10	548	yes
Salvia misella	0.8589	0.0401	1920	412946	0.46	0.3042	10	113	yes
Salvia mocinoi	0.9427	0.0204	111	321675	0.03	0.0973	10	105	yes
Salvia oaxacana	0.9333	0.0506	40078	58894	68.05	0.3321	5	19	no
Salvia occidentalis	0.8817	0.0341	251	428149	0.06	0.203	10	211	yes
Salvia patens	0.9395	0.0266	6989	238594	2.93	0.1472	5	45	yes
Salvia polystachia	0.9361	0.024	1576	257495	0.61	0.172	10	108	yes

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Salvia prunelloides	0.9235	0.0313	50	236062	0.02	0.3045	10	53	yes
Salvia purpurea	0.9331	0.0135	138	299377	0.05	0.2042	10	402	yes
Salvia recurva	0.9716	0.0202	5829	50162	11.62	0.2847	5	13	no
Salvia regla	0.8856	0.04	1162	412822	0.28	0.3264	10	80	yes
Salvia sanctae-luciae	0.9957	0.0011	975	20610	4.73	0.3404	5	13	yes
Salvia setulosa	0.9244	0.0357	364	266896	0.14	0.4466	5	13	yes
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	no
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	no
Salvia thyrsiflora	0.9656	0.0144	530	206676	0.26	0.072	10	131	yes
Salvia tiliifolia	0.8581	0.0254	154	550435	0.03	0.3043	10	340	yes
Sechium chinantlense	0.9721	0.0191	3141	80775	3.89	0.1802	5	22	yes
Sechium compositum	0.9799	0.0157	264	40200	0.66	0.1433	5	32	yes
Sechium edule subsp. *sylvestre*	0.9574	0.0303	1032	111795	0.92	0.146	5	32	yes
Sechium hintonii	0.9563	0.0095	9755	217955	4.48	0.3923	5	15	yes
Simmondsia chinensis	0.9451	0.0198	304	272020	0.11	0.1372	10	212	yes
Solanum bulbocastanum	0.92	0.0191	87	294732	0.03	0.2403	10	442	yes
Solanum cardiophyllum	0.8409	0.0492	206	323801	0.06	0.3199	10	241	yes
Solanum clarum	0.9871	0.0089	609	112056	0.54	0.0883	5	12	yes
Solanum demissum	0.8782	0.025	2	307741	0.00	0.2161	10	683	yes
Solanum ehrenbergii	0.908	0.0339	796	306947	0.26	0.2026	10	179	yes
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	no
Solanum hintonii	0.8439	0.0805	12848	333025	3.86	0.3941	5	22	yes
Solanum hjertingii	0.8479	0.0767	1550	395764	0.39	0.2278	10	81	yes
Solanum hougasii	0.9535	0.0237	511	235730	0.22	0.0766	10	86	yes
Solanum iopetalum	0.9157	0.0253	817	252297	0.32	0.2015	10	379	yes
Solanum morelliforme	0.9322	0.0347	285	158194	0.18	0.1958	10	127	yes
Solanum oxycarpum	0.9248	0.0403	178	158237	0.11	0.1741	10	81	yes
Solanum pinnatisectum	0.9083	0.0542	545	101592	0.54	0.1928	10	108	yes
Solanum polyadenium	0.8889	0.0522	2919	212482	1.37	0.2748	10	116	yes
Solanum schenckii	0.9288	0.0385	31	279370	0.01	0.1753	10	58	yes
Solanum stenophyllidium	0.8991	0.037	474	296873	0.16	0.2426	10	162	yes
Solanum stoloniferum	0.8497	0.0163	39	518287	0.01	0.3089	10	1211	yes
Solanum tarnii	0.9391	0.0475	387	62205	0.62	0.3449	5	38	yes
Solanum trifidum	0.9455	0.0341	181	112508	0.16	0.159	10	129	yes
Solanum verrucosum	0.8952	0.0247	158	287953	0.05	0.2212	10	523	yes
Spondias mombin	0.8944	0.0205	14	428842	0.00	0.3053	10	227	yes
Spondias purpurea	0.8744	0.0295	581	396418	0.15	0.3508	10	206	yes

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Stenocereus alamosensis	0.9322	0.0398	1071	167312	0.64	0.1946	5	46	yes
Stenocereus beneckei	0.9897	0.0056	0	98303	0.00	0.059	5	25	yes
Stenocereus chrysocarpus	0.9594	0.024	1330	72137	1.84	0.4096	5	17	yes
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	no
Stenocereus eruca	0.9433	0.0429	3881	120169	3.23	0.146	5	26	yes
Stenocereus fricii	0.9879	0.0055	3311	79361	4.17	0.217	5	13	yes
Stenocereus griseus	0.9126	0.0502	208	179381	0.12	0.202	10	51	yes
Stenocereus gummosus	0.9718	0.0102	21	179381	0.01	0.116	10	84	yes
Stenocereus kerberi	0.9641	0.0231	4511	144214	3.13	0.202	5	12	yes
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	no
Stenocereus montanus	0.925	0.0296	10953	221238	4.95	0.284	5	24	yes
Stenocereus pruinosus	0.9288	0.0254	1250	249163	0.50	0.2266	10	110	yes
Stenocereus queretaroensis	0.9485	0.0218	0	356658	0.00	0.1124	10	66	yes
Stenocereus quevedonis	0.9795	0.0111	0	126016	0.00	0.0704	5	16	yes
Stenocereus standleyi	0.9088	0.0147	22073	226007	9.77	0.3358	5	18	yes
Stenocereus stellatus	0.9673	0.0209	0	103628	0.00	0.2262	10	64	yes
Stenocereus thurberi	0.9403	0.0206	1141	259120	0.44	0.2527	10	96	yes
Stenocereus treleasei	0.9888	0.0075	1331	22598	5.89	0.2871	5	19	yes
Tagetes erecta	0.85	0.0161	0	615379	0.00	0.3359	10	801	yes
Tagetes filifolia	0.8774	0.0353	609	477059	0.13	0.2098	10	173	yes
Tagetes foetidissima	0.9447	0.0202	233	259945	0.09	0.1357	10	102	yes
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	no
Tagetes lucida	0.8681	0.0206	49	477034	0.01	0.3347	10	468	yes
Tagetes micrantha	0.9054	0.0214	660	394922	0.17	0.2747	10	259	yes
Tagetes pringlei	0.9452	0.0215	0	344474	0.00	0.1564	10	63	yes
Tagetes stenophylla	0.971	0.015	0	184329	0.00	0.1061	10	51	yes
Tagetes subulata	0.9062	0.0202	33	429352	0.01	0.2376	10	248	yes
Theobroma cacao	0.9343	0.0305	420	454943	0.09	0.12	10	80	yes
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum bravum	0.9766	0.0121	4447	110922	4.01	0.2789	5	18	yes
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	no
Tripsacum dactyloides var. *hispidum*	0.9205	0.0342	1219	208331	0.59	0.2606	10	186	yes
Tripsacum dactyloides var. *mexicanum*	0.9115	0.0382	0	375670	0.00	0.2037	5	28	yes
Tripsacum intermedium	0.8259	0.0738	49515	206515	23.98	0.4519	5	13	no
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	no
Tripsacum lanceolatum	0.8712	0.0341	1540	513726	0.30	0.256	10	377	yes
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	no

Supplementary Table 4.2c. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP4.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Tripsacum laxum	0.8251	0.0293	7656	557015	1.37	0.3882	5	13	yes
Tripsacum maizar	0.9248	0.0403	14209	216078	6.58	0.3672	5	11	yes
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum pilosum	0.9767	0.0149	0	155516	0.00	0.1021	10	55	yes
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum zopilotense	0.9821	0.0051	159	76338	0.21	0.3723	5	18	yes
Vanilla planifolia	0.8904	0.0473	1137	455925	0.25	0.2609	10	73	yes
Vanilla pompona	0.8748	0.0625	4964	385401	1.29	0.2841	5	26	yes
Zea diploperennis	0.9817	0.0095	145	139394	0.10	0.0664	10	89	yes
Zea luxurians	0.9995	0.0002	174	1042	16.70	0.1831	5	12	no
Zea mays subsp. *mexicana*	0.9421	0.0091	0	223091	0.00	0.1921	10	792	yes
Zea mays subsp. *parviglumis*	0.9574	0.0053	136	146539	0.09	0.1953	10	848	yes
Zea perennis	0.9851	0.0107	105	62405	0.17	0.11	5	47	yes

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Agave aktites	0.9921	-0.3976	NA	NA	NA	0.384	5	13	no
Agave angustifolia	0.8662	0.021	100	457064	0.02	0.3181	10	546	yes
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	no
Agave atrovirens	0.9664	0.009	1576	163542	0.96	0.2091	5	21	yes
Agave congesta	0.9618	0.0226	4149	8938	46.42	0.4954	5	11	no
Agave datylio	0.9801	0.0107	394	95988	0.41	0.2264	5	17	yes
Agave fourcroydes	0.9787	0.0148	0	70400	0.00	0.1317	5	38	yes
Agave hiemiflora	0.9891	0.0083	942	46443	2.03	0.1176	5	21	yes
Agave hurteri	0.9142	0.0223	10356	177527	5.83	0.4536	5	11	yes
Agave karwinskii	0.9729	0.0167	368	121059	0.30	0.0688	10	52	yes
Agave kewensis	0.9947	0.0019	313	23805	1.31	0.543	5	14	yes
Agave macroacantha	0.9768	0.015	401	30663	1.31	0.1558	5	32	yes
Agave macroculmis	0.9348	0.0329	991	229787	0.43	0.2408	5	23	yes
Agave mapisaga	0.8531	0.0667	87548	522428	16.76	0.2749	5	14	no
Agave rhodacantha	0.9076	0.0504	1255	288012	0.44	0.3038	10	51	yes
Agave seemanniana	0.9703	0.0149	0	100218	0.00	0.2162	10	51	yes
Agave sisalana	0.8288	0.0799	22026	447443	4.92	0.4292	5	14	yes
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	no
Agave tequilana	0.9748	0.0101	116	105540	0.11	0.3798	5	22	yes
Amaranthus australis	0.9434	0.024	2589	213724	1.21	0.1175	5	31	yes
Amaranthus blitoides	0.6257	0.0837	NA	NA	NA	0.4744	5	14	no
Amaranthus caudatus	0.8429	0.0961	3179	180194	1.76	0.1868	5	22	yes
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	no
Amaranthus cruentus	0.8836	0.0723	2567	237520	1.08	0.2774	10	66	yes
Amaranthus dubius	0.9228	0.0323	1876	304368	0.62	0.2011	10	55	yes
Amaranthus fimbriatus	0.9425	0.0291	0	304910	0.00	0.1552	10	64	yes
Amaranthus greggii	0.9762	0.0116	0	65897	0.00	0.2684	10	116	yes
Amaranthus hybridus	0.8655	0.0193	218	457518	0.05	0.3462	10	667	yes
Amaranthus hypochondriacus	0.9178	0.0464	143	174727	0.08	0.186	10	98	yes
Amaranthus palmeri	0.7839	0.0509	274	447737	0.06	0.4119	10	217	yes
Amaranthus polygonoides	0.6715	0.0921	NA	NA	NA	0.4277	5	36	no
Amaranthus powellii	0.8993	0.0397	410	379428	0.11	0.1769	10	94	yes
Amaranthus scariosus	0.9139	0.0395	4668	230152	2.03	0.2012	5	48	yes
Amaranthus spinosus	0.8867	0.0181	47	504591	0.01	0.3218	10	477	yes
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	no
Amaranthus torreyi	0.8925	0.0589	883	486935	0.18	0.1307	10	67	yes
Annona cherimola	0.9179	0.0193	84	363335	0.02	0.1946	10	340	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Annona glabra	0.9581	0.0129	419	181121	0.23	0.2232	10	184	yes
Annona globiflora	0.9564	0.0103	241	142436	0.17	0.1978	10	374	yes
Annona longiflora	0.9529	0.0216	64	269675	0.02	0.139	10	69	yes
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	no
Annona macroprophyllata	0.9298	0.0308	66	305228	0.02	0.2256	10	65	yes
Annona muricata	0.9083	0.0212	726	320037	0.23	0.3337	10	131	yes
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	no
Annona purpurea	0.9508	0.0191	200	204563	0.10	0.2538	10	109	yes
Annona reticulata	0.8933	0.0141	436	505167	0.09	0.2788	10	516	yes
Annona liebmanniana	0.9557	0.0235	383	196131	0.20	0.1647	5	24	yes
Annona squamosa	0.9383	0.0149	7	285518	0.00	0.2144	10	291	yes
Bixa orellana	0.9195	0.0144	158	439652	0.04	0.2517	10	273	yes
Byrsonima crassifolia	0.8911	0.0143	63	577776	0.01	0.2698	10	465	yes
Capsicum annuum var. *glabriusculum*	0.8177	0.0387	0	1368921	0.00	0.3822	10	266	yes
Capsicum frutescens	0.8999	0.016	888	404332	0.22	0.3433	10	388	yes
Carica papaya	0.9005	0.0184	37	442476	0.01	0.2992	10	307	yes
Carya illinoinensis	0.8253	0.0467	1875	430173	0.44	0.3638	10	141	yes
Carya myristiciformis	0.9341	0.0385	16338	86643	18.86	0.3008	5	26	no
Carya ovata	0.9674	0.0143	179	204556	0.09	0.0814	10	101	yes
Carya palmeri	0.919	0.0481	4109	85240	4.82	0.3326	5	42	yes
Crataegus mexicana	0.9419	0.0184	226	160051	0.14	0.2541	10	251	yes
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	no
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	no
Cucurbita argyrosperma	0.8237	0.0365	31	573241	0.01	0.3576	10	225	yes
Cucurbita argyrosperma subsp. *sororia*	0.862	0.0228	108	529922	0.02	0.281	10	465	yes
Cucurbita cordata	0.9542	0.0201	19	153571	0.01	0.1648	10	94	yes
Cucurbita digitata	0.9167	0.0286	739	299639	0.25	0.2283	10	92	yes
Cucurbita foetidissima	0.8094	0.0389	1351	510401	0.26	0.4025	10	242	yes
Cucurbita lundelliana	0.9612	0.0145	0	275442	0.00	0.0999	10	77	yes
Cucurbita okeechobeensis subsp. *martinezii*	0.9315	0.0367	1140	155616	0.73	0.1623	10	116	yes
Cucurbita palmata	0.9532	0.017	7616	255018	2.99	0.1121	5	37	yes
Cucurbita pedatifolia	0.9353	0.0251	204	233443	0.09	0.3073	10	85	yes
Cucurbita pepo subsp. *fraterna*	0.9802	0.0106	510	111027	0.46	0.338	5	15	yes
Cucurbita radicans	0.9571	0.0135	406	240257	0.17	0.199	10	83	yes
Diospyros conzattii	0.9279	0.0382	12097	154746	7.82	0.1348	5	31	yes
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	no
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	no

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Gossypium aridum	0.9302	0.0294	128	198320	0.06	0.1677	10	212	yes
Gossypium barbadense	0.8689	0.0541	981	428595	0.23	0.3306	10	80	yes
Gossypium gossypioides	0.9335	0.046	2989	114503	2.61	0.1375	5	45	yes
Gossypium hirsutum	0.8448	0.0191	0	528360	0.00	0.3279	10	931	yes
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	no
Gossypium thurberi	0.9031	0.0654	3486	229308	1.52	0.1254	5	39	yes
Helianthus annuus	0.719	0.0592	1935	493287	0.39	0.4641	10	156	yes
Helianthus californicus	0.9908	0.002	3	32525	0.01	0.4697	5	12	yes
Helianthus ciliaris	0.784	0.0697	487	655885	0.07	0.4302	5	17	yes
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	no
Helianthus laciniatus	0.879	0.0368	2441	482090	0.51	0.2682	10	102	yes
Helianthus niveus	0.9416	0.0327	508	252027	0.20	0.1055	10	107	yes
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	no
Hylocereus ocamponis	0.921	0.0241	1010	309806	0.33	0.3299	5	49	yes
Ipomoea batatas	0.8825	0.0319	228	297099	0.08	0.395	10	222	yes
Ipomoea leucantha	0.7667	0.1082	12	569595	0.00	0.4991	5	13	yes
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	no
Ipomoea tiliacea	0.8916	0.0397	545	343518	0.16	0.3273	10	184	yes
Ipomoea trifida	0.8829	0.0273	103	462934	0.02	0.2636	10	467	yes
Ipomoea triloba	0.8534	0.0379	306	427563	0.07	0.3734	10	184	yes
Jacaratia dolichaula	0.9746	0.0146	0	131645	0.00	0.0716	10	111	yes
Jacaratia mexicana	0.9399	0.0185	1	258194	0.00	0.1805	10	252	yes
Jarilla caudata	0.9663	0.0168	2732	176208	1.55	0.3375	5	21	yes
Jarilla heterophylla	0.9226	0.0489	185	211408	0.09	0.204	10	55	yes
Jatropha andrieuxii	0.9764	0.0112	166	135488	0.12	0.2543	5	17	yes
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	no
Jatropha mcvaughii	0.9369	0.0198	364	271556	0.13	0.3074	5	12	yes
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	no
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	no
Leucaena confertiflora	0.98	0.0118	0	160046	0.00	0.1232	10	50	yes
Leucaena diversifolia	0.9355	0.0122	70	247998	0.03	0.2004	10	443	yes
Leucaena esculenta	0.9089	0.0168	270	289069	0.09	0.2969	10	489	yes
Leucaena lanceolata	0.9267	0.0164	1	311933	0.00	0.1758	10	496	yes
Leucaena leucocephala	0.8583	0.0161	0	542056	0.00	0.3001	10	935	yes
Manihot aesculifolia	0.8745	0.0314	438	429463	0.10	0.3228	10	218	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Manihot angustiloba	0.7926	0.0658	1088	414157	0.26	0.356	10	120	yes
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	no
Manihot caudata	0.8256	0.0727	2383	382536	0.62	0.291	10	106	yes
Manihot chlorosticta	0.9398	0.0272	38	210850	0.02	0.1123	10	221	yes
Manihot crassisepala	0.85	0.0932	10793	220844	4.89	0.4405	5	31	yes
Manihot davisiae	0.9068	0.0521	2007	239089	0.84	0.1722	5	40	yes
Manihot foetida	0.8735	0.0721	1319	358318	0.37	0.3771	5	19	yes
Manihot michaelis	0.9589	0.0223	19	249943	0.01	0.1469	5	31	yes
Manihot oaxacana	0.971	0.0189	2	101292	0.00	0.0565	10	116	yes
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot pauciflora	0.9605	0.0227	0	210468	0.00	0.1573	10	52	yes
Manihot pringlei	0.9281	0.0397	242	210468	0.11	0.2246	10	53	yes
Manihot rhomboidea	0.8765	0.0389	54	475160	0.01	0.2591	10	95	yes
Manihot rhomboidea subsp. *microcarpa*	0.9114	0.0327	403	429803	0.09	0.1818	10	73	yes
Manihot rubricaulis	0.884	0.0412	3194	240327	1.33	0.3671	10	117	yes
Manihot rubricaulis subsp. *isoloba*	0.8629	0.0962	3262	254794	1.28	0.2886	5	29	yes
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot subspicata	0.885	0.0675	7668	107827	7.11	0.4253	5	24	yes
Manihot tomatophylla	0.934	0.0409	84	112809	0.07	0.1179	5	39	yes
Manihot walkerae	0.9028	0.048	15689	115700	13.56	0.5607	5	12	no
Manilkara chicle	0.9742	0.0119	1	118916	0.00	0.181	5	39	yes
Manilkara zapota	0.911	0.0123	0	409128	0.00	0.2772	10	466	yes
Opuntia atropes	0.935	0.0326	0	386090	0.00	0.1443	10	53	yes
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	no
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	no
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	no
Opuntia ficus-indica	0.869	0.0515	2117	281470	0.75	0.3124	10	123	yes
Opuntia hyptiacantha	0.9594	0.0165	715	174225	0.41	0.1489	10	136	yes
Opuntia lasiacantha	0.9454	0.016	1019	229468	0.44	0.1827	10	140	yes
Opuntia spinulifera	0.9546	0.0366	1636	89387	1.83	0.1787	5	25	yes
Opuntia streptacantha	0.9276	0.0207	24	231750	0.01	0.2211	10	254	yes
Opuntia undulata	0.8872	0.0353	3033	415338	0.73	0.4144	5	17	yes
Opuntia velutina	0.9168	0.0323	0	407959	0.00	0.2398	10	67	yes
Opuntia wilcoxii	0.9039	0.0512	2483	194040	1.28	0.2908	5	30	yes
Pachyrhizus erosus	0.9004	0.0178	419	404662	0.10	0.327	10	245	yes
Pachyrhizus ferrugineus	0.9245	0.0365	11508	334181	3.44	0.2083	5	25	yes
Persea americana	0.8793	0.0212	127	441195	0.03	0.2872	10	634	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Persea schiedeana	0.9775	0.0102	0	195714	0.00	0.0744	10	62	yes
Phaseolus acutifolius	0.7874	0.0333	243	608392	0.04	0.3803	10	452	yes
Phaseolus acutifolius var. *acutifolius*	0.8068	0.0396	1504	570213	0.26	0.3323	10	346	yes
Phaseolus acutifolius var. *tenuifolius*	0.8524	0.0491	283	486964	0.06	0.2764	10	103	yes
Phaseolus albescens	0.9813	0.0078	2309	133398	1.73	0.1978	5	18	yes
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	no
Phaseolus carteri	0.9107	0.0541	31635	129211	24.48	0.2906	5	11	no
Phaseolus coccineus	0.8559	0.0112	0	467564	0.00	0.2829	10	1843	yes
Phaseolus coccineus subsp. *coccineus*	0.895	0.0217	0	384947	0.00	0.267	10	328	yes
Phaseolus dumosus	0.9272	0.036	74	194519	0.04	0.1483	10	148	yes
Phaseolus filiformis	0.9311	0.0158	0	231830	0.00	0.2079	10	564	yes
Phaseolus maculatus subsp. *ritensis*	0.9075	0.0285	3329	335809	0.99	0.2606	10	128	yes
Phaseolus parvifolius	0.8627	0.0558	2	511582	0.00	0.2839	10	83	yes
Phaseolus vulgaris	0.7795	0.0118	3	555641	0.00	0.4166	10	2846	yes
Phaseolus vulgaris var. *aborigineus*	0.872	0.0705	8917	379017	2.35	0.1969	5	25	yes
Physalis acutifolia	0.8895	0.0491	1017	299740	0.34	0.2965	10	94	yes
Physalis ampla	0.7022	0.1081	450	608743	0.07	0.4948	5	15	yes
Physalis angulata	0.7788	0.0785	599	455921	0.13	0.4229	10	82	yes
Physalis crassifolia	0.9068	0.0294	718	411906	0.17	0.2729	10	67	yes
Physalis lagascae	0.8962	0.0436	2	287200	0.00	0.207	10	92	yes
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	no
Physalis philadelphica	0.8411	0.0286	834	570549	0.15	0.2757	10	371	yes
Physalis sulphurea	0.9585	0.0283	1	142251	0.00	0.1846	10	55	yes
Pinus ayacahuite	0.9321	0.0326	873	297186	0.29	0.1424	5	48	yes
Pinus cembroides	0.8932	0.0228	1	411640	0.00	0.2614	10	433	yes
Pinus maximartinezii	0.9736	0.018	102285	2393836	4.27	0.6115	5	14	yes
Pinus monophylla	0.9946	0.0021	2543	26171	9.72	0.1476	5	20	yes
Pinus quadrifolia	0.9973	0.0009	11	2496110	0.00	0.2539	5	19	yes
Pithecellobium dulce	0.8348	0.0115	0	643807	0.00	0.3325	10	1835	yes
Porophyllum gracile	0.9418	0.0263	3	226842	0.00	0.1893	10	173	yes
Porophyllum linaria	0.9197	0.0276	2326	288693	0.81	0.2704	10	105	yes
Porophyllum ruderale	0.8294	0.0394	385	505638	0.08	0.3715	10	210	yes
Porophyllum scoparium	0.9124	0.0404	2511	247799	1.01	0.2717	10	83	yes
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	no
Portulaca halimoides	0.7497	-0.5564	NA	NA	NA	0.4803	5	10	no
Portulaca umbraticola	0.8694	0.0539	53263	309757	17.20	0.409	5	18	no
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	no

