ABS-00032

Discovering new species in Mexico: the role of botanical gardens

C.D. Sánchez-Sánchez[1,2,*], J.A. Reyes-García[1,2], R.B. Price[1,2], and P. Velázquez-Ríos[2,3]

[1]Vallarta Botanical Garden, Puerto Vallarta, Jalisco, Mexico
[2]Botanical Society of Mexico, Mexico City, Mexico
[3]Independent researcher, Guadalajara, Jalisco, Mexico

[*]Corresponding author email: botanica@vbgardens.org

Keywords: *