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Pouteria campechiana	0.926	0.0198	243	349170	0.07	0.2508	10	184	yes
Pouteria durlandii	0.9699	0.0135	278	215124	0.13	0.0791	5	41	yes
Pouteria glomerata	0.9827	0.007	317	134411	0.24	0.3048	5	18	yes
Pouteria reticulata	0.9758	0.0068	0	160278	0.00	0.1784	10	84	yes
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	3	no
Pouteria sapota	0.9247	0.026	3406	394291	0.86	0.1884	5	46	yes
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium guajava	0.8314	0.029	208	602091	0.03	0.3612	10	319	yes
Psidium guineense	0.9506	0.025	0	275991	0.00	0.1142	10	75	yes
Psidium oligospermum	0.8919	0.0286	1017	372068	0.27	0.3203	10	180	yes
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	no
Salvia axillaris	0.9346	0.0327	2	214179	0.00	0.2671	10	51	yes
Salvia candicans	0.9368	0.0481	61194	46324	132.10	0.2991	5	19	no
Salvia carnea	0.9259	0.0396	212	190962	0.11	0.1943	10	61	yes
Salvia cinnabarina	0.9543	0.0208	0	241309	0.00	0.1144	10	84	yes
Salvia coccinea	0.9098	0.0166	0	341040	0.00	0.3077	10	402	yes
Salvia columbariae	0.9775	0.0095	283	159014	0.18	0.1219	5	37	yes
Salvia elegans	0.9232	0.0138	18	296780	0.01	0.2093	10	567	yes
Salvia fluviatilis	0.8203	0.0625	0	418523	0.00	0.5255	5	10	yes
Salvia helianthemifolia	0.9655	0.0164	218	186818	0.12	0.1626	5	36	yes
Salvia hispanica	0.8844	0.0411	547	289980	0.19	0.3123	10	127	yes
Salvia laevis	0.9774	0.0069	158	99162	0.16	0.1956	10	128	yes
Salvia lasiantha	0.9068	0.0689	781	203920	0.38	0.1575	5	20	yes
Salvia lasiocephala	0.8605	0.0548	2653	348166	0.76	0.2618	10	107	yes
Salvia leucantha	0.8652	0.0704	42234	2453887	1.72	0.371	5	18	yes
Salvia longispicata	0.8885	0.0465	23226	2472895	0.94	0.3523	5	28	yes
Salvia longistyla	0.976	0.0127	755	109168	0.69	0.2546	5	20	yes
Salvia mexicana	0.9108	0.0268	370	348993	0.11	0.2404	10	186	yes
Salvia microphylla	0.8985	0.0172	118	330676	0.04	0.2865	10	548	yes
Salvia misella	0.849	0.0447	2103	462191	0.46	0.2877	10	113	yes
Salvia mocinoi	0.9424	0.022	63	326886	0.02	0.0857	10	105	yes
Salvia oaxacana	0.9359	0.0495	31532	54198	58.18	0.3517	5	19	no
Salvia occidentalis	0.8796	0.0358	391	303226	0.13	0.2762	10	211	yes
Salvia patens	0.9343	0.0297	4486	219479	2.04	0.1862	5	45	yes
Salvia polystachia	0.932	0.0251	1150	288069	0.40	0.151	10	108	yes
Salvia prunelloides	0.9215	0.0315	54	232962	0.02	0.2963	10	53	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	**ATAUC[1]**	**STAUC[2]**	**pixels >0.15**	**pixels <0.15**	**ASD15[3]**	**Threshold[4]**	**Replicates[5]**	**Observations[6]**	**Valid**
Salvia purpurea	0.9347	0.0134	2	341636	0.00	0.1733	10	402	yes
Salvia recurva	0.9686	0.0228	6532	60156	10.86	0.2366	5	13	no
Salvia regla	0.8783	0.0425	1219	457719	0.27	0.3112	10	80	yes
Salvia sanctae-luciae	0.9966	0.0013	2098	14294	14.68	0.4033	5	13	no
Salvia setulosa	0.9062	0.0494	1698	270392	0.63	0.4271	5	13	yes
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	no
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	no
Salvia thyrsiflora	0.9658	0.014	422	190737	0.22	0.0818	10	131	yes
Salvia tiliifolia	0.8584	0.0259	218	528437	0.04	0.3144	10	340	yes
Sechium chinantlense	0.9696	0.0217	2028	67570	3.00	0.2051	5	22	yes
Sechium compositum	0.9798	0.0156	554	34946	1.59	0.1413	5	32	yes
Sechium edule subsp. *sylvestre*	0.9601	0.0271	1247	159581	0.78	0.1255	5	32	yes
Sechium hintonii	0.9618	0.0082	20875	230403	9.06	0.3311	5	15	yes
Simmondsia chinensis	0.9435	0.0195	331	232343	0.14	0.1968	10	212	yes
Solanum bulbocastanum	0.9207	0.0183	54	311493	0.02	0.215	10	442	yes
Solanum cardiophyllum	0.8406	0.0499	236	293940	0.08	0.3351	10	241	yes
Solanum clarum	0.986	0.0097	283	114414	0.25	0.0858	5	12	yes
Solanum demissum	0.8785	0.0245	406	236003	0.17	0.2017	10	683	yes
Solanum ehrenbergii	0.9069	0.035	968	264350	0.37	0.2514	10	179	yes
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	no
Solanum hintonii	0.8296	0.0828	14627	320706	4.56	0.4106	5	22	yes
Solanum hjertingii	0.8441	0.0796	671	361545	0.19	0.2482	10	81	yes
Solanum hougasii	0.9521	0.0267	633	209946	0.30	0.0995	10	86	yes
Solanum iopetalum	0.9142	0.0264	599	278603	0.22	0.1843	10	379	yes
Solanum morelliforme	0.9308	0.0364	338	166567	0.20	0.179	10	127	yes
Solanum oxycarpum	0.9217	0.0424	147	161540	0.09	0.1849	10	81	yes
Solanum pinnatisectum	0.9058	0.0556	1211	98584	1.23	0.1964	10	108	yes
Solanum polyadenium	0.8903	0.0527	2564	260277	0.99	0.1902	10	116	yes
Solanum schenckii	0.9283	0.0408	14	303001	0.00	0.1656	10	58	yes
Solanum stenophyllidium	0.9011	0.0358	822	341909	0.24	0.2103	10	162	yes
Solanum stoloniferum	0.8503	0.0163	48	492398	0.01	0.324	10	1211	yes
Solanum tarnii	0.9431	0.0435	243	64481	0.38	0.3382	5	38	yes
Solanum trifidum	0.9436	0.0353	238	131213	0.18	0.1325	10	129	yes
Solanum verrucosum	0.8934	0.0255	96	294567	0.03	0.2228	10	523	yes
Spondias mombin	0.8882	0.0215	4	503260	0.00	0.2501	10	227	yes
Spondias purpurea	0.8738	0.029	269	522991	0.05	0.2906	10	206	yes
Stenocereus alamosensis	0.9313	0.0387	287	151329	0.19	0.2411	5	46	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Stenocereus beneckei	0.9926	0.0034	48	73540	0.07	0.088	5	25	yes
Stenocereus chrysocarpus	0.9603	0.0226	2985	74040	4.03	0.3874	5	17	yes
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	no
Stenocereus eruca	0.9465	0.0401	2691	133048	2.02	0.1284	5	26	yes
Stenocereus fricii	0.987	0.0065	2681	74401	3.60	0.2252	5	13	yes
Stenocereus griseus	0.9098	0.0524	194	326011	0.06	0.1965	10	51	yes
Stenocereus gummosus	0.9723	0.0104	0	175624	0.00	0.1215	10	84	yes
Stenocereus kerberi	0.9639	0.0235	4206	186444	2.26	0.1722	5	12	yes
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	no
Stenocereus montanus	0.919	0.033	16258	192420	8.45	0.286	5	24	yes
Stenocereus pruinosus	0.923	0.0282	1293	298316	0.43	0.1942	10	110	yes
Stenocereus queretaroensis	0.9489	0.0207	0	317381	0.00	0.1478	10	66	yes
Stenocereus quevedonis	0.9791	0.0116	0	112293	0.00	0.0802	5	16	yes
Stenocereus standleyi	0.9055	0.0171	20850	273933	7.61	0.3061	5	18	yes
Stenocereus stellatus	0.9622	0.024	0	165490	0.00	0.1369	10	64	yes
Stenocereus thurberi	0.9405	0.0207	649	331933	0.20	0.1664	10	96	yes
Stenocereus treleasei	0.9912	0.0056	1331	24523	5.43	0.2665	5	19	yes
Tagetes erecta	0.85	0.0163	0	624081	0.00	0.3315	10	801	yes
Tagetes filifolia	0.8794	0.035	1713	377132	0.45	0.28	10	173	yes
Tagetes foetidissima	0.9419	0.0223	231	282724	0.08	0.1273	10	102	yes
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	no
Tagetes lucida	0.8689	0.0203	10	466389	0.00	0.3496	10	468	yes
Tagetes micrantha	0.9071	0.0204	561	313363	0.18	0.3397	10	259	yes
Tagetes pringlei	0.945	0.0208	0	350302	0.00	0.1532	10	63	yes
Tagetes stenophylla	0.9738	0.0124	0	161176	0.00	0.1263	10	51	yes
Tagetes subulata	0.9088	0.0206	1537	425691	0.36	0.2295	10	248	yes
Theobroma cacao	0.9403	0.0285	499	422111	0.12	0.1197	10	80	yes
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum bravum	0.9762	0.0128	5056	107751	4.69	0.2489	5	18	yes
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	no
Tripsacum dactyloides var. *hispidum*	0.9247	0.0313	1424	244419	0.58	0.2164	10	186	yes
Tripsacum dactyloides var. *mexicanum*	0.9159	0.0356	9921	346443	2.86	0.2394	5	28	yes
Tripsacum intermedium	0.8125	0.0751	42091	251213	16.76	0.4465	5	13	no
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	no
Tripsacum lanceolatum	0.8706	0.0343	1110	473577	0.23	0.2786	10	377	yes
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum laxum	0.7865	0.0266	17968	533618	3.37	0.4111	5	13	yes

Supplementary Table 4.2d. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2041-2060 (2050) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Tripsacum maizar	0.923	0.0409	8469	207606	4.08	0.3823	5	11	yes
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum pilosum	0.9779	0.0129	0	133062	0.00	0.1485	10	55	yes
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum zopilotense	0.9813	0.005	130	72413	0.18	0.4035	5	18	yes
Vanilla planifolia	0.8945	0.0454	1407	452936	0.31	0.2479	10	73	yes
Vanilla pompona	0.8689	0.064	6351	351972	1.80	0.32	5	26	yes
Zea diploperennis	0.9827	0.0094	0	173163	0.00	0.0662	10	89	yes
Zea luxurians	0.9995	0.0002	65	1399	4.65	0.1686	5	12	yes
Zea mays subsp. *mexicana*	0.9421	0.0087	0	202024	0.00	0.2193	10	792	yes
Zea mays subsp. *parviglumis*	0.9561	0.0054	197	158648	0.12	0.1849	10	848	yes
Zea perennis	0.9837	0.011	801	94433	0.85	0.0955	5	47	yes

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Agave aktites	0.9927	-0.3979	NA	NA	NA	0.4256	5	13	no
Agave angustifolia	0.8622	0.0212	48	479788	0.01	0.3118	10	546	yes
Agave angustifolia var. *deweyana*	NA	NA	NA	NA	NA	NA	NA	6	no
Agave atrovirens	0.9611	0.0105	2245	165396	1.36	0.2279	5	21	yes
Agave congesta	0.928	0.0426	7539	12880	58.53	0.4052	5	11	no
Agave datylio	0.9726	0.0183	952	96052	0.99	0.1605	5	17	yes
Agave fourcroydes	0.9792	0.0148	1038	64811	1.60	0.14	5	38	yes
Agave hiemiflora	0.9882	0.009	632	66517	0.95	0.0876	5	21	yes
Agave hurteri	0.9361	0.0122	1087	191240	0.57	0.4712	5	11	yes
Agave karwinskii	0.9745	0.0155	197	129106	0.15	0.0649	10	52	yes
Agave kewensis	0.9952	0.0017	29	17424	0.17	0.6206	5	14	yes
Agave macroacantha	0.9799	0.0137	274	20626	1.33	0.212	5	32	yes
Agave macroculmis	0.937	0.0305	2581	260976	0.99	0.1935	5	23	yes
Agave mapisaga	0.8518	0.0698	83561	465551	17.95	0.2978	5	14	no
Agave rhodacantha	0.9159	0.044	1464	246340	0.59	0.3433	10	51	yes
Agave seemanniana	0.9709	0.0148	0	135018	0.00	0.1568	10	51	yes
Agave sisalana	0.8137	0.0834	40575	512063	7.92	0.4044	5	14	yes
Agave stringens	NA	NA	NA	NA	NA	NA	NA	1	no
Agave tequilana	0.9787	0.0093	290	96271	0.30	0.3579	5	22	yes
Amaranthus australis	0.9411	0.0259	923	210613	0.44	0.1096	5	31	yes
Amaranthus blitoides	0.6164	0.0809	NA	NA	NA	0.4542	5	14	no
Amaranthus caudatus	0.8434	0.0906	0	155059	0.00	0.2198	5	22	yes
Amaranthus crassipes	NA	NA	NA	NA	NA	NA	NA	9	no
Amaranthus cruentus	0.8782	0.0714	2257	211593	1.07	0.2991	10	66	yes
Amaranthus dubius	0.9253	0.0328	474	324100	0.15	0.1638	10	55	yes
Amaranthus fimbriatus	0.9374	0.0317	0	269245	0.00	0.2032	10	64	yes
Amaranthus greggii	0.9803	0.0099	0	97381	0.00	0.1224	10	116	yes
Amaranthus hybridus	0.8636	0.0198	517	495017	0.10	0.3376	10	667	yes
Amaranthus hypochondriacus	0.9227	0.0448	73	172690	0.04	0.2079	10	98	yes
Amaranthus palmeri	0.7819	0.0498	271	492266	0.06	0.3928	10	217	yes
Amaranthus polygonoides	0.6629	0.0923	NA	NA	NA	0.4506	5	36	no
Amaranthus powellii	0.9115	0.0349	483	356046	0.14	0.1763	10	94	yes
Amaranthus scariosus	0.9132	0.0423	652	199821	0.33	0.2147	5	48	yes
Amaranthus spinosus	0.8875	0.0181	5	544048	0.00	0.3113	10	477	yes
Amaranthus tamaulipensis	NA	NA	NA	NA	NA	NA	NA	4	no
Amaranthus torreyi	0.8928	0.0542	13	551401	0.00	0.1143	10	67	yes
Annona cherimola	0.9214	0.0187	13	319418	0.00	0.2209	10	340	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Annona glabra	0.958	0.0131	389	224186	0.17	0.1835	10	184	yes
Annona globiflora	0.9569	0.0102	145	134093	0.11	0.2089	10	374	yes
Annona longiflora	0.9572	0.0187	58	290813	0.02	0.1078	10	69	yes
Annona longipes	NA	NA	NA	NA	NA	NA	NA	3	no
Annona macroprophyllata	0.9249	0.034	142	287578	0.05	0.2347	10	65	yes
Annona muricata	0.9102	0.0209	1668	330934	0.50	0.3248	10	131	yes
Annona palmeri	NA	NA	NA	NA	NA	NA	NA	4	no
Annona purpurea	0.9503	0.0188	176	214657	0.08	0.2431	10	109	yes
Annona reticulata	0.8981	0.0145	301	475891	0.06	0.2796	10	516	yes
Annona liebmanniana	0.9621	0.0201	210	229187	0.09	0.1278	5	24	yes
Annona squamosa	0.936	0.0152	125	314387	0.04	0.1949	10	291	yes
Bixa orellana	0.9212	0.0132	286	402363	0.07	0.2791	10	273	yes
Byrsonima crassifolia	0.8936	0.0143	154	569060	0.03	0.2661	10	465	yes
Capsicum annuum var. *glabriusculum*	0.8242	0.0395	19	501734	0.00	0.3768	10	266	yes
Capsicum frutescens	0.8997	0.016	436	446341	0.10	0.3071	10	388	yes
Carica papaya	0.9005	0.0184	102	455684	0.02	0.2795	10	307	yes
Carya illinoinensis	0.8171	0.0465	1288	468105	0.28	0.3718	10	141	yes
Carya myristiciformis	0.9093	0.0553	24171	160989	15.01	0.2152	5	26	no
Carya ovata	0.9618	0.0188	336	181472	0.19	0.105	10	101	yes
Carya palmeri	0.9138	0.0514	3775	83112	4.54	0.3442	5	42	yes
Crataegus mexicana	0.9421	0.019	0	185453	0.00	0.2047	10	251	yes
Crataegus tracyi var. *coahuilensis*	NA	NA	NA	NA	NA	NA	NA	6	no
Crataegus uniflora	NA	NA	NA	NA	NA	NA	NA	3	no
Cucurbita argyrosperma	0.8148	0.0377	397	527185	0.08	0.3767	10	225	yes
Cucurbita argyrosperma subsp. *sororia*	0.8585	0.0232	89	584041	0.02	0.258	10	465	yes
Cucurbita cordata	0.9553	0.0195	255	148516	0.17	0.174	10	94	yes
Cucurbita digitata	0.9205	0.0264	1242	251357	0.49	0.2829	10	92	yes
Cucurbita foetidissima	0.8153	0.0391	946	537603	0.18	0.3864	10	242	yes
Cucurbita lundelliana	0.9591	0.0154	0	287769	0.00	0.093	10	77	yes
Cucurbita okeechobeensis subsp. *martinezii*	0.9293	0.0374	871	164179	0.53	0.1479	10	116	yes
Cucurbita palmata	0.9539	0.0181	5908	249797	2.37	0.1132	5	37	yes
Cucurbita pedatifolia	0.9304	0.0272	178	280782	0.06	0.2683	10	85	yes
Cucurbita pepo subsp. *fraterna*	0.9829	0.0107	0	115792	0.00	0.3059	5	15	yes
Cucurbita radicans	0.9576	0.0138	662	248989	0.27	0.193	10	83	yes
Diospyros conzattii	0.9576	0.0138	8585	87994	9.76	0.193	5	31	yes
Diospyros johnstoniana	NA	NA	NA	NA	NA	NA	NA	2	no
Diospyros rosei	NA	NA	NA	NA	NA	NA	NA	2	no

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Gossypium aridum	0.929	0.0309	49	190363	0.03	0.1822	10	212	yes
Gossypium barbadense	0.8744	0.0532	808	419912	0.19	0.3294	10	80	yes
Gossypium gossypioides	0.9351	0.0405	1559	88437	1.76	0.1784	5	45	yes
Gossypium hirsutum	0.8448	0.0193	0	528480	0.00	0.3226	10	931	yes
Gossypium schwendimanii	NA	NA	NA	NA	NA	NA	NA	9	no
Gossypium thurberi	0.8915	0.0749	3121	195060	1.60	0.1781	5	39	yes
Helianthus annuus	0.7106	0.0634	992	470418	0.21	0.4646	10	156	yes
Helianthus californicus	0.9797	0.0097	2262	54944	4.12	0.2958	5	12	yes
Helianthus ciliaris	0.7835	0.0678	361	656546	0.05	0.4489	5	17	yes
Helianthus gracilentus	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus hirsutus	NA	NA	NA	NA	NA	NA	NA	4	no
Helianthus laciniatus	0.8931	0.0346	913	374056	0.24	0.3487	10	102	yes
Helianthus niveus	0.9429	0.031	444	245392	0.18	0.101	10	107	yes
Helianthus niveus subsp. *niveus*	NA	NA	NA	NA	NA	NA	NA	7	no
Helianthus niveus subsp. *tephrodes*	NA	NA	NA	NA	NA	NA	NA	5	no
Hylocereus ocamponis	0.9159	0.0244	5115	326277	1.57	0.3271	5	49	yes
Ipomoea batatas	0.8824	0.0321	319	407253	0.08	0.3087	10	222	yes
Ipomoea leucantha	0.7629	0.0958	7	433227	0.00	0.5343	5	13	yes
Ipomoea tabascana	NA	NA	NA	NA	NA	NA	NA	1	no
Ipomoea tiliacea	0.889	0.0397	778	377241	0.21	0.3058	10	184	yes
Ipomoea trifida	0.8833	0.027	503	472715	0.11	0.26	10	467	yes
Ipomoea triloba	0.848	0.0388	2642	477950	0.55	0.337	10	184	yes
Jacaratia dolichaula	0.9736	0.0152	0	112016	0.00	0.0977	10	111	yes
Jacaratia mexicana	0.9402	0.0194	7	276713	0.00	0.1648	10	252	yes
Jarilla caudata	0.9738	0.0126	1153	227874	0.51	0.2608	5	21	yes
Jarilla heterophylla	0.9236	0.0505	48	226504	0.02	0.1969	10	55	yes
Jatropha andrieuxii	0.9734	0.0138	0	77727	0.00	0.4276	5	17	yes
Jatropha bartlettii	NA	NA	NA	NA	NA	NA	NA	2	no
Jatropha mcvaughii	0.9378	0.0231	464	271686	0.17	0.3021	5	12	yes
Jatropha pseudocurcas	NA	NA	NA	NA	NA	NA	NA	8	no
Jatropha rufescens	NA	NA	NA	NA	NA	NA	NA	4	no
Leucaena confertiflora	0.9756	0.014	264	223128	0.12	0.0905	10	50	yes
Leucaena diversifolia	0.9361	0.0121	0	247939	0.00	0.1941	10	443	yes
Leucaena esculenta	0.9088	0.017	504	298108	0.17	0.2842	10	489	yes
Leucaena lanceolata	0.9265	0.0168	0	274863	0.00	0.1931	10	496	yes
Leucaena leucocephala	0.8567	0.0163	1	523674	0.00	0.3173	10	935	yes
Manihot aesculifolia	0.8795	0.0312	630	434834	0.14	0.3134	10	218	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Manihot angustiloba	0.7974	0.0624	779	435916	0.18	0.3668	10	120	yes
Manihot auriculata	NA	NA	NA	NA	NA	NA	NA	6	no
Manihot caudata	0.8219	0.0757	2355	437119	0.54	0.2582	10	106	yes
Manihot chlorosticta	0.9412	0.0263	14	216300	0.01	0.1131	10	221	yes
Manihot crassisepala	0.8538	0.093	21386	291108	7.35	0.3601	5	31	yes
Manihot davisiae	0.9147	0.0473	1314	225562	0.58	0.1821	5	40	yes
Manihot foetida	0.8778	0.0664	623	327298	0.19	0.3773	5	19	yes
Manihot michaelis	0.9612	0.0212	2	361008	0.00	0.0864	5	31	yes
Manihot oaxacana	0.9672	0.0215	2	114197	0.00	0.0533	10	116	yes
Manihot obovata	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot pauciflora	0.9594	0.0224	0	99506	0.00	0.1609	10	52	yes
Manihot pringlei	0.9341	0.0352	31	288555	0.01	0.1671	10	53	yes
Manihot rhomboidea	0.8729	0.0408	13	519578	0.00	0.2004	10	95	yes
Manihot rhomboidea subsp. *microcarpa*	0.916	0.0325	193	369920	0.05	0.2038	10	73	yes
Manihot rubricaulis	0.8757	0.0454	1698	283631	0.60	0.3547	10	117	yes
Manihot rubricaulis subsp. *isoloba*	0.8622	0.0942	3911	279146	1.40	0.2634	5	29	yes
Manihot rubricaulis subsp. *rubricaulis*	NA	NA	NA	NA	NA	NA	NA	3	no
Manihot subspicata	0.8769	0.0732	12571	140268	8.96	0.3282	5	24	yes
Manihot tomatophylla	0.9326	0.0434	0	194226	0.00	0.0718	5	39	yes
Manihot walkerae	0.9295	0.0301	9362	121613	7.70	0.558	5	12	yes
Manilkara chicle	0.9745	0.0117	399	104650	0.38	0.2153	5	39	yes
Manilkara zapota	0.9088	0.0125	20	435208	0.00	0.2449	10	466	yes
Opuntia atropes	0.9296	0.0355	455	369616	0.12	0.1497	10	53	yes
Opuntia crassa	NA	NA	NA	NA	NA	NA	NA	4	no
Opuntia deamii	NA	NA	NA	NA	NA	NA	NA	2	no
Opuntia eichlamii	NA	NA	NA	NA	NA	NA	NA	1	no
Opuntia ficus-indica	0.8564	0.059	1649	260304	0.63	0.3295	10	123	yes
Opuntia hyptiacantha	0.9569	0.0181	698	157873	0.44	0.1777	10	136	yes
Opuntia lasiacantha	0.9455	0.0164	531	202548	0.26	0.226	10	140	yes
Opuntia spinulifera	0.9563	0.0348	1289	119159	1.08	0.1517	5	25	yes
Opuntia streptacantha	0.9255	0.022	35	234612	0.01	0.2246	10	254	yes
Opuntia undulata	0.9068	0.0315	2724	446059	0.61	0.3755	5	17	yes
Opuntia velutina	0.9133	0.0336	112	448930	0.02	0.224	10	67	yes
Opuntia wilcoxii	0.896	0.0538	16196	182963	8.85	0.2872	5	30	yes
Pachyrhizus erosus	0.8989	0.0176	247	383340	0.06	0.3349	10	245	yes
Pachyrhizus ferrugineus	0.9197	0.0406	14902	349804	4.26	0.1989	5	25	yes
Persea americana	0.8798	0.0209	2	449535	0.00	0.2851	10	634	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Persea schiedeana	0.9798	0.0097	0	186294	0.00	0.0738	10	62	yes
Phaseolus acutifolius	0.7869	0.0342	219	603098	0.04	0.3941	10	452	yes
Phaseolus acutifolius var. *acutifolius*	0.8053	0.0392	1703	541834	0.31	0.3564	10	346	yes
Phaseolus acutifolius var. *tenuifolius*	0.8598	0.047	273	430935	0.06	0.2995	10	103	yes
Phaseolus albescens	0.9827	0.0073	1536	103078	1.49	0.2136	5	18	yes
Phaseolus angustissimus	NA	NA	NA	NA	NA	NA	NA	3	no
Phaseolus carteri	0.915	0.0508	38669	81411	47.50	0.3128	5	11	no
Phaseolus coccineus	0.8557	0.0111	0	470977	0.00	0.2823	10	1843	yes
Phaseolus coccineus subsp. *coccineus*	0.8966	0.0212	0	397496	0.00	0.2518	10	328	yes
Phaseolus dumosus	0.9333	0.0321	277	186302	0.15	0.1495	10	148	yes
Phaseolus filiformis	0.9314	0.016	0	230222	0.00	0.2162	10	564	yes
Phaseolus maculatus subsp. *ritensis*	0.9037	0.0281	0	2496121	0.00	0.2846	10	128	yes
Phaseolus parvifolius	0.8686	0.0546	7	347023	0.00	0.3603	10	83	yes
Phaseolus vulgaris	0.7784	0.0119	0	591091	0.00	0.3984	10	2846	yes
Phaseolus vulgaris var. *aborigineus*	0.8809	0.0629	4627	363921	1.27	0.1827	5	25	yes
Physalis acutifolia	0.8818	0.0536	911	374510	0.24	0.2231	10	94	yes
Physalis ampla	0.7403	0.0879	9419	788632	1.19	0.446	5	15	yes
Physalis angulata	0.7847	0.077	0	369461	0.00	0.4687	10	82	yes
Physalis crassifolia	0.9064	0.0296	125	477683	0.03	0.1968	10	67	yes
Physalis lagascae	0.9021	0.0406	8	285325	0.00	0.212	10	92	yes
Physalis microcarpa	NA	NA	NA	NA	NA	NA	NA	4	no
Physalis philadelphica	0.8404	0.0295	480	494864	0.10	0.3177	10	371	yes
Physalis sulphurea	0.9588	0.0282	0	129604	0.00	0.2033	10	55	yes
Pinus ayacahuite	0.9328	0.0321	1222	281467	0.43	0.1563	5	48	yes
Pinus cembroides	0.8947	0.0228	0	415790	0.00	0.2488	10	433	yes
Pinus maximartinezii	0.9805	0.0119	1119	22629	4.94	0.6542	5	14	yes
Pinus monophylla	0.9935	0.0034	2587	38147	6.78	0.112	5	20	yes
Pinus quadrifolia	0.9973	0.0009	13	11806	0.11	0.2441	5	19	yes
Pithecellobium dulce	0.8336	0.0115	0	641373	0.00	0.3357	10	1835	yes
Porophyllum gracile	0.9442	0.0247	189	193598	0.10	0.233	10	173	yes
Porophyllum linaria	0.9254	0.0264	1022	221510	0.46	0.3445	10	105	yes
Porophyllum ruderale	0.8341	0.0404	335	507686	0.07	0.3726	10	210	yes
Porophyllum scoparium	0.906	0.0395	2554	252881	1.01	0.2985	10	83	yes
Porophyllum warnockii	NA	NA	NA	NA	NA	NA	NA	3	no
Portulaca halimoides	0.7441	-0.5543	NA	NA	NA	0.4967	5	10	no
Portulaca umbraticola	0.8358	0.071	115623	357181	32.37	0.3833	5	18	no
Pouteria belizensis	NA	NA	NA	NA	NA	NA	NA	1	no

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Pouteria campechiana	0.9187	0.0218	505	372982	0.14	0.2461	10	184	yes
Pouteria durlandii	0.9706	0.0123	0	291138	0.00	0.0632	5	41	yes
Pouteria glomerata	0.9836	0.0068	860	213393	0.40	0.2699	5	18	yes
Pouteria reticulata	0.9747	0.007	5	152102	0.00	0.2082	10	84	yes
Pouteria rhynchocarpa	NA	NA	NA	NA	NA	NA	NA	3	no
Pouteria sapota	0.9245	0.0257	7074	392624	1.80	0.1926	5	46	yes
Pouteria torta	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium friedrichsthalianum	NA	NA	NA	NA	NA	NA	NA	3	no
Psidium guajava	0.8345	0.028	881	622418	0.14	0.3576	10	319	yes
Psidium guineense	0.9535	0.0242	0	256340	0.00	0.1138	10	75	yes
Psidium oligospermum	0.8963	0.0282	281	372954	0.08	0.3168	10	180	yes
Psidium salutare	NA	NA	NA	NA	NA	NA	NA	5	no
Salvia axillaris	0.9394	0.0313	45	249122	0.02	0.2137	10	51	yes
Salvia candicans	0.9381	0.047	80148	61876	129.53	0.2642	5	19	no
Salvia carnea	0.9247	0.0397	354	199618	0.18	0.1924	10	61	yes
Salvia cinnabarina	0.9564	0.0204	0	236622	0.00	0.1105	10	84	yes
Salvia coccinea	0.9111	0.016	17	347219	0.00	0.2924	10	402	yes
Salvia columbariae	0.9736	0.0104	727	180864	0.40	0.1202	5	37	yes
Salvia elegans	0.9224	0.0143	60	297235	0.02	0.2146	10	567	yes
Salvia fluviatilis	0.8197	0.0631	0	401832	0.00	0.53	5	10	yes
Salvia helianthemifolia	0.9697	0.0127	12	178367	0.01	0.1743	5	36	yes
Salvia hispanica	0.8812	0.042	431	332226	0.13	0.2825	10	127	yes
Salvia laevis	0.9776	0.0067	89	125006	0.07	0.153	10	128	yes
Salvia lasiantha	0.9174	0.0612	2065	218095	0.95	0.1423	5	20	yes
Salvia lasiocephala	0.8651	0.0531	1802	274958	0.66	0.3187	10	107	yes
Salvia leucantha	0.8805	0.0634	15879	345404	4.60	0.3505	5	18	yes
Salvia longispicata	0.8896	0.0459	23326	286159	8.15	0.3205	5	28	yes
Salvia longistyla	0.9755	0.0113	3548	85165	4.17	0.297	5	20	yes
Salvia mexicana	0.9071	0.0273	456	450200	0.10	0.1774	10	186	yes
Salvia microphylla	0.8992	0.017	92	315732	0.03	0.3015	10	548	yes
Salvia misella	0.8449	0.0465	2913	472438	0.62	0.2709	10	113	yes
Salvia mocinoi	0.9432	0.0211	37	231650	0.02	0.1653	10	105	yes
Salvia oaxacana	0.9375	0.0486	25860	54061	47.83	0.3618	5	19	no
Salvia occidentalis	0.879	0.0364	337	370992	0.09	0.2472	10	211	yes
Salvia patens	0.9396	0.0282	4280	212798	2.01	0.1789	5	45	yes
Salvia polystachia	0.9317	0.0248	729	223060	0.33	0.1977	10	108	yes
Salvia prunelloides	0.9226	0.0324	12	233800	0.01	0.3005	10	53	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Salvia purpurea	0.9323	0.0143	0	277306	0.00	0.2174	10	402	yes
Salvia recurva	0.969	0.0222	6323	68284	9.26	0.2356	5	13	yes
Salvia regla	0.8913	0.0388	771	397964	0.19	0.336	10	80	yes
Salvia sanctae-luciae	0.9963	0.0018	1613	15323	10.53	0.3283	5	13	no
Salvia setulosa	0.9189	0.0383	1255	266137	0.47	0.4544	5	13	yes
Salvia splendens	NA	NA	NA	NA	NA	NA	NA	1	no
Salvia stricta	NA	NA	NA	NA	NA	NA	NA	7	no
Salvia thyrsiflora	0.9689	0.0129	70	177194	0.04	0.0864	10	131	yes
Salvia tiliifolia	0.8578	0.0256	905	550766	0.16	0.3095	10	340	yes
Sechium chinantlense	0.9729	0.0194	2391	67143	3.56	0.2229	5	22	yes
Sechium compositum	0.9814	0.014	504	22011	2.29	0.2269	5	32	yes
Sechium edule subsp. *sylvestre*	0.9624	0.0261	955	153757	0.62	0.119	5	32	yes
Sechium hintonii	0.9602	0.0078	16243	218915	7.42	0.3543	5	15	yes
Simmondsia chinensis	0.9435	0.0201	458	224694	0.20	0.2117	10	212	yes
Solanum bulbocastanum	0.9177	0.0191	78	311291	0.03	0.216	10	442	yes
Solanum cardiophyllum	0.8382	0.0507	229	322526	0.07	0.3253	10	241	yes
Solanum clarum	0.9837	0.0113	1348	119671	1.13	0.1221	5	12	yes
Solanum demissum	0.8777	0.0253	549	236651	0.23	0.1989	10	683	yes
Solanum ehrenbergii	0.9111	0.0333	1437	278220	0.52	0.2342	10	179	yes
Solanum guerreroense	NA	NA	NA	NA	NA	NA	NA	9	no
Solanum hintonii	0.8304	0.0857	23970	290386	8.25	0.3986	5	22	yes
Solanum hjertingii	0.8442	0.0785	2545	415839	0.61	0.2274	10	81	yes
Solanum hougasii	0.9516	0.0271	8	159795	0.01	0.1196	10	86	yes
Solanum iopetalum	0.9142	0.0258	786	282544	0.28	0.1775	10	379	yes
Solanum morelliforme	0.9266	0.0378	392	145338	0.27	0.219	10	127	yes
Solanum oxycarpum	0.9266	0.0385	21	141247	0.01	0.1956	10	81	yes
Solanum pinnatisectum	0.898	0.0556	870	100541	0.87	0.2167	10	108	yes
Solanum polyadenium	0.8935	0.0539	1786	201260	0.89	0.2654	10	116	yes
Solanum schenckii	0.9272	0.0391	26	293810	0.01	0.1843	10	58	yes
Solanum stenophyllidium	0.8958	0.037	1225	364961	0.34	0.2099	10	162	yes
Solanum stoloniferum	0.8489	0.0165	16	563690	0.00	0.2812	10	1211	yes
Solanum tarnii	0.9455	0.0417	167	66695	0.25	0.3342	5	38	yes
Solanum trifidum	0.9467	0.0348	241	104148	0.23	0.1549	10	129	yes
Solanum verrucosum	0.8939	0.0246	102	320002	0.03	0.2077	10	523	yes
Spondias mombin	0.8927	0.0205	25	436242	0.01	0.3079	10	227	yes
Spondias purpurea	0.8706	0.0287	750	438222	0.17	0.341	10	206	yes
Stenocereus alamosensis	0.9311	0.0418	665	179673	0.37	0.1772	5	46	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	**ATAUC**[1]	**STAUC**[2]	**pixels >0.15**	**pixels <0.15**	**ASD15**[3]	**Threshold**[4]	**Replicates**[5]	**Observations**[6]	**Valid**
Stenocereus beneckei	0.9919	0.0039	0	80962	0.00	0.085	5	25	yes
Stenocereus chrysocarpus	0.9637	0.0208	965	70372	1.37	0.4003	5	17	yes
Stenocereus eichlamii	NA	NA	NA	NA	NA	NA	NA	9	no
Stenocereus eruca	0.9399	0.0459	2716	126158	2.15	0.1268	5	26	yes
Stenocereus fricii	0.9881	0.0056	1174	64947	1.81	0.2437	5	13	yes
Stenocereus griseus	0.916	0.0478	55	325804	0.02	0.189	10	51	yes
Stenocereus gummosus	0.9737	0.0096	0	195532	0.00	0.0899	10	84	yes
Stenocereus kerberi	0.9678	0.02	707	148081	0.48	0.2062	5	12	yes
Stenocereus martinezii	NA	NA	NA	NA	NA	NA	NA	4	no
Stenocereus montanus	0.921	0.0336	9013	177224	5.09	0.3129	5	24	yes
Stenocereus pruinosus	0.9192	0.0312	2712	262209	1.03	0.2169	10	110	yes
Stenocereus queretaroensis	0.9483	0.0219	43	326052	0.01	0.1385	10	66	yes
Stenocereus quevedonis	0.9816	0.0097	69	122122	0.06	0.072	5	16	yes
Stenocereus standleyi	0.9093	0.015	24155	258540	9.34	0.3235	5	18	yes
Stenocereus stellatus	0.9635	0.0232	1	161956	0.00	0.1445	10	64	yes
Stenocereus thurberi	0.9388	0.0231	111	280309	0.04	0.2079	10	96	yes
Stenocereus treleasei	0.9904	0.006	1539	23194	6.64	0.2887	5	19	yes
Tagetes erecta	0.8495	0.0162	6	665996	0.00	0.3172	10	801	yes
Tagetes filifolia	0.882	0.0355	1779	475930	0.37	0.1963	10	173	yes
Tagetes foetidissima	0.9451	0.0192	255	256174	0.10	0.1386	10	102	yes
Tagetes hartwegii	NA	NA	NA	NA	NA	NA	NA	2	no
Tagetes lucida	0.8687	0.0205	70	491988	0.01	0.3254	10	468	yes
Tagetes micrantha	0.9097	0.0208	755	381176	0.20	0.274	10	259	yes
Tagetes pringlei	0.949	0.0196	0	312603	0.00	0.1668	10	63	yes
Tagetes stenophylla	0.9767	0.0113	0	140267	0.00	0.129	10	51	yes
Tagetes subulata	0.9059	0.0206	579	428750	0.14	0.2353	10	248	yes
Theobroma cacao	0.9292	0.0343	874	520630	0.17	0.0922	10	80	yes
Tripsacum andersonii	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum bravum	0.9809	0.0101	2034	75316	2.70	0.3262	5	18	yes
Tripsacum dactyloides var. *dactyloides*	NA	NA	NA	NA	NA	NA	NA	4	no
Tripsacum dactyloides var. *hispidum*	0.9164	0.0361	0	271487	0.00	0.2071	10	186	yes
Tripsacum dactyloides var. *mexicanum*	0.9122	0.0387	6140	337021	1.82	0.2081	5	28	yes
Tripsacum intermedium	0.7925	0.0731	61196	244798	25.00	0.4496	5	13	no
Tripsacum jalapense	NA	NA	NA	NA	NA	NA	NA	8	no
Tripsacum lanceolatum	0.8014	0.0389	772	648367	0.12	0.3763	10	377	yes
Tripsacum latifolium	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum laxum	0.7851	0.0254	15258	597029	2.56	0.3865	5	13	yes

Supplementary Table 4.2e. Validation criteria of the species distribution models of Mexican crop wild relatives under RCP8.5 emissions scenario for the years 2061-2080 (2070) (continued)

CWR taxa	ATAUC[1]	STAUC[2]	pixels >0.15	pixels <0.15	ASD15[3]	Threshold[4]	Replicates[5]	Observations[6]	Valid
Tripsacum maizar	0.9255	0.04	1	226318	0.00	0.3617	5	11	yes
Tripsacum manisuroides	NA	NA	NA	NA	NA	NA	NA	9	no
Tripsacum pilosum	0.868	0.053	2553	378590	0.67	0.2126	10	55	yes
Tripsacum pilosum var. *guatemalense*	NA	NA	NA	NA	NA	NA	NA	1	no
Tripsacum zopilotense	0.983	0.0046	116	64180	0.18	0.4077	5	18	yes
Vanilla planifolia	0.8859	0.049	2045	466034	0.44	0.2483	10	73	yes
Vanilla pompona	0.8755	0.0609	5212	370734	1.41	0.3132	5	26	yes
Zea diploperennis	0.9868	0.0072	0	174508	0.00	0.0375	10	89	yes
Zea luxurians	0.9993	0.0003	86	1932	4.45	0.1552	5	12	yes
Zea mays subsp. *mexicana*	0.9446	0.0085	0	190594	0.00	0.2291	10	792	yes
Zea mays subsp. *parviglumis*	0.9584	0.005	186	135953	0.14	0.2079	10	848	yes
Zea perennis	0.9851	0.0107	169	43069	0.39	0.1327	5	47	yes

1 Average Area Under the Test ROC Curve
2 ATAUC standard deviation
3 Proportion of potential distribution where the standard deviation is greater than 0.15 (%)
4 Maximum training sensitivity plus specificity logistic threshold
5 Number of replicates used to test the model
6 Number of occurrences used for each model

Conditions: ATAUC >0.7, STAUC <0.15 and ASD15 <10%

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070)

			RCP4.5, 2050					RCP4.5, 2070				
CWR taxa	Crop gene pool	Current area (Km^2)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Agave angustifolia	Agave	347,164.4	56,393.1	16.2	42,611.3	12.3	3.97	45,589.1	13.1	68,152.7	19.6	-6.5
Agave atrovirens	Agave	131,089.7	6,207.5	4.7	9,117.2	7.0	-2.2	12,283.8	9.4	6,315.8	4.8	4.6
Agave datylio	Agave	84,643.8	1,854.5	2.2	11,318.7	13.4	-11.2	359.4	0.4	28,469.2	33.6	-33.2
Agave fourcroydes	Agave	72,206.7	9,748.8	13.5	20,667.9	28.6	-15.1	9,065.5	12.6	18,843.1	26.1	-13.5
Agave hiemiflora	Agave	79,372.6	7,286.7	9.2	28,012.1	35.3	-26.1	1,722.2	2.2	37,605.6	47.4	-45.2
Agave hurteri	Agave	149,072.1	15,262.5	10.2	8,970.6	6.0	4.2	31,436.4	21.1	8,538.4	5.7	15.4
Agave karwinskii	Agave	95,235.1	21,221.8	22.3	11,555.4	12.1	10.2	20,859.5	21.9	10,206.0	10.7	11.2
Agave kewensis	Agave	35,330.4	25,045.8	70.9	10,747.5	30.4	40.5	26,277.4	74.4	3,848.0	10.9	63.5
Agave macroacantha	Agave	62,753.0	903.8	1.4	44,483.1	70.9	-69.4	847.2	1.4	48,560.1	77.4	-76.0
Agave macroculmis	Agave	157,708.3	29,740.1	18.9	9,308.0	5.9	13.0	49,195.5	31.2	2,472.7	1.6	29.6
Agave rhodacantha	Agave	224,570.0	36,534.1	16.3	28,124.2	12.5	3.7	38,242.0	17.0	31,350.2	14.0	3.1
Agave seemanniana	Agave	145,333.4	786.8	0.5	53,786.3	37.0	-36.5	23,942.7	16.5	17,218.6	11.8	4.6
Agave sisalana	Agave	437,869.1	25,303.6	5.8	65,413.6	14.9	-9.2	4,225.6	1.0	84,095.6	19.2	-18.2
Agave tequilana	Agave	107,107.7	2,352.9	2.2	41,768.0	39.0	-36.8	6,028.3	5.6	53,254.4	49.7	-44.1
Amaranthus australis	Amaranth	359,395.5	14,791.9	4.1	91,850.0	25.6	-21.4	6,012.0	1.7	185,333.1	51.6	-49.9
Amaranthus caudatus	Amaranth	358,534.9	366.1	0.1	202,525.8	56.5	-56.4	67.1	0.0	243,097.7	67.8	-67.8
Amaranthus cruentus	Amaranth	262,096.0	48,712.5	18.6	27,342.1	10.4	8.2	25,579.6	9.8	60,701.1	23.2	-13.4
Amaranthus dubius	Amaranth	282,651.8	2,416.1	0.9	51,759.3	18.3	-17.5	497.4	0.2	60,592.8	21.4	-21.3
Amaranthus fimbriatus	Amaranth	196,640.3	75,710.6	38.5	480.2	0.2	38.3	54,849.1	27.9	4,132.6	2.1	25.8
Amaranthus hybridus	Amaranth	401,462.5	73,783.2	18.4	48,678.0	12.1	6.3	59,884.6	14.9	61,094.1	15.2	-0.3
Amaranthus hypochondriacus	Amaranth	116,211.5	41,279.2	35.5	11,450.0	9.9	25.7	33,348.4	28.7	14,240.8	12.3	16.4
Amaranthus palmeri	Amaranth	408,178.9	57,409.0	14.1	46,003.1	11.3	2.8	53,487.2	13.1	74,342.9	18.2	-5.1
Amaranthus powellii	Amaranth	277,407.4	37,373.7	13.5	28,976.2	10.4	3.0	33,396.3	12.0	36,860.0	13.3	-1.2
Amaranthus scariosus	Amaranth	234,838.2	5,386.2	2.3	62,207.7	26.5	-24.2	19,193.8	8.2	45,331.3	19.3	-11.1
Amaranthus spinosus	Amaranth	355,820.7	113,877.8	32.0	33,088.7	9.3	22.7	85,031.0	23.9	51,705.6	14.5	9.4
Amaranthus torreyi	Amaranth	373,438.9	39,915.4	10.7	39,472.6	10.6	0.1	29,305.9	7.8	57,060.2	15.3	-7.4
Annona cherimola	Annona	249,278.4	34,162.1	13.7	32,959.3	13.2	0.5	60,356.1	24.2	20,297.0	8.1	16.1
Annona glabra	Annona	143,080.2	21,470.0	15.0	27,681.4	19.3	-4.3	35,149.3	24.6	14,753.6	10.3	14.3
Annona globiflora	Annona	113,466.7	9,634.8	8.5	10,629.6	9.4	-0.9	16,394.4	14.4	6,820.0	6.0	8.4
Annona longiflora	Annona	208,872.3	16,626.3	8.0	31,513.1	15.1	-7.1	18,667.7	8.9	50,831.5	24.3	-15.4
Annona reticulata	Annona	355,417.2	50,907.2	14.3	29,466.9	8.3	6.0	75,578.3	21.3	21,175.8	6.0	15.3
Annona macroprophyllata	Annona	279,142.1	6,212.3	2.2	61,173.6	21.9	-19.7	28,830.5	10.3	32,055.5	11.5	-1.2
Annona muricata	Annona	288,369.6	24,922.2	8.6	50,918.7	17.7	-9.0	25,155.1	8.7	48,341.6	16.8	-8.0
Annona purpurea	Annona	210,254.4	39,067.2	18.6	37,428.3	17.8	0.8	33,016.8	15.7	55,809.4	26.5	-10.8
Annona liebmanniana	Annona	184,158.1	16,977.1	9.2	25,965.9	14.1	-4.9	13,099.4	7.1	20,225.1	11.0	-3.9
Annona squamosa	Annona	226,869.2	24,764.1	10.9	25,513.5	11.2	-0.3	49,811.8	22.0	11,572.7	5.1	16.9
Bixa orellana	Annatto	325,208.5	14,705.7	4.5	54,360.3	16.7	-12.2	39,443.8	12.1	16,878.4	5.2	6.9
Byrsonima crassifolia	Nance	446,745.8	44,356.6	9.9	11,760.5	2.6	7.3	29,264.7	6.6	24,989.3	5.6	1.0

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050					RCP4.5, 2070				
CWR taxa	**Crop gene pool**	**Current area (Km^2)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**
Capsicum annuum var. *glabriusculum*	Chili pepper	411,299.5	69,787.7	17.0	95,840.8	23.3	-6.3	82,239.2	20.0	88,919.2	21.6	-1.6
Capsicum frutescens	Chili pepper	319,355.5	53,514.1	16.8	45,831.6	14.4	2.4	54,057.5	16.9	44,239.7	13.9	3.1
Carica papaya	Papaya	363,987.2	33,323.5	9.2	34,798.5	9.6	-0.4	40,451.1	11.1	24,502.4	6.7	4.4
Carya illinoinensis	Pecan	313,499.7	79,186.7	25.3	35,124.3	11.2	14.1	99,641.8	31.8	26,318.6	8.4	23.4
Carya ovata	Pecan	139,544.7	43,699.1	31.3	9,465.1	6.8	24.5	40,625.5	29.1	14,399.0	10.3	18.8
Carya palmeri	Pecan	105,364.4	54,826.1	52.0	4,648.2	4.4	47.6	6,895.7	6.5	20,073.7	19.1	-12.5
Crataegus mexicana	Mexican hawthorn	143,289.2	8,271.9	5.8	17,229.1	12.0	-6.3	25,455.1	17.8	10,139.9	7.1	10.7
Cucurbita argyrosperma	Pumpkin, squash, cushaw	407,844.4	92,026.4	22.6	28,085.9	6.9	15.7	52,326.6	12.8	48,144.2	11.8	1.0
Cucurbita argyrosperma subsp. *sororia*	Pumpkin, squash, cushaw	432,587.4	18,918.8	4.4	50,563.2	11.7	-7.3	22,646.9	5.2	60,114.6	13.9	-8.7
Cucurbita cordata	Pumpkin, squash, cushaw	110,456.4	3,411.9	3.1	8,125.3	7.4	-4.3	21,182.5	19.2	4,837.0	4.4	14.8
Cucurbita digitata	Pumpkin, squash, cushaw	181,434.4	22,877.0	12.6	7,485.1	4.1	8.5	30,198.2	16.6	9,748.8	5.4	11.3
Cucurbita foetidissima	Pumpkin, squash, cushaw	434,480.2	31,174.8	7.2	102,855.3	23.7	-16.5	96,794.4	22.3	42,955.4	9.9	12.4
Cucurbita lundelliana	Pumpkin, squash, cushaw	187,596.9	24,615.5	13.1	4,517.9	2.4	10.7	21,165.3	11.3	12,304.9	6.6	4.7
Cucurbita okeechobeensis subsp. *martinezii*	Pumpkin, squash, cushaw	111,646.7	23,403.1	21.0	18,784.6	16.8	4.1	29,182.3	26.1	20,525.1	18.4	7.8
Cucurbita palmata	Pumpkin, squash, cushaw	217,454.8	3,739.7	1.7	19,482.3	9.0	-7.2	1.0	0.0	57,390.8	26.4	-26.4
Cucurbita pedatifolia	Pumpkin, squash, cushaw	189,112.1	67,234.5	35.6	5,920.0	3.1	32.4	74,223.2	39.2	7,069.1	3.7	35.5
Cucurbita pepo subsp. *fraterna*	Pumpkin, squash, cushaw	122,216.9	4,975.0	4.1	36,089.4	29.5	-25.5	8,388.9	6.9	27,780.1	22.7	-15.9
Cucurbita radicans	Pumpkin, squash, cushaw	228,044.1	15,273.0	6.7	23,186.5	10.2	-3.5	19,517.8	8.6	26,189.2	11.5	-2.9
Gossypium aridum	Cotton	187,104.3	8,060.1	4.3	44,596.2	23.8	-19.5	12,018.3	6.4	36,024.3	19.3	-12.8
Gossypium barbadense	Cotton	392,228.3	34,848.3	8.9	37,717.8	9.6	-0.7	43,211.3	11.0	39,604.8	10.1	0.9
Gossypium gossypioides	Cotton	92,109.7	29,372.0	31.9	7,632.7	8.3	23.6	35,669.7	38.7	6,650.3	7.2	31.5
Gossypium hirsutum	Cotton	467,825.8	17,635.5	3.8	63,010.8	13.5	-9.7	31,958.7	6.8	44,124.7	9.4	-2.6
Gossypium thurberi	Cotton	218,072.0	10,050.7	4.6	28,236.3	12.9	-8.3	10,608.5	4.9	27,625.8	12.7	-7.8
Helianthus annuus	Sunflower	337,631.2	74,356.4	22.0	97,375.2	28.8	-6.8	141,487.4	41.9	78,071.1	23.1	18.8
Helianthus californicus	Sunflower	23,616.8	2,460.2	10.4	1,307.3	5.5	4.9	2,842.6	12.0	2,258.9	9.6	2.5
Helianthus ciliaris	Sunflower	435,298.7	18,476.0	4.2	32,643.0	7.5	-3.3	17,661.4	4.1	29,753.5	6.8	-2.8

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050						RCP4.5, 2070				
CWR taxa	Crop gene pool	Current area (Km^2)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Helianthus laciniatus	Sunflower	384,258.3	9,024.3	2.3	119,711.6	31.2	-28.8	35,964.9	9.4	50,990.6	13.3	-3.9
Helianthus niveus	Sunflower	155,153.2	39,923.0	25.7	9,197.7	5.9	19.8	53,399.1	34.4	9,515.0	6.1	28.3
Hylocereus ocamponis	Pitahaya	220,175.7	47,470.4	21.6	5,795.4	2.6	18.9	54,404.4	24.7	10,631.5	4.8	19.9
Ipomoea batatas	Sweet-potato	274,377.9	39,065.3	14.2	62,093.7	22.6	-8.4	29,125.7	10.6	74,695.6	27.2	-16.6
Ipomoea leucantha	Sweet-potato	393,003.6	48,914.7	12.4	42,267.3	10.8	1.7	29,866.6	7.6	42,734.0	10.9	-3.3
Ipomoea tiliacea	Sweet-potato	303,537.2	37,612.3	12.4	41,034.8	13.5	-1.1	52,635.2	17.3	43,610.0	14.4	3.0
Ipomoea trifida	Sweet-potato	312,497.2	69,136.9	22.1	45,554.6	14.6	7.5	43,261.1	13.8	74,665.9	23.9	-10.0
Ipomoea triloba	Sweet-potato	356,218.4	74,778.1	21.0	54,034.5	15.2	5.8	65,640.7	18.4	81,775.3	23.0	-4.5
Jacaratia dolichaula	Papaya	109,409.8	15,204.0	13.9	8,335.2	7.6	6.3	9,387.5	8.6	13,730.0	12.5	-4.0
Jacaratia mexicana	Papaya	185,559.3	41,485.2	22.4	16,731.7	9.0	13.3	26,421.1	14.2	21,214.1	11.4	2.8
Jarilla caudata	Papaya	189,879.8	3,857.6	2.0	67,753.0	35.7	-33.7	4,877.3	2.6	48,216.1	25.4	-22.8
Jarilla heterophylla	Papaya	153,020.7	17,073.9	11.2	20,624.7	13.5	-2.3	21,980.9	14.4	18,864.2	12.3	2.0
Jatropha andrieuxii	Physic nut	87,177.8	46,596.4	53.4	11,447.1	13.1	40.3	13,863.2	15.9	28,755.8	33.0	-17.1
Jatropha mcvaughii	Physic nut	253,594.1	20,264.4	8.0	18,095.5	7.1	0.9	10,944.9	4.3	48,893.6	19.3	-15.0
Leucaena confertiflora	Lead tree	139,593.6	23,243.1	16.7	16,180.6	11.6	5.1	22,161.0	15.9	23,093.6	16.5	-0.7
Leucaena esculenta	Lead tree	260,339.3	13,883.4	5.3	53,002.3	20.4	-15.0	28,635.0	11.0	33,584.2	12.9	-1.9
Leucaena lanceolata	Lead tree	271,087.7	25,881.5	9.5	34,787.0	12.8	-3.3	24,215.8	8.9	46,157.4	17.0	-8.1
Leucaena leucocephala	Lead tree	425,177.1	24,493.8	5.8	48,373.2	11.4	-5.6	41,398.0	9.7	30,939.0	7.3	2.5
Manihot aesculifolia	Cassava	312,710.0	29,599.2	9.5	50,745.3	16.2	-6.8	27,489.7	8.8	62,864.2	20.1	-11.3
Manihot angustiloba	Cassava	334,182.9	35,110.9	10.5	75,109.7	22.5	-12.0	70,917.6	21.2	49,935.4	14.9	6.3
Manihot caudata	Cassava	323,460.4	39,677.7	12.3	59,788.7	18.5	-6.2	39,246.4	12.1	67,347.6	20.8	-8.7
Manihot chlorosticta	Cassava	174,703.5	9,387.5	5.4	33,332.1	19.1	-13.7	37,488.7	21.5	15,078.5	8.6	12.8
Manihot crassisepala	Cassava	196,744.8	13,216.3	6.7	16,137.5	8.2	-1.5	31,648.2	16.1	10,898.9	5.5	10.5
Manihot davisiae	Cassava	167,960.2	11,003.4	6.6	18,564.2	11.1	-4.5	18,137.7	10.8	10,841.4	6.5	4.3
Manihot michaelis	Cassava	301,393.2	23,394.5	7.8	30,096.6	10.0	-2.2	11,002.4	3.7	64,499.2	21.4	-17.7
Manihot oaxacana	Cassava	74,831.7	18,042.8	24.1	8,674.5	11.6	12.5	11,046.5	14.8	18,116.6	24.2	-9.4
Manihot pauciflora	Cassava	82,824.8	3,318.9	4.0	32,135.1	38.8	-34.8	28,773.0	34.7	13,885.3	16.8	18.0
Manihot pringlei	Cassava	131,557.4	5,224.2	4.0	40,919.8	31.1	-27.1	66,708.3	50.7	7,483.2	5.7	45.0
Manihot rhomboidea	Cassava	464,060.3	7,638.4	1.6	47,051.6	10.1	-8.5	7,786.0	1.7	62,394.6	13.4	-11.8
Manihot rhomboidea subsp. *microcarpa*	Cassava	336,095.9	58,534.2	17.4	8,333.3	2.5	14.9	38,311.0	11.4	26,716.3	7.9	3.4
Manihot rubricaulis	Cassava	193,648.2	44,134.2	22.8	32,092.0	16.6	6.2	56,171.7	29.0	22,408.3	11.6	17.4
Manihot subspicata	Cassava	83,940.3	6,769.2	8.1	3,475.2	4.1	3.9	3,733.9	4.4	7,060.5	8.4	-4.0
Manihot tomatophylla	Cassava	83,327.0	4,322.4	5.2	24,734.3	29.7	-24.5	10,321.0	12.4	18,972.5	22.8	-10.4
Manilkara chicle	Naseberry, gum tree	94,881.4	9,580.1	10.1	8,120.5	8.6	1.5	4,748.9	5.0	15,123.5	15.9	-10.9
Manilkara zapota	Naseberry, gum tree	350,023.3	16,110.7	4.6	25,715.7	7.3	-2.7	27,029.7	7.7	19,633.7	5.6	2.1
Opuntia atropes	Opuntia	318,090.5	44,422.7	14.0	16,277.4	5.1	8.8	51,388.4	16.2	16,323.4	5.1	11.0
Opuntia ficus-indica	Opuntia	193,739.2	64,208.8	33.1	17,920.1	9.2	23.9	27,138.0	14.0	39,550.2	20.4	-6.4

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050					RCP4.5, 2070				
CWR taxa	**Crop gene pool**	**Current area (Km^2)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**
Opuntia hyptiacantha	Opuntia	151,330.1	13,189.5	8.7	24,478.4	16.2	-7.5	30,659.2	20.3	18,243.1	12.1	8.2
Opuntia lasiacantha	Opuntia	169,827.2	12,449.6	7.3	19,413.3	11.4	-4.1	7,283.8	4.3	33,732.7	19.9	-15.6
Opuntia spinulifera	Opuntia	68,263.8	14,209.2	20.8	5,532.8	8.1	12.7	20,316.1	29.8	4,946.3	7.2	22.5
Opuntia streptacantha	Opuntia	179,726.5	21,481.5	12.0	19,001.2	10.6	1.4	27,374.7	15.2	13,575.7	7.6	7.7
Opuntia velutina	Opuntia	399,914.7	11,260.2	2.8	77,140.5	19.3	-16.5	22,153.4	5.5	68,457.4	17.1	-11.6
Opuntia wilcoxii	Opuntia	160,153.1	9,866.7	6.2	46,103.7	28.8	-22.6	50,296.7	31.4	11,195.0	7.0	24.4
Pachyrhizus erosus	Yam-bean	314,308.6	46,787.1	14.9	37,230.9	11.8	3.0	70,738.4	22.5	31,527.5	10.0	12.5
Pachyrhizus ferrugineus	Yam-bean	230,121.0	75,590.8	32.8	6,031.2	2.6	30.2	118,375.6	51.4	2,468.8	1.1	50.4
Persea americana	Avocado	371,160.8	51,594.4	13.9	45,136.7	12.2	1.7	67,002.6	18.1	45,998.3	12.4	5.7
Persea schiedeana	Avocado	163,698.2	31,055.9	19.0	3,210.6	2.0	17.0	6,037.9	3.7	25,106.2	15.3	-11.6
Phaseolus acutifolius	Bean	443,349.3	95,214.9	21.5	40,587.2	9.2	12.3	53,048.3	12.0	83,751.5	18.9	-6.9
Phaseolus acutifolius var. *acutifolius*	Bean	464,049.7	30,152.2	6.5	103,156.2	22.2	-15.7	19,310.8	4.2	133,353.4	28.7	-24.6
Phaseolus acutifolius var. *tenuifolius*	Bean	324,518.4	57,973.5	17.9	33,765.3	10.4	7.5	60,102.1	18.5	40,368.7	12.4	6.1
Phaseolus albescens	Bean	113,494.5	19,269.6	17.0	14,728.7	13.0	4.0	17,982.4	15.8	21,263.0	18.7	-2.9
Phaseolus coccineus	Bean	383,231.8	30,202.0	7.9	9,556.2	2.5	5.4	23,722.3	6.2	15,481.0	4.0	2.2
Phaseolus coccineus subsp. *coccineus*	Bean	339,442.6	8,247.0	2.4	35,801.0	10.5	-8.1	30,410.0	9.0	17,601.0	5.2	3.8
Phaseolus dumosus	Bean	157,988.1	27,717.8	17.5	15,225.1	9.6	7.9	33,832.4	21.4	15,167.6	9.6	11.8
Phaseolus filiformis	Bean	159,073.0	13,991.7	8.8	4,469.0	2.8	6.0	27,483.0	17.3	1,849.7	1.2	16.1
Phaseolus maculatus subsp. *ritensis*	Bean	262,331.8	23,849.7	9.1	44,345.1	16.9	-7.8	21,279.3	8.1	75,208.4	28.7	-20.6
Phaseolus parvifolius	Bean	244,484.5	94,065.8	38.5	7,248.4	3.0	35.5	133,292.1	54.5	6,981.0	2.9	51.7
Phaseolus vulgaris	Bean	478,331.8	35,074.5	7.3	37,265.4	7.8	-0.5	40,792.3	8.5	36,716.2	7.7	0.9
Phaseolus vulgaris var. *aborigineus*	Bean	300,869.0	109,170.2	36.3	2,435.3	0.8	35.5	33,342.7	11.1	26,474.8	8.8	2.3
Physalis acutifolia	Husk tomato	272,111.3	12,459.2	4.6	35,824.9	13.2	-8.6	45,688.8	16.8	18,721.4	6.9	9.9
Physalis ampla	Husk tomato	532,473.6	58,792.0	11.0	65,657.0	12.3	-1.3	73,234.1	13.8	144,203.5	27.1	-13.3
Physalis angulata	Husk tomato	326,385.4	63,382.7	19.4	62,376.4	19.1	0.3	97,059.9	29.7	66,599.1	20.4	9.3
Physalis crassifolia	Husk tomato	340,075.1	10,079.5	3.0	14,670.2	4.3	-1.3	2,368.2	0.7	44,504.2	13.1	-12.4
Physalis lagascae	Husk tomato	220,561.9	22,999.6	10.4	33,660.9	15.3	-4.8	31,451.8	14.3	32,352.6	14.7	-0.4
Physalis philadelphica	Husk tomato	385,878.0	59,572.1	15.4	22,762.0	5.9	9.5	82,718.4	21.4	15,374.6	4.0	17.5
Physalis sulphurea	Husk tomato	99,262.3	17,348.9	17.5	17,682.4	17.8	-0.3	28,594.8	28.8	14,017.5	14.1	14.7
Pinus ayacahuite	Pinyon	252,460.3	463.9	0.2	84,665.9	33.5	-33.4	5,041.2	2.0	57,763.6	22.9	-20.9
Pinus cembroides	Pinyon	331,877.0	37,825.1	11.4	51,966.3	15.7	-4.3	47,027.6	14.2	54,738.0	16.5	-2.3
Pinus monophylla	Pinyon	12,479.3	5,898.0	47.3	1,302.5	10.4	36.8	5,464.8	43.8	1,314.0	10.5	33.3
Pinus quadrifolia	Pinyon	8,990.7	152.4	1.7	1,051.4	11.7	-10.0	591.3	6.6	248.2	2.8	3.8

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050					RCP4.5, 2070				
CWR taxa	Crop gene pool	Current area (Km^2)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Pithecellobium dulce	Blackbead	509,197.9	35,086.0	6.9	17,285.7	3.4	3.5	36,899.3	7.2	20,639.1	4.1	3.2
Porophyllum gracile	Poreleaf, pipicha	150,437.9	17,695.9	11.8	16,872.6	11.2	0.5	18,108.9	12.0	17,442.8	11.6	0.4
Porophyllum linaria	Poreleaf, pipicha	197,586.3	51,338.5	26.0	13,514.4	6.8	19.1	49,127.5	24.9	11,507.5	5.8	19.0
Porophyllum ruderale	Poreleaf, pipicha	380,095.9	43,979.9	11.6	49,159.1	12.9	-1.4	44,578.9	11.7	74,212.6	19.5	-7.8
Porophyllum scoparium	Poreleaf, pipicha	192,091.8	26,057.9	13.6	9,848.5	5.1	8.4	24,641.4	12.8	14,998.0	7.8	5.0
Pouteria campechiana	Marmalade-plum, yellow sapote	310,537.3	41,461.3	13.4	44,586.6	14.4	-1.0	27,106.4	8.7	54,919.1	17.7	-9.0
Pouteria durlandii	Marmalade-plum, yellow sapote	127,196.7	7,584.8	6.0	22,746.6	17.9	-11.9	70,117.4	55.1	4,698.1	3.7	51.4
Pouteria glomerata	Marmalade-plum, yellow sapote	142,538.7	26,288.9	18.4	14,542.7	10.2	8.2	20,435.9	14.3	11,686.7	8.2	6.1
Pouteria reticulata	Marmalade-plum, yellow sapote	179,708.3	4,091.4	2.3	53,364.6	29.7	-27.4	5,166.7	2.9	53,435.5	29.7	-26.9
Pouteria sapota	Marmalade-plum, yellow sapote	374,034.1	2,702.7	0.7	57,787.6	15.4	-14.7	4,037.7	1.1	62,903.5	16.8	-15.7
Psidium guajava	Guava	500,017.4	45,259.4	9.1	90,127.8	18.0	-9.0	78,118.1	15.6	67,195.2	13.4	2.2
Psidium guineense	Guava	180,273.7	60,181.7	33.4	19,738.2	10.9	22.4	2,386.4	1.3	98,013.5	54.4	-53.0
Psidium oligospermum	Guava	282,641.2	62,975.4	22.3	32,685.2	11.6	10.7	49,600.0	17.5	51,445.9	18.2	-0.7
Salvia axillaris	Chia, sage	186,667.2	15,712.9	8.4	19,539.8	10.5	-2.1	17,416.0	9.3	25,664.0	13.7	-4.4
Salvia carnea	Chia, sage	130,405.4	17,943.1	13.8	7,618.3	5.8	7.9	61,700.7	47.3	581.7	0.4	46.9
Salvia cinnabarina	Chia, sage	213,607.8	6,890.9	3.2	32,301.9	15.1	-11.9	1,177.9	0.6	68,587.8	32.1	-31.6
Salvia coccinea	Chia, sage	273,105.2	27,992.9	10.2	40,001.6	14.6	-4.4	31,870.6	11.7	26,789.1	9.8	1.9
Salvia columbariae	Chia, sage	132,245.5	2,288.7	1.7	14,447.9	10.9	-9.2	1,191.3	0.9	32,282.7	24.4	-23.5
Salvia elegans	Chia, sage	225,648.2	28,796.0	12.8	17,196.5	7.6	5.1	46,710.4	20.7	16,140.4	7.2	13.5
Salvia fluviatilis	Chia, sage	331,371.0	21,875.4	6.6	16,266.9	4.9	1.7	7,728.5	2.3	24,464.1	7.4	-5.1
Salvia helianthemifolia	Chia, sage	169,486.0	33,561.2	19.8	14,866.7	8.8	11.0	31,755.6	18.7	17,753.4	10.5	8.3
Salvia hispanica	Chia, sage	235,789.0	34,681.6	14.7	31,508.3	13.4	1.3	47,847.1	20.3	36,050.1	15.3	5.0
Salvia laevis	Chia, sage	95,037.6	16,385.7	17.2	14,046.3	14.8	2.5	25,366.9	26.7	10,066.1	10.6	16.1
Salvia lasiantha	Chia, sage	69,234.7	109,119.4	157.6	838.6	1.2	156.4	45,610.2	65.9	957.4	1.4	64.5
Salvia lasiocephala	Chia, sage	261,733.8	41,933.8	16.0	58,099.1	22.2	-6.2	44,279.9	16.9	55,799.9	21.3	-4.4
Salvia leucantha	Chia, sage	354,197.1	15,055.5	4.3	41,695.1	11.8	-7.5	9,454.6	2.7	72,703.1	20.5	-17.9
Salvia longistyla	Chia, sage	102,298.5	24,411.4	23.9	17,385.3	17.0	6.9	6,815.2	6.7	31,132.6	30.4	-23.8
Salvia mexicana	Chia, sage	334,867.2	47,091.9	14.1	20,683.2	6.2	7.9	28,885.2	8.6	50,795.1	15.2	-6.5
Salvia microphylla	Chia, sage	280,752.2	23,801.8	8.5	27,974.7	10.0	-1.5	12,658.5	4.5	53,691.4	19.1	-14.6
Salvia misella	Chia, sage	294,038.5	91,960.2	31.3	23,502.8	8.0	23.3	75,466.2	25.7	39,487.0	13.4	12.2
Salvia mocinoi	Chia, sage	219,649.5	49,051.8	22.3	10,092.9	4.6	17.7	56,016.5	25.5	14,405.7	6.6	18.9
Salvia occidentalis	Chia, sage	339,644.8	92,601.4	27.3	40,963.9	12.1	15.2	65,786.4	19.4	66,255.0	19.5	-0.1
Salvia patens	Chia, sage	225,425.8	31,522.7	14.0	15,848.1	7.0	7.0	13,140.6	5.8	40,946.6	18.2	-12.3

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050					RCP4.5, 2070				
CWR taxa	Crop gene pool	Current area (Km^2)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Salvia polystachia	Chia, sage	235,205.3	18,473.1	7.9	39,249.3	16.7	-8.8	19,377.9	8.2	45,016.9	19.1	-10.9
Salvia prunelloides	Chia, sage	201,898.1	7,103.6	3.5	16,813.2	8.3	-4.8	6,225.8	3.1	19,960.6	9.9	-6.8
Salvia purpurea	Chia, sage	246,157.9	47,778.1	19.4	12,590.5	5.1	14.3	26,351.2	10.7	30,575.8	12.4	-1.7
Salvia regla	Chia, sage	356,936.2	57,416.7	16.1	23,329.3	6.5	9.5	27,000.0	7.6	58,457.5	16.4	-8.8
Salvia setulosa	Chia, sage	188,688.5	66,001.1	35.0	2,488.0	1.3	33.7	33,724.1	17.9	8,658.2	4.6	13.3
Salvia thyrsiflora	Chia, sage	149,407.6	29,682.6	19.9	17,811.8	11.9	7.9	42,966.9	28.8	24,793.8	16.6	12.2
Salvia tiliifolia	Chia, sage	381,569.0	50,924.5	13.3	29,227.3	7.7	5.7	74,716.7	19.6	16,818.0	4.4	15.2
Sechium chinantlense	Chayote	43,311.0	35,302.6	81.5	851.1	2.0	79.5	26,724.9	61.7	1,797.0	4.1	57.6
Sechium compositum	Chayote	25,221.2	9,436.4	37.4	1,181.7	4.7	32.7	9,985.6	39.6	1,946.5	7.7	31.9
Sechium edule subsp. *sylvestre*	Chayote	105,720.9	17,087.3	16.2	15,007.6	14.2	2.0	9,199.7	8.7	23,468.3	22.2	-13.5
Sechium hintonii	Chayote	172,182.9	15,953.5	9.3	23,521.0	13.7	-4.4	25,844.2	15.0	13,673.5	7.9	7.1
Simmondsia chinensis	Goatnut	183,957.8	18,925.5	10.3	6,982.9	3.8	6.5	26,002.3	14.1	5,215.6	2.8	11.3
Solanum bulbocastanum	Potato	262,372.1	14,709.5	5.6	29,140.1	11.1	-5.5	12,356.6	4.7	36,418.2	13.9	-9.2
Solanum cardiophyllum	Potato	238,754.2	48,691.4	20.4	26,542.8	11.1	9.3	49,739.9	20.8	28,558.4	12.0	8.9
Solanum clarum	Potato	101,741.6	27,702.5	27.2	14,453.6	14.2	13.0	12,161.1	12.0	22,286.6	21.9	-10.0
Solanum demissum	Potato	167,655.5	28,778.8	17.2	16,548.7	9.9	7.3	26,094.3	15.6	17,994.9	10.7	4.8
Solanum ehrenbergii	Potato	189,615.3	30,577.7	16.1	13,033.3	6.9	9.3	59,259.7	31.3	3,255.7	1.7	29.5
Solanum hjertingii	Potato	313,948.3	4,963.5	1.6	75,325.3	24.0	-22.4	24,009.8	7.6	28,766.3	9.2	-1.5
Solanum hougasii	Potato	138,732.9	56,055.8	40.4	4,737.4	3.4	37.0	63,133.5	45.5	11,644.5	8.4	37.1
Solanum iopetalum	Potato	225,421.0	3,593.0	1.6	52,161.8	23.1	-21.5	9,157.5	4.1	30,121.5	13.4	-9.3
Solanum morelliforme	Potato	115,511.9	31,322.4	27.1	13,446.3	11.6	15.5	28,308.2	24.5	15,677.5	13.6	10.9
Solanum oxycarpum	Potato	134,130.7	5,938.2	4.4	22,931.6	17.1	-12.7	13,770.3	10.3	19,617.5	14.6	-4.4
Solanum pinnatisectum	Potato	77,327.4	24,288.7	31.4	14,377.9	18.6	12.8	25,390.8	32.8	20,960.2	27.1	5.7
Solanum polyadenium	Potato	185,126.1	29,069.2	15.7	21,897.5	11.8	3.9	19,144.0	10.3	31,224.6	16.9	-6.5
Solanum schenckii	Potato	179,929.7	52,748.3	29.3	9,962.5	5.5	23.8	56,868.5	31.6	10,699.6	5.9	25.7
Solanum stenophyllidium	Potato	264,630.0	38,337.8	14.5	41,712.4	15.8	-1.3	29,201.4	11.0	60,967.5	23.0	-12.0
Solanum stoloniferum	Potato	402,447.7	31,635.8	7.9	12,621.1	3.1	4.7	25,689.9	6.4	19,478.5	4.8	1.5
Solanum tarnii	Potato	66,199.4	13,868.0	20.9	7,213.9	10.9	10.1	3,955.3	6.0	20,139.8	30.4	-24.4
Solanum trifidum	Potato	127,833.1	7,686.4	6.0	25,651.5	20.1	-14.1	5,837.6	4.6	43,147.1	33.8	-29.2
Solanum verrucosum	Potato	224,111.8	27,210.8	12.1	13,694.6	6.1	6.0	26,505.5	11.8	19,513.0	8.7	3.1
Spondias mombin	Purple mombin	292,095.8	91,924.8	31.5	12,891.4	4.4	27.1	76,645.0	26.2	21,071.3	7.2	19.0
Spondias purpurea	Yellow mombin	393,750.2	56,626.0	14.4	64,061.3	16.3	-1.9	31,567.7	8.0	103,869.3	26.4	-18.4
Stenocereus alamosensis	Pitaya, cina	140,746.5	143.8	0.1	26,990.4	19.2	-19.1	2,842.6	2.0	14,005.1	10.0	-7.9
Stenocereus beneckei	Pitaya, cina	77,053.3	415.9	0.5	37,161.9	48.2	-47.7	14,450.7	18.8	11,752.8	15.3	3.5
Stenocereus chrysocarpus	Pitaya, cina	70,372.3	398.7	0.6	6,848.7	9.7	-9.2	356.5	0.5	10,943.9	15.6	-15.0
Stenocereus eruca	Pitaya, cina	105,988.3	4,790.1	4.5	11,790.2	11.1	-6.6	3,917.9	3.7	16,097.3	15.2	-11.5
Stenocereus fricii	Pitaya, cina	68,557.1	4,385.6	6.4	2,761.1	4.0	2.4	3,163.7	4.6	4,445.1	6.5	-1.9
Stenocereus griseus	Pitaya, cina	269,496.8	4,522.7	1.7	62,415.7	23.2	-21.5	20,937.2	7.8	52,427.3	19.5	-11.7

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

			RCP4.5, 2050					**RCP4.5, 2070**				
CWR taxa	**Crop gene pool**	**Current area (Km^2)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**	**Gain (Km^2)**	**% Gain**	**Loss (Km^2)**	**% Change (No-migration)**	**% Change (Unlimited migration)**
Stenocereus gummosus	Pitaya, cina	144,880.1	783.0	0.5	24,090.3	16.6	-16.1	5,154.3	3.6	13,978.2	9.6	-6.1
Stenocereus kerberi	Pitaya, cina	148,487.5	8,535.5	5.7	14,213.0	9.6	-3.8	3,304.6	2.2	33,766.3	22.7	-20.5
Stenocereus montanus	Pitaya, cina	178,581.2	30,853.7	17.3	17,137.1	9.6	7.7	26,336.8	14.7	21,756.6	12.2	2.6
Stenocereus pruinosus	Pitaya, cina	240,143.0	21,788.2	9.1	64,373.7	26.8	-17.7	25,204.0	10.5	63,287.8	26.4	-15.9
Stenocereus queretaroensis	Pitaya, cina	245,026.0	23,880.4	9.7	21,797.8	8.9	0.8	57,164.6	23.3	15,711.0	6.4	16.9
Stenocereus quevedonis	Pitaya, cina	69,292.2	148.6	0.2	9,225.5	13.3	-13.1	33,319.7	48.1	22.0	0.0	48.1
Stenocereus standleyi	Pitaya, cina	221,821.3	7,189.9	3.2	16,796.9	7.6	-4.3	11,773.0	5.3	32,890.3	14.8	-9.5
Stenocereus stellatus	Pitaya, cina	141,741.3	21,715.4	15.3	17,556.9	12.4	2.9	3,479.9	2.5	60,905.2	43.0	-40.5
Stenocereus thurberi	Pitaya, cina	208,729.5	22,803.2	10.9	17,919.2	8.6	2.3	17,701.6	8.5	28,453.9	13.6	-5.2
Stenocereus treleasei	Pitaya, cina	27,671.8	1,664.7	6.0	5,850.1	21.1	-15.1	640.2	2.3	8,798.1	31.8	-29.5
Tagetes micrantha	Marigold	321,314.5	42,941.0	13.4	26,379.0	8.2	5.2	27,461.9	8.5	35,586.3	11.1	-2.5
Tagetes stenophylla	Marigold	160,296.9	878.9	0.5	72,116.6	45.0	-44.4	20,539.4	12.8	31,973.1	19.9	-7.1
Tripsacum bravum	Maize	132,732.4	9,060.7	6.8	34,060.5	25.7	-18.8	6,592.8	5.0	45,706.0	34.4	-29.5
Tripsacum dactyloides var. *hispidum*	Maize	277,570.3	12,798.4	4.6	85,945.3	31.0	-26.4	5,871.1	2.1	114,340.7	41.2	-39.1
Tripsacum dactyloides var. *mexicanum*	Maize	258,164.7	41,569.6	16.1	10,413.0	4.0	12.1	56,751.6	22.0	12,243.5	4.7	17.2
Tripsacum zopilotense	Maize	92,631.1	26,242.9	28.3	7,926.9	8.6	19.8	5,966.0	6.4	36,297.4	39.2	-32.7
Zea diploperennis	Maize	136,593.8	38,920.6	28.5	17,475.4	12.8	15.7	19,260.0	14.1	43,856.3	32.1	-18.0
Zea mays subsp. *mexicana*	Maize	160,346.7	29,003.0	18.1	13,473.2	8.4	9.7	34,705.5	21.6	15,420.6	9.6	12.0
Zea mays subsp. *parviglumis*	Maize	107,042.5	5,410.2	5.1	16,188.3	15.1	-10.1	20,190.6	18.9	8,390.8	7.8	11.0
Zea perennis	Maize	59,879.8	2,932.7	4.9	24,018.4	40.1	-35.2	9,298.4	15.5	18,799.9	31.4	-15.9
Average		227,435.0	29,257.6	14.6	30,181.7	13.8	0.8	31,163.5	15.4	34,101.1	15.3	0.1

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Agave angustifolia	Agave	63,503.5	18.3	46,032.8	13.3	5.0	88,268.5	25.4	52,826.0	15.2	10.2
Agave atrovirens	Agave	10,077.6	7.7	7,243.6	5.5	2.2	14,258.1	10.9	9,528.4	7.3	3.6
Agave datylio	Agave	2,802.4	3.3	13,121.4	15.5	-12.2	6,866.9	8.1	16,778.7	19.8	-11.7
Agave fourcroydes	Agave	6,452.9	8.9	22,401.6	31.0	-22.1	4,444.1	6.2	23,945.6	33.2	-27.0
Agave hiemiflora	Agave	1,098.3	1.4	41,713.3	52.6	-51.2	6,032.2	7.6	30,692.7	38.7	-31.1
Agave hurteri	Agave	21,001.4	14.1	16,877.4	11.3	2.8	33,323.5	22.4	25,980.3	17.4	4.9
Agave karwinskii	Agave	17,099.7	18.0	13,603.5	14.3	3.7	24,865.6	26.1	15,081.4	15.8	10.3
Agave kewensis	Agave	2,074.9	5.9	17,702.6	50.1	-44.2	1,660.9	4.7	22,737.0	64.4	-59.7
Agave macroacantha	Agave	2,271.4	3.6	39,818.6	63.5	-59.8	1,464.4	2.3	47,272.0	75.3	-73.0
Agave macroculmis	Agave	33,051.3	21.0	8,073.5	5.1	15.8	56,629.8	35.9	6,190.3	3.9	32.0
Agave rhodacantha	Agave	32,394.8	14.4	27,737.0	12.4	2.1	26,919.5	12.0	54,924.8	24.5	-12.5
Agave seemanniana	Agave	808.9	0.6	64,352.6	44.3	-43.7	6,714.5	4.6	41,970.2	28.9	-24.3
Agave sisalana	Agave	19,169.9	4.4	77,557.4	17.7	-13.3	51,143.0	11.7	42,980.3	9.8	1.9
Agave tequilana	Agave	12,218.6	11.4	34,290.5	32.0	-20.6	16,625.3	15.5	45,954.2	42.9	-27.4
Amaranthus australis	Amaranth	3,650.5	1.0	186,960.5	52.0	-51.0	2,543.6	0.7	189,936.3	52.8	-52.1
Amaranthus caudatus	Amaranth	40.3	0.0	209,457.9	58.4	-58.4	10.5	0.0	232,352.1	64.8	-64.8
Amaranthus cruentus	Amaranth	12,663.3	4.8	80,725.9	30.8	-26.0	12,326.0	4.7	101,488.6	38.7	-34.0
Amaranthus dubius	Amaranth	4,452.7	1.6	39,152.5	13.9	-12.3	13,511.5	4.8	33,393.5	11.8	-7.0
Amaranthus fimbriatus	Amaranth	40,143.5	20.4	6,952.2	3.5	16.9	22,415.0	11.4	15,967.9	8.1	3.3
Amaranthus hybridus	Amaranth	50,107.9	12.5	80,707.7	20.1	-7.6	74,812.6	18.6	75,027.2	18.7	-0.1
Amaranthus hypochondriacus	Amaranth	37,651.6	32.4	11,980.9	10.3	22.1	42,485.8	36.6	18,493.3	15.9	20.6
Amaranthus palmeri	Amaranth	32,532.8	8.0	91,576.9	22.4	-14.5	63,299.3	15.5	87,952.2	21.5	-6.0
Amaranthus powellii	Amaranth	47,817.4	17.2	25,641.9	9.2	8.0	42,520.3	15.3	38,459.6	13.9	1.5
Amaranthus scariosus	Amaranth	10,736.0	4.6	54,241.5	23.1	-18.5	6,493.1	2.8	77,886.1	33.2	-30.4
Amaranthus spinosus	Amaranth	94,706.0	26.6	41,746.9	11.7	14.9	122,271.5	34.4	37,221.3	10.5	23.9
Amaranthus torreyi	Amaranth	38,756.7	10.4	39,717.0	10.6	-0.3	74,760.8	20.0	27,084.3	7.3	12.8
Annona cherimola	Annona	64,602.7	25.9	19,447.8	7.8	18.1	47,345.8	19.0	37,773.3	15.2	3.8
Annona glabra	Annona	26,822.7	18.7	23,162.6	16.2	2.6	51,113.3	35.7	12,601.0	8.8	26.9
Annona globiflora	Annona	11,093.5	9.8	11,091.5	9.8	0.0	7,449.6	6.6	14,148.8	12.5	-5.9
Annona longiflora	Annona	26,345.4	12.6	17,495.6	8.4	4.2	46,352.0	22.2	20,475.2	9.8	12.4
Annona reticulata	Annona	77,856.4	21.9	23,871.8	6.7	15.2	62,825.9	17.7	32,391.0	9.1	8.6
Annona macroprophyllata	Annona	15,930.5	5.7	46,971.1	16.8	-11.1	16,300.4	5.8	61,491.8	22.0	-16.2
Annona muricata	Annona	25,086.1	8.7	53,030.1	18.4	-9.7	29,176.5	10.1	47,615.1	16.5	-6.4
Annona purpurea	Annona	18,592.9	8.8	62,867.1	29.9	-21.1	29,221.6	13.9	65,203.7	31.0	-17.1
Annona liebmanniana	Annona	8,127.2	4.4	32,006.7	17.4	-13.0	26,898.4	14.6	24,345.2	13.2	1.4
Annona squamosa	Annona	26,500.7	11.7	21,894.6	9.7	2.0	43,853.4	19.3	15,808.8	7.0	12.4
Bixa orellana	Annatto	43,744.2	13.5	12,089.2	3.7	9.7	28,754.8	8.8	27,310.5	8.4	0.4
Byrsonima crassifolia	Nance	40,192.3	9.0	18,262.3	4.1	4.9	39,438.1	8.8	24,374.0	5.5	3.4

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Capsicum annuum var. *glabriusculum*	Chili pepper	677,127.5	164.6	1,387.8	0.3	164.3	101,234.6	24.6	113,190.7	27.5	-2.9
Capsicum frutescens	Chili pepper	53,552.4	16.8	45,551.7	14.3	2.5	80,249.6	25.1	38,593.7	12.1	13.0
Carica papaya	Papaya	27,802.2	7.6	33,699.2	9.3	-1.6	37,537.6	10.3	32,853.9	9.0	1.3
Carya illinoinensis	Pecan	69,233.7	22.1	43,750.9	14.0	8.1	92,898.5	29.6	37,716.8	12.0	17.6
Carya ovata	Pecan	37,070.8	26.6	14,737.3	10.6	16.0	27,241.5	19.5	23,118.5	16.6	3.0
Carya palmeri	Pecan	1,320.7	1.3	36,045.4	34.2	-33.0	1,153.9	1.1	37,937.2	36.0	-34.9
Crataegus mexicana	Mexican hawthorn	7,130.5	5.0	20,937.2	14.6	-9.6	19,220.7	13.4	12,627.9	8.8	4.6
Cucurbita argyrosperma	Pumpkin, squash, cushaw	91,011.4	22.3	37,988.0	9.3	13.0	75,532.3	18.5	59,293.2	14.5	4.0
Cucurbita argyrosperma subsp. *sororia*	Pumpkin, squash, cushaw	31,257.2	7.2	38,277.5	8.8	-1.6	63,948.2	14.8	27,464.8	6.3	8.4
Cucurbita cordata	Pumpkin, squash, cushaw	12,730.4	11.5	6,284.2	5.7	5.8	11,402.1	10.3	8,572.9	7.8	2.6
Cucurbita digitata	Pumpkin, squash, cushaw	44,072.9	24.3	3,551.8	2.0	22.3	19,240.8	10.6	14,391.3	7.9	2.7
Cucurbita foetidissima	Pumpkin, squash, cushaw	42,606.6	9.8	78,737.2	18.1	-8.3	72,357.1	16.7	87,572.7	20.2	-3.5
Cucurbita lundelliana	Pumpkin, squash, cushaw	37,439.8	20.0	2,164.1	1.2	18.8	50,818.1	27.1	5,592.3	3.0	24.1
Cucurbita okeechobeensis subsp. *martinezii*	Pumpkin, squash, cushaw	31,660.7	28.4	17,123.7	15.3	13.0	40,785.6	36.5	19,672.1	17.6	18.9
Cucurbita palmata	Pumpkin, squash, cushaw	2,232.1	1.0	23,479.8	10.8	-9.8	638.3	0.3	27,175.4	12.5	-12.2
Cucurbita pedatifolia	Pumpkin, squash, cushaw	21,196.9	11.2	22,950.8	12.1	-0.9	52,350.6	27.7	16,293.7	8.6	19.1
Cucurbita pepo subsp. *fraterna*	Pumpkin, squash, cushaw	2,380.7	1.9	37,395.7	30.6	-28.6	6,940.7	5.7	38,720.2	31.7	-26.0
Cucurbita radicans	Pumpkin, squash, cushaw	8,318.9	3.6	42,719.6	18.7	-15.1	17,440.0	7.6	44,502.3	19.5	-11.9
Gossypium aridum	Cotton	10,923.8	5.8	38,178.8	20.4	-14.6	13,022.7	7.0	46,889.6	25.1	-18.1
Gossypium barbadense	Cotton	18,034.2	4.6	62,542.2	15.9	-11.3	27,400.6	7.0	78,716.1	20.1	-13.1
Gossypium gossypioides	Cotton	16,951.2	18.4	13,077.3	14.2	4.2	9,824.5	10.7	28,337.9	30.8	-20.1
Gossypium hirsutum	Cotton	17,116.0	3.7	57,615.1	12.3	-8.7	24,670.1	5.3	65,156.7	13.9	-8.7
Gossypium thurberi	Cotton	3,093.7	1.4	45,690.7	21.0	-19.5	8,386.0	3.8	77,678.2	35.6	-31.8
Helianthus annuus	Sunflower	122,629.0	36.3	77,455.8	22.9	13.4	111,363.0	33.0	84,684.1	25.1	7.9
Helianthus californicus	Sunflower	1,926.4	8.2	1,841.1	7.8	0.4	19,064.5	80.7	632.5	2.7	78.0
Helianthus ciliaris	Sunflower	74,154.1	17.0	12,395.0	2.8	14.2	86,924.8	20.0	25,637.2	5.9	14.1

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Helianthus laciniatus	Sunflower	35,978.3	9.4	42,488.7	11.1	-1.7	15,085.2	3.9	106,391.8	27.7	-23.8
Helianthus niveus	Sunflower	41,251.4	26.6	6,872.7	4.4	22.2	41,908.8	27.0	12,929.8	8.3	18.7
Hylocereus ocamponis	Pitahaya	38,634.9	17.5	7,105.6	3.2	14.3	55,956.1	25.4	7,564.6	3.4	22.0
Ipomoea batatas	Sweet-potato	34,400.7	12.5	67,858.4	24.7	-12.2	89,771.2	32.7	33,739.5	12.3	20.4
Ipomoea leucantha	Sweet-potato	73,138.2	18.6	16,912.9	4.3	14.3	32,143.7	8.2	84,577.7	21.5	-13.3
Ipomoea tiliacea	Sweet-potato	31,690.4	10.4	55,022.6	18.1	-7.7	53,533.2	17.6	49,366.1	16.3	1.4
Ipomoea trifida	Sweet-potato	101,042.0	32.3	38,158.6	12.2	20.1	110,294.4	35.3	39,231.1	12.6	22.7
Ipomoea triloba	Sweet-potato	66,710.3	18.7	77,060.0	21.6	-2.9	101,579.7	28.5	69,334.4	19.5	9.1
Jacaratia dolichaula	Papaya	10,988.0	10.0	12,970.0	11.9	-1.8	4,461.3	4.1	22,424.6	20.5	-16.4
Jacaratia mexicana	Papaya	39,043.2	21.0	15,461.8	8.3	12.7	54,017.2	29.1	15,440.8	8.3	20.8
Jarilla caudata	Papaya	5,260.6	2.8	51,979.7	27.4	-24.6	31,878.2	16.8	38,697.2	20.4	-3.6
Jarilla heterophylla	Papaya	27,255.9	17.8	9,884.9	6.5	11.4	38,433.7	25.1	9,023.3	5.9	19.2
Jatropha andrieuxii	Physic nut	38,140.4	43.8	15,344.9	17.6	26.1	12,178.4	14.0	36,269.6	41.6	-27.6
Jatropha mcvaughii	Physic nut	11,558.3	4.6	47,779.0	18.8	-14.3	13,335.2	5.3	49,470.6	19.5	-14.2
Leucaena confertiflora	Lead tree	20,590.2	14.8	30,280.6	21.7	-6.9	57,292.1	41.0	15,606.6	11.2	29.9
Leucaena esculenta	Lead tree	18,003.5	6.9	43,539.1	16.7	-9.8	28,643.6	11.0	46,698.0	17.9	-6.9
Leucaena lanceolata	Lead tree	23,374.4	8.6	44,055.6	16.3	-7.6	18,553.6	6.8	69,064.1	25.5	-18.6
Leucaena leucocephala	Lead tree	37,211.7	8.8	25,544.2	6.0	2.7	35,573.8	8.4	38,473.9	9.0	-0.7
Manihot aesculifolia	Cassava	61,295.3	19.6	27,836.7	8.9	10.7	65,331.1	20.9	27,870.2	8.9	12.0
Manihot angustiloba	Cassava	46,282.0	13.8	59,383.3	17.8	-3.9	62,005.5	18.6	58,966.4	17.6	0.9
Manihot caudata	Cassava	42,885.4	13.3	62,816.3	19.4	-6.2	75,073.2	23.2	51,896.3	16.0	7.2
Manihot chlorosticta	Cassava	20,316.1	11.6	26,501.6	15.2	-3.5	23,507.6	13.5	25,496.3	14.6	-1.1
Manihot crassisepala	Cassava	11,114.5	5.6	19,972.1	10.2	-4.5	59,410.1	30.2	2,635.6	1.3	28.9
Manihot davisiae	Cassava	23,289.1	13.9	8,777.0	5.2	8.6	21,807.4	13.0	18,149.2	10.8	2.2
Manihot michaelis	Cassava	4,559.1	1.5	103,582.7	34.4	-32.9	33,788.3	11.2	43,104.0	14.3	-3.1
Manihot oaxacana	Cassava	18,622.6	24.9	11,024.5	14.7	10.2	30,648.6	41.0	12,671.0	16.9	24.0
Manihot pauciflora	Cassava	20,114.9	24.3	13,580.5	16.4	7.9	20,011.4	24.2	22,591.4	27.3	-3.1
Manihot pringlei	Cassava	47,589.3	36.2	11,452.9	8.7	27.5	105,006.9	79.8	6,772.0	5.1	74.7
Manihot rhomboidea	Cassava	3,507.7	0.8	83,682.5	18.0	-17.3	23,133.8	5.0	67,939.9	14.6	-9.7
Manihot rhomboidea subsp. *microcarpa*	Cassava	36,182.4	10.8	24,484.2	7.3	3.5	32,153.3	9.6	69,198.3	20.6	-11.0
Manihot rubricaulis	Cassava	31,450.8	16.2	38,540.1	19.9	-3.7	58,873.4	30.4	33,779.7	17.4	13.0
Manihot subspicata	Cassava	8,666.8	10.3	3,297.8	3.9	6.4	36,426.8	43.4	2,262.8	2.7	40.7
Manihot tomatophylla	Cassava	21,902.3	26.3	13,531.6	16.2	10.0	77,010.2	92.4	2,372.0	2.8	89.6
Manilkara chicle	Naseberry, gum tree	9,392.3	9.9	7,275.2	7.7	2.2	5,279.8	5.6	14,558.1	15.3	-9.8
Manilkara zapota	Naseberry, gum tree	15,832.7	4.5	34,648.0	9.9	-5.4	23,586.2	6.7	21,238.1	6.1	0.7
Opuntia atropes	Opuntia	23,264.2	7.3	29,377.8	9.2	-1.9	18,500.0	5.8	37,416.8	11.8	-5.9
Opuntia ficus-indica	Opuntia	54,114.0	27.9	22,765.8	11.8	16.2	43,860.1	22.6	29,812.9	15.4	7.3

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Opuntia hyptiacantha	Opuntia	14,467.0	9.6	25,807.7	17.1	-7.5	12,913.5	8.5	37,490.6	24.8	-16.2
Opuntia lasiacantha	Opuntia	28,498.0	16.8	13,038.0	7.7	9.1	19,216.8	11.3	25,734.9	15.2	-3.8
Opuntia spinulifera	Opuntia	14,258.1	20.9	9,805.4	14.4	6.5	34,303.9	50.3	6,325.4	9.3	41.0
Opuntia streptacantha	Opuntia	21,057.0	11.7	15,596.0	8.7	3.0	24,574.3	13.7	16,876.4	9.4	4.3
Opuntia velutina	Opuntia	11,028.3	2.8	80,656.9	20.2	-17.4	29,641.3	7.4	66,262.7	16.6	-9.2
Opuntia wilcoxii	Opuntia	18,738.6	11.7	26,204.5	16.4	-4.7	32,405.4	20.2	37,241.4	23.3	-3.0
Pachyrhizus erosus	Yam-bean	49,994.8	15.9	35,311.2	11.2	4.7	48,231.4	15.3	50,879.4	16.2	-0.8
Pachyrhizus ferrugineus	Yam-bean	54,587.5	23.7	3,687.0	1.6	22.1	72,145.3	31.4	5,859.6	2.5	28.8
Persea americana	Avocado	47,655.4	12.8	61,909.6	16.7	-3.8	55,655.1	15.0	63,369.3	17.1	-2.1
Persea schiedeana	Avocado	10,615.2	6.5	15,543.3	9.5	-3.0	10,498.3	6.4	22,918.2	14.0	-7.6
Phaseolus acutifolius	Bean	87,487.4	19.7	57,872.9	13.1	6.7	102,644.4	23.2	77,082.1	17.4	5.8
Phaseolus acutifolius var. *acutifolius*	Bean	53,590.8	11.5	73,368.3	15.8	-4.3	59,148.5	12.7	101,475.2	21.9	-9.1
Phaseolus acutifolius var. *tenuifolius*	Bean	81,773.4	25.2	27,405.4	8.4	16.8	64,160.0	19.8	53,644.4	16.5	3.2
Phaseolus albescens	Bean	14,446.9	12.7	18,311.2	16.1	-3.4	8,178.0	7.2	37,193.5	32.8	-25.6
Phaseolus coccineus	Bean	17,827.2	4.7	23,924.5	6.2	-1.6	23,548.8	6.1	26,935.8	7.0	-0.9
Phaseolus coccineus subsp. *coccineus*	Bean	11,646.5	3.4	40,198.1	11.8	-8.4	19,352.9	5.7	37,793.5	11.1	-5.4
Phaseolus dumosus	Bean	20,681.3	13.1	20,286.4	12.8	0.2	20,104.3	12.7	26,180.6	16.6	-3.8
Phaseolus filiformis	Bean	19,328.0	12.2	3,474.2	2.2	10.0	19,577.2	12.3	4,882.1	3.1	9.2
Phaseolus maculatus subsp. *ritensis*	Bean	37,920.0	14.5	38,771.0	14.8	-0.3	31,944.4	12.2	50,074.4	19.1	-6.9
Phaseolus parvifolius	Bean	165,453.1	67.7	3,180.9	1.3	66.4	70,904.2	29.0	39,382.5	16.1	12.9
Phaseolus vulgaris	Bean	25,185.7	5.3	55,874.6	11.7	-6.4	43,520.9	9.1	45,682.1	9.6	-0.5
Phaseolus vulgaris var. *aborigineus*	Bean	32,822.3	10.9	20,453.2	6.8	4.1	37,418.7	12.4	40,884.3	13.6	-1.2
Physalis acutifolia	Husk tomato	6,510.4	2.4	50,393.5	18.5	-16.1	34,586.7	12.7	21,528.5	7.9	4.8
Physalis ampla	Husk tomato	59,227.1	11.1	112,894.5	21.2	-10.1	188,233.2	35.4	92,598.5	17.4	18.0
Physalis angulata	Husk tomato	83,304.0	25.5	44,120.8	13.5	12.0	65,012.9	19.9	95,143.1	29.2	-9.2
Physalis crassifolia	Husk tomato	4,722.0	1.4	34,252.2	10.1	-8.7	25,624.7	7.5	5,916.2	1.7	5.8
Physalis lagascae	Husk tomato	38,562.1	17.5	28,465.4	12.9	4.6	44,184.1	20.0	35,501.0	16.1	3.9
Physalis philadelphica	Husk tomato	86,836.6	22.5	13,963.9	3.6	18.9	46,772.7	12.1	33,992.5	8.8	3.3
Physalis sulphurea	Husk tomato	27,418.8	27.6	12,562.7	12.7	15.0	23,673.4	23.8	18,887.2	19.0	4.8
Pinus ayacahuite	Pinyon	15,747.4	6.2	30,540.3	12.1	-5.9	14,189.1	5.6	40,899.6	16.2	-10.6
Pinus cembroides	Pinyon	43,213.2	13.0	56,702.7	17.1	-4.1	51,418.1	15.5	61,581.9	18.6	-3.1
Pinus monophylla	Pinyon	9,866.7	79.1	1,249.8	10.0	69.0	17,778.3	142.5	282.7	2.3	140.2
Pinus quadrifolia	Pinyon	547.2	6.1	402.5	4.5	1.6	414.0	4.6	781.1	8.7	-4.1

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Pithecellobium dulce	Blackbead	30,354.4	6.0	20,624.7	4.1	1.9	31,874.4	6.3	24,139.2	4.7	1.5
Porophyllum gracile	Poreleaf, pipicha	29,301.1	19.5	8,756.9	5.8	13.7	18,030.3	12.0	22,193.6	14.8	-2.8
Porophyllum linaria	Poreleaf, pipicha	48,926.2	24.8	12,076.8	6.1	18.6	20,774.2	10.5	39,009.7	19.7	-9.2
Porophyllum ruderale	Poreleaf, pipicha	65,401.1	17.2	40,991.7	10.8	6.4	82,728.9	21.8	56,402.7	14.8	6.9
Porophyllum scoparium	Poreleaf, pipicha	17,762.0	9.2	16,724.0	8.7	0.5	22,124.6	11.5	17,061.4	8.9	2.6
Pouteria campechiana	Marmalade-plum, yellow sapote	25,160.8	8.1	52,204.0	16.8	-8.7	40,130.1	12.9	47,739.7	15.4	-2.5
Pouteria durlandii	Marmalade-plum, yellow sapote	53,331.0	41.9	6,066.7	4.8	37.2	111,598.8	87.7	3,106.2	2.4	85.3
Pouteria glomerata	Marmalade-plum, yellow sapote	1,709.8	1.2	36,188.2	25.4	-24.2	40,712.8	28.6	11,038.8	7.7	20.8
Pouteria reticulata	Marmalade-plum, yellow sapote	5,303.8	3.0	55,178.8	30.7	-27.8	3,406.1	1.9	59,795.4	33.3	-31.4
Pouteria sapota	Marmalade-plum, yellow sapote	5,196.4	1.4	56,642.3	15.1	-13.8	7,021.2	1.9	56,848.3	15.2	-13.3
Psidium guajava	Guava	61,044.2	12.2	74,732.1	14.9	-2.7	78,776.5	15.8	76,028.8	15.2	0.5
Psidium guineense	Guava	70,829.5	39.3	26,880.2	14.9	24.4	71,213.8	39.5	42,872.0	23.8	15.7
Psidium oligospermum	Guava	58,723.9	20.8	41,745.0	14.8	6.0	64,456.1	22.8	47,305.6	16.7	6.1
Salvia axillaris	Chia, sage	12,220.5	6.5	27,675.7	14.8	-8.3	30,135.9	16.1	17,761.0	9.5	6.6
Salvia carnea	Chia, sage	28,147.2	21.6	4,408.6	3.4	18.2	34,626.0	26.6	3,911.2	3.0	23.6
Salvia cinnabarina	Chia, sage	9,275.4	4.3	29,232.1	13.7	-9.3	10,759.0	5.0	34,411.3	16.1	-11.1
Salvia coccinea	Chia, sage	27,372.8	10.0	27,324.9	10.0	0.0	37,211.7	13.6	32,103.5	11.8	1.9
Salvia columbariae	Chia, sage	2,828.2	2.1	16,901.4	12.8	-10.6	13,245.1	10.0	10,622.9	8.0	2.0
Salvia elegans	Chia, sage	32,237.6	14.3	21,148.0	9.4	4.9	38,918.6	17.2	27,277.9	12.1	5.2
Salvia fluviatilis	Chia, sage	30,383.1	9.2	21,613.8	6.5	2.6	23,301.5	7.0	28,083.0	8.5	-1.4
Salvia helianthemifolia	Chia, sage	14,216.9	8.4	33,931.1	20.0	-11.6	14,479.5	8.5	41,224.5	24.3	-15.8
Salvia hispanica	Chia, sage	33,313.9	14.1	36,773.7	15.6	-1.5	60,455.8	25.6	30,573.9	13.0	12.7
Salvia laevis	Chia, sage	9,168.0	9.6	24,555.1	25.8	-16.2	20,928.5	22.0	15,786.7	16.6	5.4
Salvia lasiantha	Chia, sage	95,944.3	138.6	255.9	0.4	138.2	110,171.7	159.1	2,010.7	2.9	156.2
Salvia lasiocephala	Chia, sage	59,753.3	22.8	44,317.3	16.9	5.9	36,377.9	13.9	79,552.8	30.4	-16.5
Salvia leucantha	Chia, sage	13,335.2	3.8	50,975.3	14.4	-10.6	9,249.5	2.6	72,627.4	20.5	-17.9
Salvia longistyla	Chia, sage	10,522.3	10.3	24,116.2	23.6	-13.3	8,389.8	8.2	39,145.8	38.3	-30.1
Salvia mexicana	Chia, sage	13,487.5	4.0	67,641.8	20.2	-16.2	55,535.3	16.6	28,826.7	8.6	8.0
Salvia microphylla	Chia, sage	18,650.4	6.6	35,969.6	12.8	-6.2	18,004.5	6.4	47,308.5	16.9	-10.4
Salvia misella	Chia, sage	95,363.5	32.4	19,709.5	6.7	25.7	111,686.0	38.0	27,191.7	9.2	28.7
Salvia mocinoi	Chia, sage	60,350.3	27.5	14,456.5	6.6	20.9	11,264.1	5.1	42,416.8	19.3	-14.2
Salvia occidentalis	Chia, sage	16,406.8	4.8	116,696.5	34.4	-29.5	46,986.4	13.8	92,549.6	27.2	-13.4
Salvia patens	Chia, sage	6,593.8	2.9	51,656.7	22.9	-20.0	8,171.3	3.6	58,955.9	26.2	-22.5

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Salvia polystachia	Chia, sage	30,217.3	12.8	31,437.4	13.4	-0.5	12,917.3	5.5	67,073.5	28.5	-23.0
Salvia prunelloides	Chia, sage	5,040.2	2.5	21,172.9	10.5	-8.0	7,035.6	3.5	22,670.9	11.2	-7.7
Salvia purpurea	Chia, sage	44,214.7	18.0	14,534.1	5.9	12.1	21,054.1	8.6	43,234.3	17.6	-9.0
Salvia regla	Chia, sage	39,917.3	11.2	36,268.7	10.2	1.0	23,916.8	6.7	67,415.6	18.9	-12.2
Salvia setulosa	Chia, sage	32,687.1	17.3	3,656.3	1.9	15.4	40,172.2	21.3	15,080.4	8.0	13.3
Salvia thyrsiflora	Chia, sage	27,938.3	18.7	22,659.4	15.2	3.5	26,080.9	17.5	32,239.6	21.6	-4.1
Salvia tiliifolia	Chia, sage	61,672.9	16.2	20,792.4	5.4	10.7	80,550.5	21.1	21,886.0	5.7	15.4
Sechium chinantlense	Chayote	16,594.7	38.3	3,301.7	7.6	30.7	18,863.2	43.6	5,545.3	12.8	30.7
Sechium compositum	Chayote	7,550.3	29.9	3,529.8	14.0	15.9	1,477.9	5.9	8,119.5	32.2	-26.3
Sechium edule subsp. *sylvestre*	Chayote	35,928.4	34.0	11,555.4	10.9	23.1	34,616.4	32.7	15,187.7	14.4	18.4
Sechium hintonii	Chayote	41,913.6	24.3	10,691.9	6.2	18.1	34,684.4	20.1	16,490.2	9.6	10.6
Simmondsia chinensis	Goatnut	10,101.5	5.5	19,045.3	10.4	-4.9	10,194.5	5.5	24,677.8	13.4	-7.9
Solanum bulbocastanum	Potato	17,597.1	6.7	28,038.9	10.7	-4.0	23,114.6	8.8	33,813.2	12.9	-4.1
Solanum cardiophyllum	Potato	32,458.1	13.6	34,991.1	14.7	-1.1	48,946.4	20.5	28,722.2	12.0	8.5
Solanum clarum	Potato	15,159.0	14.9	23,712.7	23.3	-8.4	27,217.6	26.8	30,610.3	30.1	-3.3
Solanum demissum	Potato	37,806.9	22.6	15,976.5	9.5	13.0	43,945.4	26.2	21,478.7	12.8	13.4
Solanum ehrenbergii	Potato	34,913.5	18.4	12,569.4	6.6	11.8	46,349.1	24.4	12,603.9	6.6	17.8
Solanum hjertingii	Potato	12,760.1	4.1	44,646.0	14.2	-10.2	45,080.2	14.4	33,562.1	10.7	3.7
Solanum hougasii	Potato	39,315.4	28.3	8,416.7	6.1	22.3	19,520.7	14.1	29,467.9	21.2	-7.2
Solanum iopetalum	Potato	16,290.9	7.2	16,271.7	7.2	0.0	21,749.9	9.6	18,497.1	8.2	1.4
Solanum morelliforme	Potato	34,739.1	30.1	15,321.0	13.3	16.8	24,139.2	20.9	21,864.9	18.9	2.0
Solanum oxycarpum	Potato	11,630.2	8.7	14,890.6	11.1	-2.4	11,065.7	8.2	30,830.7	23.0	-14.7
Solanum pinnatisectum	Potato	20,566.3	26.6	17,990.1	23.3	3.3	26,373.2	34.1	22,297.1	28.8	5.3
Solanum polyadenium	Potato	42,550.0	23.0	16,630.1	9.0	14.0	22,308.6	12.1	44,094.0	23.8	-11.8
Solanum schenckii	Potato	72,899.6	40.5	7,707.4	4.3	36.2	72,834.4	40.5	15,250.0	8.5	32.0
Solanum stenophyllidium	Potato	47,122.5	17.8	43,369.4	16.4	1.4	61,460.2	23.2	39,164.0	14.8	8.4
Solanum stoloniferum	Potato	18,907.3	4.7	33,006.3	8.2	-3.5	52,191.5	13.0	10,529.0	2.6	10.4
Solanum tarnii	Potato	5,483.0	8.3	19,944.3	30.1	-21.8	7,710.3	11.6	20,484.8	30.9	-19.3
Solanum trifidum	Potato	8,212.5	6.4	30,370.7	23.8	-17.3	4,581.1	3.6	48,499.7	37.9	-34.4
Solanum verrucosum	Potato	30,649.6	13.7	18,509.5	8.3	5.4	47,228.9	21.1	14,818.8	6.6	14.5
Spondias mombin	Purple mombin	121,550.8	41.6	5,967.9	2.0	39.6	82,900.5	28.4	21,318.6	7.3	21.1
Spondias purpurea	Yellow mombin	73,903.0	18.8	44,069.1	11.2	7.6	47,450.3	12.1	85,961.6	21.8	-9.8
Stenocereus alamosensis	Pitaya, cina	650.8	0.5	24,845.5	17.7	-17.2	10,384.2	7.4	12,265.6	8.7	-1.3
Stenocereus beneckei	Pitaya, cina	3,926.6	5.1	21,249.6	27.6	-22.5	9,732.5	12.6	21,063.7	27.3	-14.7
Stenocereus chrysocarpus	Pitaya, cina	1,863.1	2.6	9,530.3	13.5	-10.9	1,698.3	2.4	14,028.1	19.9	-17.5
Stenocereus eruca	Pitaya, cina	6,755.7	6.4	10,155.2	9.6	-3.2	5,585.5	5.3	14,099.0	13.3	-8.0
Stenocereus fricii	Pitaya, cina	1,561.2	2.3	7,368.2	10.7	-8.5	476.3	0.7	15,231.8	22.2	-21.5
Stenocereus griseus	Pitaya, cina	25,448.3	9.4	34,843.5	12.9	-3.5	34,307.8	12.7	44,230.1	16.4	-3.7

Supplementary Table 4.3. Changes in the potential distribution ranges of crop wild relatives in Mexico considering unlimited and no-migration scenarios, under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

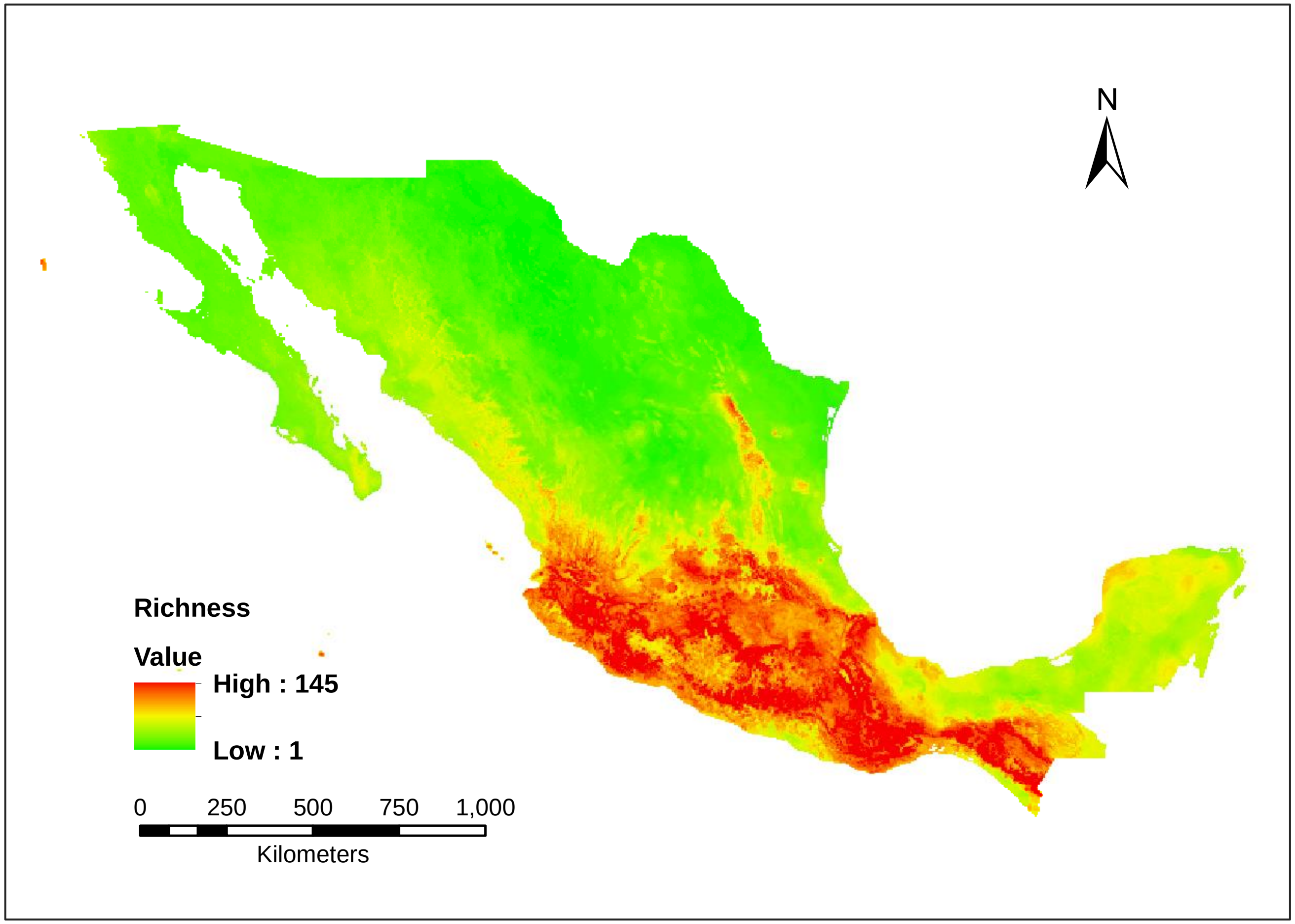
		RCP8.5, 2050					RCP8.5, 2070				
CWR taxa	Crop gene pool	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)	Gain (Km^2)	% Gain	Loss (Km^2)	% Change (No-migration)	% Change (Unlimited migration)
Stenocereus gummosus	Pitaya, cina	2,960.5	2.0	14,560.0	10.0	-8.0	10,612.3	7.3	7,409.4	5.1	2.2
Stenocereus kerberi	Pitaya, cina	14,315.6	9.6	11,555.4	7.8	1.9	2,748.7	1.9	32,843.3	22.1	-20.3
Stenocereus montanus	Pitaya, cina	12,696.9	7.1	26,861.0	15.0	-7.9	11,306.2	6.3	43,181.6	24.2	-17.8
Stenocereus pruinosus	Pitaya, cina	39,184.1	16.3	37,746.5	15.7	0.6	35,778.9	14.9	62,490.4	26.0	-11.1
Stenocereus queretaroensis	Pitaya, cina	31,718.2	12.9	21,700.1	8.9	4.1	42,130.2	17.2	25,241.3	10.3	6.9
Stenocereus quevedonis	Pitaya, cina	22,110.2	31.9	36.4	0.1	31.9	30,216.4	43.6	28.8	0.0	43.6
Stenocereus standleyi	Pitaya, cina	26,127.9	11.8	9,377.9	4.2	7.6	23,601.5	10.6	16,780.6	7.6	3.1
Stenocereus stellatus	Pitaya, cina	18,821.0	13.3	26,232.3	18.5	-5.2	27,967.0	19.7	38,323.5	27.0	-7.3
Stenocereus thurberi	Pitaya, cina	55,025.5	26.4	11,614.8	5.6	20.8	27,321.1	13.1	23,019.8	11.0	2.1
Stenocereus treleasei	Pitaya, cina	1,067.7	3.9	7,697.9	27.8	-24.0	1,158.7	4.2	8,687.9	31.4	-27.2
Tagetes micrantha	Marigold	8,053.4	2.5	80,375.1	25.0	-22.5	32,599.0	10.1	51,340.4	16.0	-5.8
Tagetes stenophylla	Marigold	9,073.2	5.7	39,153.4	24.4	-18.8	11,017.7	6.9	58,047.3	36.2	-29.3
Tripsacum bravum	Maize	5,964.1	4.5	47,226.0	35.6	-31.1	2,986.4	2.2	73,024.2	55.0	-52.8
Tripsacum dactyloides var. *hispidum*	Maize	8,136.8	2.9	87,319.7	31.5	-28.5	18,231.6	6.6	76,810.8	27.7	-21.1
Tripsacum dactyloides var. *mexicanum*	Maize	39,127.6	15.2	9,963.5	3.9	11.3	64,030.6	24.8	45,619.8	17.7	7.1
Tripsacum zopilotense	Maize	4,996.1	5.4	38,477.8	41.5	-36.1	6,313.0	6.8	46,608.8	50.3	-43.5
Zea diploperennis	Maize	33,273.7	24.4	30,585.4	22.4	2.0	36,265.8	26.6	32,507.9	23.8	2.8
Zea mays subsp. *mexicana*	Maize	27,605.7	17.2	25,226.0	15.7	1.5	22,258.8	13.9	29,020.3	18.1	-4.2
Zea mays subsp. *parviglumis*	Maize	28,955.1	27.1	7,203.3	6.7	20.3	18,581.4	17.4	15,360.2	14.3	3.0
Zea perennis	Maize	26,011.9	43.4	8,939.9	14.9	28.5	2,758.3	4.6	27,813.7	46.4	-41.8
Average		32,805.2	15.4	31,748.0	14.5	0.9	36,042.7	18.0	37,233.1	17.5	0.5

Supplementary Table 4.4. Threat categories of Mexican crop wild relatives based on the A3(c) criterion of IUCN Red List, under unlimited and no-migration scenarios under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070)

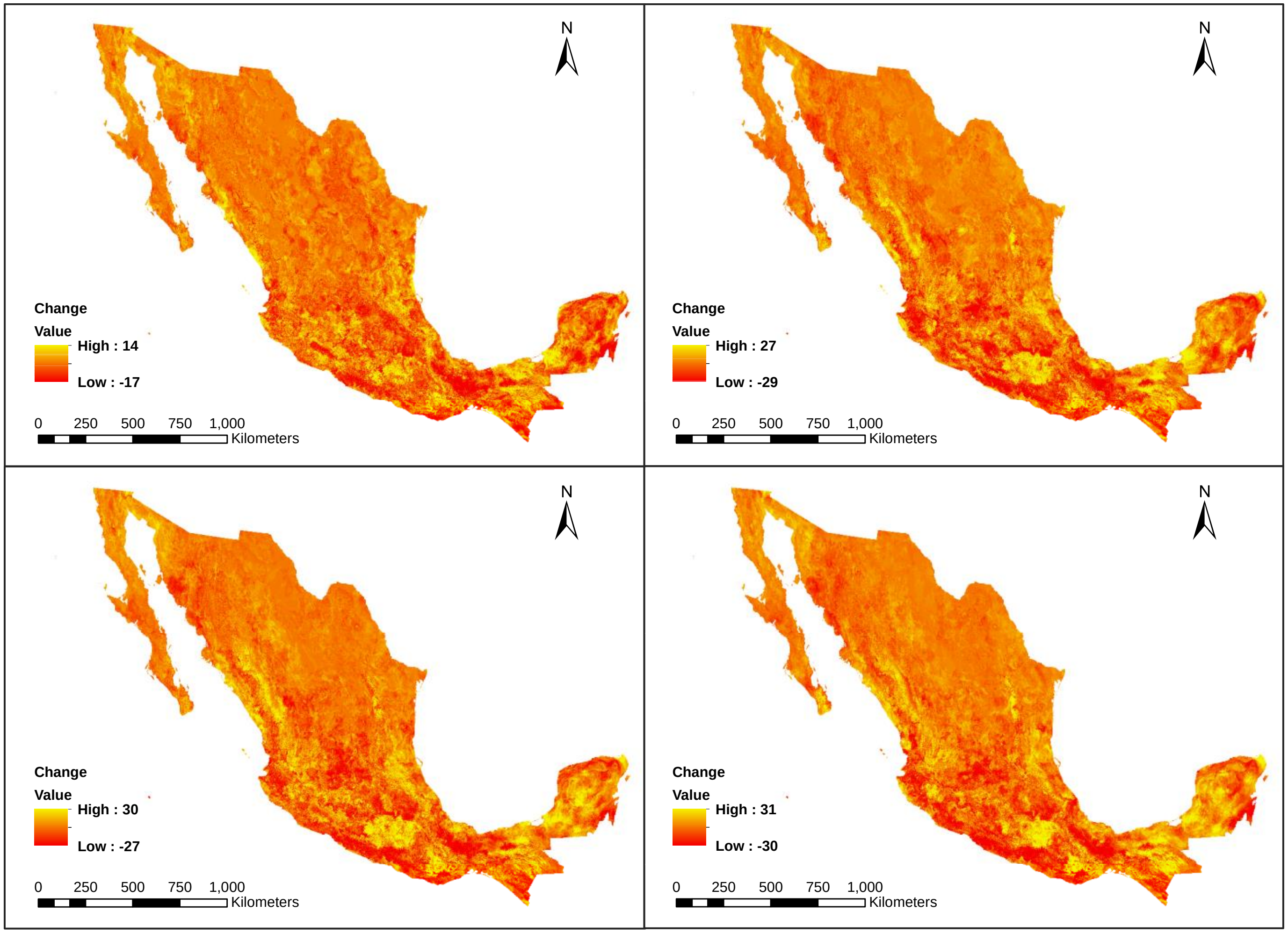
Crop gene pool	CWR	Unlimited				No-migration			
		RCP4.5		RCP8.5		RCP4.5		RCP8.5	
		2050	2070	2050	2070	2050	2070	2050	2070
Agave	*Agave datylio*		VU				VU		
Agave	*Agave fourcroydes*							VU	VU
Agave	*Agave hiemiflora*		VU	EN	VU	VU	VU	EN	VU
Agave	*Agave kewensis*			VU	EN	VU		EN	EN
Agave	*Agave macroacantha*	EN	EN	EN	EN	EN	EN	EN	EN
Agave	*Agave seemanniana*	VU		VU		VU		VU	
Agave	*Agave tequilana*	VU	VU			VU	VU	VU	VU
Amaranth	*Amaranthus australis*		VU	EN	EN		EN	EN	EN
Amaranth	*Amaranthus caudatus*	EN	EN	EN	EN	EN	EN	EN	EN
Amaranth	*Amaranthus cruentus*				VU			VU	VU
Amaranth	*Amaranthus scariosus*				VU				VU
Annona	*Annona purpurea*								VU
Pecan	*Carya palmeri*			VU	VU			VU	VU
Pumpkin, squash, cushaw	*Cucurbita pepo* subsp. *fraterna*							VU	VU
Cotton	*Gossypium gossypioides*								VU
Cotton	*Gossypium thurberi*				VU				VU
Sunflower	*Helianthus laciniatus*					VU			
Papaya	*Jarilla caudata*	VU				VU			
Physic nut	*Jatropha andrieuxii*						VU		VU
Cassava	*Manihot michaelis*			VU				VU	
Cassava	*Manihot pauciflora*	VU				VU			
Cassava	*Manihot pringlei*					VU			
Bean	*Phaseolus albescens*								VU
Pinyon	*Pinus ayacahuite*	VU				VU			
Marmalade-plum, yellow sapote	*Pouteria reticulata*				VU			VU	VU
Guava	*Psidium guineense*		EN				EN		
Chia, sage	*Salvia cinnabarina*		VU				VU		
Chia, sage	*Salvia lasiocephala*								VU
Chia, sage	*Salvia longistyla*				VU		VU		VU
Chia, sage	*Salvia occidentalis*							VU	
Chayote	*Sechium compositum*								VU
Potato	*Solanum clarum*								VU
Potato	*Solanum tarnii*						VU	VU	VU
Potato	*Solanum trifidum*				VU		VU		VU
Pitaya, cina	*Stenocereus beneckei*	VU				VU			
Pitaya, cina	*Stenocereus stellatus*		VU				VU		
Pitaya, cina	*Stenocereus treleasei*						VU		VU
Marigold	*Tagetes stenophylla*	VU				VU			VU

Supplementary Table 4.4. Threat categories of Mexican crop wild relatives based on the A3(c) criterion of IUCN Red List, under unlimited and no-migration scenarios under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070) (continued)

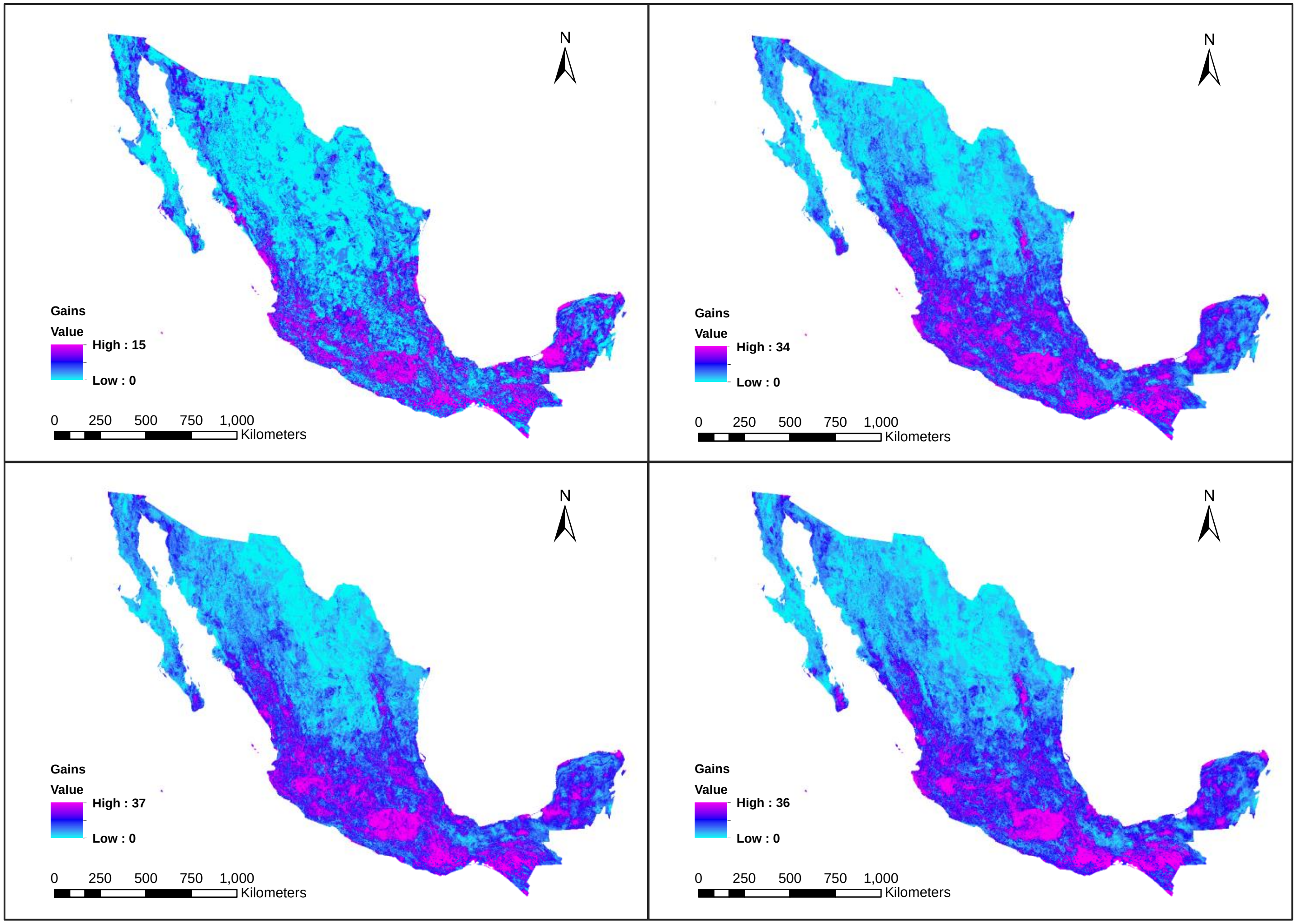
Crop gene pool	CWR	Unlimited				No-migration			
		RCP4.5		RCP8.5		RCP4.5		RCP8.5	
		2050	2070	2050	2070	2050	2070	2050	2070
Maize	*Tripsacum bravum*			VU	EN		VU	VU	EN
Maize	*Tripsacum dactyloides* var. *hispidum*		VU			VU	VU	VU	
Maize	*Tripsacum zopilotense*		VU	VU	VU		VU	VU	EN
Maize	*Zea diploperennis*						VU		
Maize	*Zea perennis*	VU			VU	VU	VU		VU



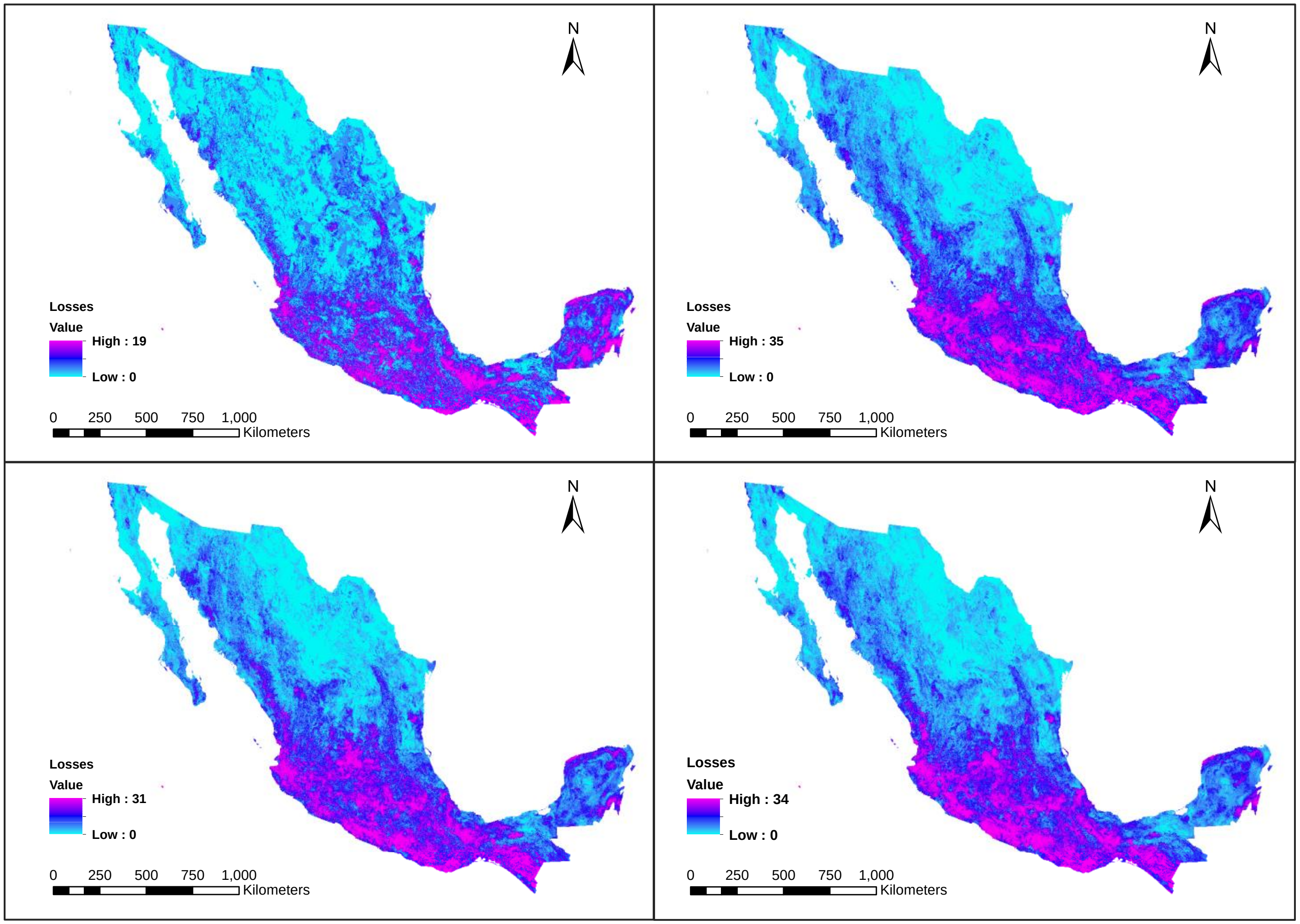
Supplementary Figure 4.1. Current taxon richness of 225 crop wild relatives in Mexico. Size of grid cell is approx. 5 x 5 Km.



Supplementary Figure 4.2. Changes in taxon richness (total gain or loss) of crop wild relatives in Mexico considering an unlimited migration scenario under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070). Size of grid cell is approx. 5 x 5 Km.



Supplementary Figure 4.3. Total gains of crop wild relatives in Mexico considering an unlimited migration scenario under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070). Size of grid cell is approx. 5 x 5 Km.



Supplementary Figure 4.4. Total losses of crop wild relatives in Mexico considering an unlimited migration scenario under RCP4.5 and RCP8.5 for the years 2041-2060 (2050) and 2061-2080 (2070). Size of grid cell is approx. 5 x 5 Km.

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Caricaceae	*Carica papaya*	Papaya	DD		No	Contreras, A.	Fielder, H.			Contreras, A. 2016. Carica papaya. The IUCN Red List of Threatened Species 2016: e.T20681422A20694916. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T20681422A20694916.en. Downloaded on 21 January 2018.
Cucurbitaceae	*Cucurbita argyrosperma*	Pumpkin, squash, cushaw	LC		No	Contreras, A.,Sánchez de la Vega, G.,Castellanos Morales, G.,Aragón Cuevas, F.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita cordata*	Pumpkin, squash, cushaw	DD		Yes	Contreras, A.,Aragón Cuevas, F.,Sánchez de la Vega, G.,Castellanos Morales, G.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita digitata*	Pumpkin, squash, cushaw	LC		No	Sánchez de la Vega, G.,Aragón Cuevas, F.,Contreras, A.	Kell, S.P.		Superina, M.	Workshop
Cucurbitaceae	*Cucurbita foetidissima*	Pumpkin, squash, cushaw	LC		No	Sánchez de la Vega, G.,Castellanos Morales, G.,Aragón Cuevas, F.,Contreras, A.	Kell, S.P.		Falcao Boueres, L.,Superina, M.	Workshop
Cucurbitaceae	*Cucurbita lundelliana*	Pumpkin, squash, cushaw	LC		No	Aragón Cuevas, F.,Castellanos Morales, G.,Contreras, A.,Sánchez de la Vega, G.,Azurdia, C.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita okeechobeensis* subsp. *martinezii*	Pumpkin, squash, cushaw	EN	B2ab(iii)	Yes	Sánchez de la Vega, G.,Castellanos Morales, G.,Contreras, A.,Aragón Cuevas, F.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita palmata*	Pumpkin, squash, cushaw	DD		No	Aragón Cuevas, F.,Sánchez de la Vega, G.,Contreras, A.	Kell, S.P.		Superina, M.	Workshop
Cucurbitaceae	*Cucurbita pedatifolia*	Pumpkin, squash, cushaw	DD		Yes	Aragón Cuevas, F.,Sánchez de la Vega, G.,Contreras, A.,Castellanos Morales, G.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita pepo* subsp. *fraterna*	Pumpkin, squash, cushaw	NT	B2a	Yes	Castellanos Morales, G.,Sánchez de la Vega, G.,Contreras, A.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Cucurbitaceae	*Cucurbita radicans*	Pumpkin, squash, cushaw	EN	B2ab(iii)	Yes	Sánchez de la Vega, G.,Aragón Cuevas, F.,Contreras, A.	Kell, S.P.		Superina, M.	Workshop
Malvaceae	*Gossypium thurberi*	Cotton	EN	B2ab(i,ii,iii)	No	Alavez, V.,Contreras, A.,Wegier, A.,Vega, M.	Kell, S.P.		Superina, M.	Workshop
Asteraceae	*Helianthus annuus*	Sunflower	LC		No	Contreras, A., Rhodes, L. & Maxted, N.	Fielder, H.			Contreras, A., Rhodes, L. & Maxted, N. 2016. Helianthus annuus. The IUCN Red List of Threatened Species 2016: e.T19073408A47600755. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T19073408A47600755.en. Downloaded on 21 January 2018.

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Asteraceae	*Helianthus californicus*	Sunflower	LC		No	Contreras, A., Rhodes, L. & Maxted, N.	Fielder, H.			Contreras, A., Rhodes, L. & Maxted, N. 2016. Helianthus californicus. The IUCN Red List of Threatened Species 2016: e.T20694276A20695281. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T20694276A20695281.en. Downloaded on 21 January 2018
Asteraceae	*Helianthus hirsutus*	Sunflower	LC		No	Contreras, A., Rhodes, L. & Maxted, N.	Fielder, H.			Contreras, A., Rhodes, L. & Maxted, N. 2016. Helianthus hirsutus. The IUCN Red List of Threatened Species 2016: e.T64990398A64990486. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T64990398A64990486.en. Downloaded on 21 January 2018
Asteraceae	*Helianthus niveus*	Sunflower	DD		No	Contreras, A., Rhodes, L. & Maxted, N.	Fielder, H.			Contreras, A., Rhodes, L. & Maxted, N. 2016. Helianthus niveus. The IUCN Red List of Threatened Species 2016: e.T20694323A20695326. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T20694323A20695326.en. Downloaded on 21 January 2018
Cactaceae	*Hylocereus ocamponis*	Pitahaya	LC		Yes	Terrazas, T., Arreola, H. & Cházaro, M.	Superina, M. & Goettsch, B.K.		Schipper, J.	Terrazas, T., Arreola, H. & Cházaro, M. 2017. Hylocereus ocamponis (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151854A121511171. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151854A121511171.en. Downloaded on 21 January 2018
Convolvulaceae	*Ipomoea triloba*	Sweet-potato	LC		No	Contreras, A.	Fielder, H.			Assessment
Cactaceae	*Opuntia ficus-indica*	Opuntia	DD		Yes	Arreola, H., Ishiki, M. & Terrazas, T.	Goettsch, B.K.		Hilton-Taylor, C.	Arreola, H., Ishiki, M. & Terrazas, T. 2017. Opuntia ficus-indica (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151706A121563254. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151706A121563254.en. Downloaded on 21 January 2018.

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Cactaceae	*Opuntia hyptiacantha*	Opuntia	LC		Yes	Guadalupe Martínez, J., Sánchez , E., Bárcenas Luna, R. & Gómez-Hinostrosa, C.	Goettsch, B.K. & Superina, M.		Schipper, J.	Guadalupe Martínez, J., Sánchez , E., Bárcenas Luna, R. & Gómez-Hinostrosa, C. 2017. Opuntia hyptiacantha (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152544A121599196. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152544A121599196.en. Downloaded on 21 January 2018.
Cactaceae	*Opuntia lasiacantha*	Opuntia	LC		Yes	Arias, S., Arreola, H., Bárcenas Luna, R., Cházaro, M., Guadalupe Martínez, J., Sánchez , E. & Terrazas, T.	Superina, M. & Goettsch, B.K.		Wyatt, S.	Arias, S., Arreola, H., Bárcenas Luna, R., Cházaro, M., Guadalupe Martínez, J., Sánchez , E. & Terrazas, T. 2017. Opuntia lasiacantha (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152681A121604467. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152681A121604467.en. Downloaded on 21 January 2018.
Cactaceae	*Opuntia streptacantha*	Opuntia	LC		Yes	Arias, S., Arreola, H., Cházaro, M., Gómez-Hinostrosa, C., Hernández, H.M. & Terrazas, T.	Superina, M. & Goettsch, B.K.		Schipper, J.	Arias, S., Arreola, H., Cházaro, M., Gómez-Hinostrosa, C., Hernández, H.M. & Terrazas, T. 2017. Opuntia streptacantha (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152896A121615882. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152896A121615882.en. Downloaded on 21 January 2018
Cactaceae	*Opuntia velutina*	Opuntia	DD		Yes	Hernández, H.M., Cházaro, M. & Gómez-Hinostrosa, C.	Goettsch, B.K.		Goettsch, B.K.	Hernández, H.M., Cházaro, M. & Gómez-Hinostrosa, C. 2017. Opuntia velutina (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151723A121564245. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151723A121564245.en. Downloaded on 21 January 2018
Cactaceae	*Opuntia wilcoxii*	Opuntia	LC		Yes	Puente, R.	Goettsch, B.K. & Superina, M.		Hilton-Taylor, C.	Puente, R. 2017. Opuntia wilcoxii (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152789A121610248. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152789A121610248.en. Downloaded on 21 January 2018

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Lauraceae	*Persea americana*	Avocado	LC		No	Wegier, A., Lorea Hernández, F., Contreras, A., Tobón, W. & Mastretta-Yanes, A.	Kell, S.P.		Carr, J.	Wegier, A., Lorea Hernández, F., Contreras, A., Tobón, W. & Mastretta-Yanes, A. 2017. Persea americana. The IUCN Red List of Threatened Species 2017: e.T96986556A96986588. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T96986556A96986588.en. Downloaded on 21 January 2018.
Lauraceae	*Persea schiedeana*	Avocado	EN	A2c	No	Wegier, A., Lorea Hernández, F., Contreras, A., Tobón, W. & Mastretta-Yanes, A.	Hammel, B. & Kell, S.P.		Carr, J.	Wegier, A., Lorea Hernández, F., Contreras, A. & Mastretta-Yanes, A. 2017. Persea schiedeana. The IUCN Red List of Threatened Species 2017: e.T34402A61528670. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T34402A61528670.en. Downloaded on 21 January 2018.
Fabaceae	*Phaseolus acutifolius*	Bean	LC		No	Alejandre-Iturbide, G.,Delgado-Salinas, A.,Contreras, A.	Fielder, H.,Kell, S.P.		Kell, S.P.,Harris, C.	Workshop
Fabaceae	*Phaseolus coccineus*	Bean	LC		No	Contreras, A.,Cerén-López, J.,Alejandre-Iturbide, G.,Azurdia, C.,Delgado-Salinas, A.		Kell, S.P.	Goettsch, B.,Harris, C.	Workshop
Fabaceae	*Phaseolus vulgaris*	Bean	LC		No	Azurdia, C.,Contreras, A.,Delgado-Salinas, A.,Alejandre-Iturbide, G.,Cerén-López, J.		Kell, S.P.	Harris, C.,Goettsch, B.	Workshop
Solanaceae	*Physalis ampla*	Husk tomato	LC		Yes	Martínez, M., Vargas-Ponce, O. & González Pérez, E.	Kell, S.P.		Tognelli, M., Castillo, O	Martínez, M., Vargas-Ponce, O. & González Pérez, E. 2017. Physalis ampla. The IUCN Red List of Threatened Species 2017: e.T103299667A104039586. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T103299667A104039586.en. Downloaded on 21 January 2018
Solanaceae	*Physalis angulata*	Husk tomato	LC		No	Vargas-Ponce, O., González Pérez, E., Martínez, M. & Contreras, A.	Kell, S.P.		Tognelli, M., Castillo, O.	Vargas-Ponce, O., González Pérez, E., Martínez, M. & Contreras, A. 2017. Physalis angulata. The IUCN Red List of Threatened Species 2017: e.T19241191A106128043. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T19241191A106128043.en. Downloaded on 21 January 2018.
Solanaceae	*Physalis microcarpa*	Husk tomato	LC		No	Vargas-Ponce, O.,Martínez, M.,Contreras, A.	Goettsch, B.		Tognelli, M.	Workshop

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Solanaceae	*Physalis philadelphica*	Husk tomato	LC		No	Contreras, A., Vargas-Ponce, O. & Martínez, M.	Goettsch, B.		García Rawlins, A.	Contreras, A., Vargas-Ponce, O. & Martínez, M. 2017. Physalis philadelphica. The IUCN Red List of Threatened Species 2017: e.T109716592A109716595. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T109716592A109716595.en. Downloaded on 21 January 2018
Pinaceae	*Pinus cembroides*	Pinyon	LC		No	Farjon, A.	Thomas, P. & Perez de la Rosa, J.			Farjon, A. 2013a. Pinus cembroides. The IUCN Red List of Threatened Species 2013: e.T42350A2974560. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T42350A2974560.en (accessed 12 June 2017).
Pinaceae	*Pinus maximartinezii*	Pinyon	EN	B1ab(ii,iii)+2ab(ii,iii)	Yes	Farjon, A.	Thomas, P. & Perez de la Rosa, J.			Farjon, A. 2013b. Pinus maximartinezii. The IUCN Red List of Threatened Species 2013: e.T30975A2799675. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T30975A2799675.en (accessed 12 June 2017).
Pinaceae	*Pinus monophylla*	Pinyon	LC		No	Farjon, A.	Thomas, P. & Stritch, L.			Farjon, A. 2013c. Pinus monophylla. The IUCN Red List of Threatened Species 2013: e.T42381A2976514. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T42381A2976514.en (accessed 12 June 2017).
Pinaceae	*Pinus quadrifolia*	Pinyon	LC		No	Farjon, A.	Perez de la Rosa, J., Stritch, L. & Thomas, P.			Farjon, A. 2013d. Pinus quadrifolia. The IUCN Red List of Threatened Species 2013: e.T42407A2977910. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T42407A2977910.en (accessed 12 June 2017).
Sapotaceae	*Pouteria belizensis*	Marmalade-plum, yellow sapote	VU	B1+2c	No	World Conservation Monitoring Centre				World Conservation Monitoring Centre. 1998b. Pouteria belizensis. The IUCN Red List of Threatened Species 1998: e.T37695A10067842. http://dx.doi.org/10.2305/IUCN.UK.1998.RLTS.T37695A10067842.en (accessed 12 June 2017).
Sapotaceae	*Pouteria rhynchocarpa*	Marmalade-plum, yellow sapote	EN	B1+2c	Yes	World Conservation Monitoring Centre				World Conservation Monitoring Centre. 1998c. Pouteria rhynchocarpa. The IUCN Red List of Threatened Species 1998: e.T34412A9865563. http://dx.doi.org/10.2305/IUCN.UK.1998.RLTS.T34412A9865563.en (accessed 12 June 2017).

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Solanaceae	*Solanum bulbocastanum*	Potato	LC		No	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum cardiophyllum*	Potato	LC		Yes	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum clarum*	Potato	VU	B1ab(iii)	No	Rodríguez Contreras, A.,Contreras, A.,Ramírez, D.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum demissum*	Potato	LC		No	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum ehrenbergii*	Potato	LC		Yes	Rodríguez Contreras, A.,Ramírez, D.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum guerreroense*	Potato	DD		Yes	Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum hintonii*	Potato	NT	C2a(i)	Yes	Ramírez, D.,Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum hjertingii*	Potato	LC		Yes	Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum hougasii*	Potato	LC		Yes	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum iopetalum*	Potato	LC		Yes	Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum morelliforme*	Potato	LC		No	Contreras, A.,Rodríguez Contreras, A.,Ramírez, D.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum oxycarpum*	Potato	EN	B2ab(iii)	Yes	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum pinnatisectum*	Potato	LC		Yes	Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum polyadenium*	Potato	LC		Yes	Ramírez, D.,Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum schenckii*	Potato	EN	B2ab(iii)	Yes	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum stenophyllidium*	Potato	LC		Yes	Rodríguez Contreras, A.,Ramírez, D.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum stoloniferum*	Potato	LC		No	Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum tarnii*	Potato	EN	B1ab(iii)	Yes	Ramírez, D.,Contreras, A.,Rodríguez Contreras, A.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum trifidum*	Potato	NT	B1a	Yes	Contreras, A.,Rodríguez Contreras, A.,Ramírez, D.	Kell, S.P.		Carr, J.	Workshop
Solanaceae	*Solanum verrucosum*	Potato	LC		Yes	Rodríguez Contreras, A.,Contreras, A.	Kell, S.P.		Carr, J.	Workshop

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Cactaceae	*Stenocereus alamosensis*	Pitaya, cina	VU	A2c	Yes	Burquez Montijo, A., Felger, R.S. & Van Devender, T.	Goettsch, B.K.			Burquez Montijo, A., Felger, R.S. & Van Devender, T. 2017. Stenocereus alamosensis (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T159212A121624114. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T159212A121624114.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus beneckei*	Pitaya, cina	NT		Yes	Arreola, H. & Terrazas, T.	Schipper, J.			Arreola, H. & Terrazas, T. 2017. Stenocereus beneckei (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151847A121570320. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151847A121570320.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus chrysocarpus*	Pitaya, cina	EN	B1ab(v)	Yes	Terrazas, T., Cházaro, M. & Arreola, H.	Goettsch, B.K. & Hilton-Taylor, C.		Schipper, J.	Terrazas, T., M. Cházaro, and H. Arreola. 2013a. Stenocereus chrysocarpus. The IUCN Red List of Threatened Species 2013: e.T152821A682609. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T152821A682609.en (accessed 12 June 2017)
Cactaceae	*Stenocereus eichlamii*	Pitaya, cina	DD		No	Arias, S., Durán, R., Hammel, B., Tapia, J.L., Hernández, H.M. & Véliz, M.	Goettsch, B.K.		Hilton-Taylor, C.	Arias, S., Durán, R., Hammel, B., Tapia, J.L., Hernández, H.M. & Véliz, M. 2017. Stenocereus eichlamii (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152494A121595763. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152494A121595763.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus eruca*	Pitaya, cina	LC		Yes	Burquez Montijo, A. & Porter, J.M.	Superina, M. & Goettsch, B.K.		Goettsch, B.K.	Burquez Montijo, A. & Porter, J.M. 2017. Stenocereus eruca (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152511A121596986. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152511A121596986.en. Downloaded on 21 January 2018.

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Cactaceae	*Stenocereus fricii*	Pitaya, cina	LC		Yes	Terrazas, T., Cházaro, M. & Arreola, H.	Superina, M. & Goettsch, B.K.		Schipper, J.	Terrazas, T., Cházaro, M. & Arreola, H. 2017. Stenocereus fricii (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152242A121585067. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152242A121585067.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus griseus*	Pitaya, cina	LC		No	Arreola, H. & Nassar, J.	Goettsch, B.K. & Superina, M.		Hilton-Taylor, C.	Arreola, H. & Nassar, J. 2017. Stenocereus griseus (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152521A121598350. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152521A121598350.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus gummosus*	Pitaya, cina	LC		Yes	Burquez Montijo, A., Porter, J.M. & Felger, R.S.	Superina, M. & Goettsch, B.K.			Burquez Montijo, A., Porter, J.M. & Felger, R.S. 2017. Stenocereus gummosus (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152500A121596236. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152500A121596236.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus kerberi*	Pitaya, cina	LC		Yes	Terrazas, T., Cházaro, M. & Arreola, H.	Superina, M. & Goettsch, B.K.		Schipper, J.	Terrazas, T., Cházaro, M. & Arreola, H. 2017. Stenocereus kerberi (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152497A121595945. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152497A121595945.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus martinezii*	Pitaya, cina	EN	B1ab(i,iii)	Yes	Terrazas, T., Cházaro, M. & Arreola, H.	Chanson, J.S. & Goettsch, B.K.		Schipper, J.	Terrazas, T., M. Cházaro, and H. Arreola. 2013b. Stenocereus martinezii. The IUCN Red List of Threatened Species 2013: e.T152657A662348. http://dx.doi.org/10.2305/IUCN.UK.2013-1.RLTS.T152657A662348.en (accessed 12 June 2017).

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Cactaceae	*Stenocereus montanus*	Pitaya, cina	LC		Yes	Burquez Montijo, A. & Felger, R.S.	Goettsch, B.K.		Gaston, K.	Burquez Montijo, A. & Felger, R.S. 2017. Stenocereus montanus (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152672A121603687. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152672A121603687.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus pruinosus*	Pitaya, cina	LC		Yes	Arreola, H.	Superina, M. & Goettsch, B.K.		Goettsch, B.K.	Arreola, H. 2017. Stenocereus pruinosus (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152139A121580469. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152139A121580469.en. Downloaded on 21 January 2018.
Cactaceae	*Stenocereus queretaroensis*	Pitaya, cina	LC		Yes	Superina, M. & Goettsch, B.K.	Schipper, J.			Arreola, H., Bárcenas Luna, R., Cházaro, M., Guadalupe Martínez, J., Sánchez , E. & Terrazas, T. 2017. Stenocereus queretaroensis (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152705A121605925. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152705A121605925.en. Downloaded on 22 January 2018.
Cactaceae	*Stenocereus quevedonis*	Pitaya, cina	LC		Yes	Terrazas, T., Cházaro, M. & Arreola, H.	Superina, M. & Goettsch, B.K.		Schipper, J.	Terrazas, T., Cházaro, M. & Arreola, H. 2017. Stenocereus quevedonis (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152016A121575364. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152016A121575364.en. Downloaded on 22 January 2018.
Cactaceae	*Stenocereus standleyi*	Pitaya, cina	LC		Yes	Arreola, H. & Terrazas, T.	Superina, M. & Goettsch, B.K.		Hilton-Taylor, C.	Arreola, H. & Terrazas, T. 2017. Stenocereus standleyi (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152938A121617635. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152938A121617635.en. Downloaded on 22 January 2018.

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Cactaceae	*Stenocereus stellatus*	Pitaya, cina	LC		Yes	Arias, S. & Zavala-Hurtado, A.	Superina, M. & Goettsch, B.K.		Goettsch, B.K.	Arias, S. & Zavala-Hurtado, A. 2017. Stenocereus stellatus (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151821A121569015. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151821A121569015.en. Downloaded on 22 January 2018.
Cactaceae	*Stenocereus thurberi*	Pitaya, cina	LC		No	Burquez Montijo, A. & Felger, R.S.	Superina, M. & Goettsch, B.K.		Gaston, K.	Burquez Montijo, A. & Felger, R.S. 2017. Stenocereus thurberi (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T151842A121569995. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T151842A121569995.en. Downloaded on 22 January 2018.
Cactaceae	*Stenocereus treleasei*	Pitaya, cina	LC		Yes	Arias, S. & Zavala-Hurtado, A.	Superina, M. & Goettsch, B.K.		Goettsch, B.K.	Arias, S. & Zavala-Hurtado, A. 2017. Stenocereus treleasei (amended version of 2013 assessment). The IUCN Red List of Threatened Species 2017: e.T152818A121611468. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T152818A121611468.en. Downloaded on 22 January 2018.
Malvaceae	*Theobroma cacao*	Cacao	NT		No	Contreras, A.	Fielder, H.			Assessment
Poaceae	*Tripsacum andersonii*	Maize	LC		No	González Ledesma, M.,Menjívar, J.,Contreras, A.	Goettsch, B.		Superina, M.,Falcao Boueres. L.	Workshop
Poaceae	*Tripsacum bravum*	Maize	VU	B1ab(iii)+2ab(iii)	Yes	González Ledesma, M.,Contreras, A.	Costich, D.E.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Tripsacum intermedium*	Maize	EN	B2ab(iii)	No	González Ledesma, M.,Contreras, A.	Kell, S.P.,Costich, D.E.		Superina, M.,Falcao Boueres. L.	Workshop
Poaceae	*Tripsacum jalapense*	Maize	LC		No	Aragón Cuevas, F.,Sánchez Cuevas, A.,Contreras, A.,Menjívar, J.,de la Cruz Larios, L.,González Ledesma, M.	Costich, D.E.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Tripsacum lanceolatum*	Maize	LC		No	Contreras, A.,González Ledesma, M.	Costich, D.E.		Falcao Boueres, L.	Workshop

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Poaceae	*Tripsacum latifolium*	Maize	LC		No	Aragón Cuevas, F.,Oliveros, O.,de la Cruz Larios, L.,Menjívar, J.,González Ledesma, M.,Contreras, A.	Costich, D.E.		Superina, M.,Falcao Boueres, L.	Workshop
Poaceae	*Tripsacum laxum*	Maize	LC		No	Menjívar, J.,Contreras, A.,González Ledesma, M.,de la Cruz Larios, L.,Aragón Cuevas, F.,Oliveros, O.	Costich, D.E.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Tripsacum maizar*	Maize	EN	B2ab(iii,v)	No	Contreras, A.,González Ledesma, M.,de la Cruz Larios, L.,Aragón Cuevas, F.	Kell, S.P.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Tripsacum manisuroides*	Maize	LC		Yes	González Ledesma, M.,Contreras, A.	Costich, D.E.		Superina, M.,Falcao Boueres, L.	Workshop
Poaceae	*Tripsacum pilosum*	Maize	LC		Yes	González Ledesma, M.,Contreras, A.	Costich, D.E.		Falcao Boueres, L.	Workshop
Poaceae	*Tripsacum zopilotense*	Maize	EN	B1ab(iii)+2ab(iii)	Yes	Contreras, A.,González Ledesma, M.	Costich, D.E.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Zea diploperennis*	Maize	EN	B1ab(iii)+2ab(iii)	Yes	Menjívar, J.,Contreras, A.,de la Cruz Larios, L.,Ruíz Corral, J.A.,Aragón Cuevas, F.,González Ledesma, M.,Sánchez , J.	Kell, S.P.,Goettsch, B.		Falcao Boueres, L.,Oliveros, O.,Superina, M.	Workshop
Poaceae	*Zea luxurians*	Maize	VU	B2ab(i,ii,iii,v)	No	Azurdia, C.,González Ledesma, M.,Contreras, A.,Ruíz Corral, J.A.,Aragón Cuevas, F.,Sánchez , J.,Menjívar, J.,de la Cruz Larios, L.	Kell, S.P.		Oliveros, O.,Superina, M.,Falcao Boueres, L.	Workshop
Poaceae	*Zea mays* subsp. *mexicana* Chalco subpopulation	Maize	LC		Yes	Contreras, A.,de la Cruz Larios, L.,Aragón Cuevas, F.,Ruíz Corral, J.A.,Sánchez , J.	Kell, S.P.		Superina, M.,Falcao Boueres, L.,Oliveros, O.	Workshop
Poaceae	*Zea mays* subsp. *mexicana* Durango subpopulation	Maize	EN	B1ab(iii,v)+2ab(iii,v)	Yes	Oliveros, O.,Contreras, A.,Ruíz Corral, J.A.,de la Cruz Larios, L.	Kell, S.P.		Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Zea mays* subsp. *mexicana* Mesa-Central subpopulation	Maize	LC		Yes	Ruíz Corral, J.A.,de la Cruz Larios, L.,Oliveros, O.,Aragón Cuevas, F.,Contreras, A.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop

Supplementary Table 5.1. Threat status of priority Mexican CWR included in the inventory based on the IUCN Red List assessment criteria (continued)

Family	Full_name	Crop	Category	Criteria	Endemic to Mexico	Assessors	Evaluators	Contributors	Facilitators	Source
Poaceae	*Zea mays* subsp. *mexicana* Nobogame subpopulation	Maize	CR	B1ab(iii)	Yes	de la Cruz Larios, L.,González Ledesma, M.,Oliveros, O.,Ruíz Corral, J.A.,Aragón Cuevas, F.,Contreras, A.	Kell, S.P.		Superina, M.,Falcao Boueres, L.	Workshop
Poaceae	*Zea mays* subsp. *parviglumis*	Maize	LC		Yes	Contreras, A.,González Ledesma, M.,Aragón Cuevas, F.,Ruíz Corral, J.A.,de la Cruz Larios, L.	Kell, S.P.		Flores, D.,Falcao Boueres, L.,Superina, M.	Workshop
Poaceae	*Zea perennis*	Maize	EN	B1ab(iii,v)+2ab(iii,v)	Yes	Contreras, A.,Sánchez , J.,Ruíz Corral, J.A.,de la Cruz Larios, L.	Kell, S.P.		Falcao Boueres, L.,Superina, M.	Workshop

Supplementary Table 6.1. Accessions of maize and common bean wild relatives occurring in areas with aridity index of Lang (AI_L) of <40 in Mexico that were identified as potential drought tolerant, and values of mean annual temperature (°C) and mean annual precipitation (mm)

Accession number	Institute	Crop	Crop taxon	CWR taxon	Location	Temperature (°C)	Precipitation (mm)	Aridity index	Source
G35454	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus coccineus*	Puebla	21	426	20	a
G40085	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *tenuifolius*	Durango	20	387	19	a
G40089	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	20	373	18	a
G40108	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	20	371	18	a
G40112	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Durango	20	374	18	a
G40116	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	66	3	a
G40142	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	20	333	16	a
G40143	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	20	321	16	a
G40144	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	20	351	17	a
G40145	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	414	18	a
G40147	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	459	20	a
G40148	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	366	16	a
G40149	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	379	17	a
G40150	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	430	19	a
G40151	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	21	457	21	a
G40206	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	20	338	16	a
G40238	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Coahuila	21	180	8	a
G40242	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Durango	21	317	15	a
G40275	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	16	318	19	a
G40276	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	19	398	20	a
G40287	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	22	344	15	a
G40288	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	23	470	20	a
G40289	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	25	423	16	a
G40686	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	BCS	21	390	18	a
G40687	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Sonora	22	116	5	a
G40690	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Coahuila	21	235	11	a
G40699	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	BCS	23	284	12	a
G40700	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	BCS	23	267	11	a
G40701	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Baja California	20	106	5	a
G40702	CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Sonora	24	200	8	a
10009	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	BCS	21	115	5	b
10033	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	21	353	16	b
10035	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	20	366	18	b
10041	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Baja California	22	125	5	b
10042	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	21	258	12	b
10050	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	BCS	24	132	5	b
10051	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	20	374	18	b
10062	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	19	302	15	b
10073	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	16	323	20	b
10605	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Durango	21	258	12	b
11949	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Durango	19	355	18	b
12001	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	20	339	16	b
12002	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	20	351	17	b
12005	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	22	417	18	b
12008	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	22	457	20	b

Supplementary Table 6.1. Accessions of maize and common bean wild relatives occurring in areas with aridity index of Lang (AI_L) of <40 in Mexico that were identified as potential drought tolerant, and values of mean annual temperature (°C) and mean annual precipitation (mm) (continued)

Accession number	Institute	Crop	Crop taxon	CWR taxon	Location	Temperature (°C)	Precipitation (mm)	Aridity index	Source
12009	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	22	366	16	b
12014	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	22	415	18	b
12025	INIFAP-CG	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	21	104	4	b
PI 535216	USDA, NPGS	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	BCS	22	180	8	c
PI 535216	USDA, NPGS	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	BCS	22	180	8	c
PI 632353	USDA, NPGS	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Durango	21	255	12	c
PI 638837	USDA, NPGS	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Chihuahua	20	296	14	c
PI 263590, G40045	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sonora	23	480	20	d
PI 319438, G40049	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Sonora	25	388	15	d
PI 319445, G40055	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius* var. *acutifolius*	Sinaloa	24	404	16	d
PI 535200, G40086	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	Durango	20	366	18	d
PI 535216, G40274	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus acutifolius*	BCS	22	154	7	d
PI 535293, G40507	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Baja California	24	127	5	d
PI 535297, G40549	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	BCS	23	405	17	d
PI 535307, G40662	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus filiformis*	Sonora	20	79	3	d
PI 653247, G40675	USDA, NPGS, CIAT	Common bean	*Phaseolus vulgaris* L. var. *vulgaris*	*Phaseolus carteri*	BCS	23	273	11	d
8760	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	976	36	e
11392	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	628	36	e
27463	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	28	861	30	e
27464	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	28	833	29	e
27530	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	24	702	29	e
27545	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Nayarit	23	839	36	e
27546	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	24	855	35	e
27549	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	776	35	e
27550	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	829	37	e
13791	CIMMYT	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Puebla	15	548	36	e
K-84-2	CP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Nayarit	24	853	35	f
JSG-187	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	1010	37	g
JSG-190	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	974	36	f
JSG-205	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	739	35	f
JSG-435	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Puebla	15	545	36	f
JSG-JMHC-625	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Puebla	15	553	36	f
JSG-JMHC-626	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Puebla	15	548	36	f
JSG-JRP-ERG-543	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Nayarit	24	871	36	g
JSG-LOS-123	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	28	941	33	g
JSG-LOS-44	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	23	850	36	g
JSG-LOS-55	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Guanajuato	20	752	37	f
JSG-LOS-86	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	628	36	f
JSG-LOS-88	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	18	646	35	g
JSG-MAS-264	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Nayarit	24	863	35	g
JSG-RMM-428	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	623	36	f
RMM-216	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	805	36	f
RMM-217	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	758	36	f
RMM-218	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	739	35	f
RMM-236	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	740	35	f

Supplementary Table 6.1. Accessions of maize and common bean wild relatives occurring in areas with aridity index of Lang (AI_L) of <40 in Mexico that were identified as potential drought tolerant, and values of mean annual temperature (°C) and mean annual precipitation (mm) (continued)

Accession number	Institute	Crop	Crop taxon	CWR taxon	Location	Temperature (°C)	Precipitation (mm)	Aridity index	Source
RMM-3	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	23	845	36	f
RMM-FJSM-201	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	806	36	f
RMM-FJSM-211	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	776	35	f
RMM-FJSM-212	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	739	35	f
VAVM-T-03	INIFAP	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Nayarit	24	849	35	f
DMA-2008-1	UAEM	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Morelos	23	839	36	f
JACV-T-054	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	26	961	36	f
JACV-T-055	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	983	36	f
JACV-T-056	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	994	36	f
JACV-T-057	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	25	884	35	f
JACV-T-069	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Michoacán	18	682	37	f
JACV-T-074	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	28	928	33	f
JACV-T-075	UACH	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	27	964	35	f
JSG-RMM-LCL-514	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Michoacán	26	961	36	f
JSG-SRV-EAM-705	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	502	29	f
JSG-SRV-EAM-708	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	506	29	f
JSG-SRV-EAM-710	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *mexicana*	Durango	17	628	36	f
RMM-2	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	819	37	f
RMM-228	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	22	826	37	f
RMM-5	UdeG	Maize	*Zea mays* L. subsp. *mays*	*Zea mays* subsp. *parviglumis*	Jalisco	21	740	35	f

BCS: Baja California Sur
CIAT: International Center for Tropical Agriculture
CIMMYT: International Maize and Wheat Improvement Center
CP: Colegio de Postgraduados
INIFAP: National Institute of Forestry, Agricultural and Livestock Research
INIFAP-CG: National Institute of Forestry, Agricultural and Livestock Research- Germplasm Collection
UACH: Universidad Autónoma Chapingo
UAEM: Universidad Autónoma del Estado de Morelos
UdeG: Universidad de Guadalajara
USDA, NPGS: U.S. National Plant Germplasm System

Sources

a	http://genebank.ciat.cgiar.org/genebank/beancollection.do
b	http://www.snib.mx/iptconabio/resource?r=SNIB-P047-P047703F-ND
c	https://npgsweb.ars-grin.gov/gringlobal/search.aspx
d	https://npgsweb.ars-grin.gov/gringlobal/search.aspx, http://genebank.ciat.cgiar.org/genebank/beancollection.do
e	http://mgb.cimmyt.org/gringlobal/search.aspx
f	http://www.biodiversidad.gob.mx/genes/monitoreo_teocintles.html
g	http://www.biodiversidad.gob.mx/genes/proyectoMaices.html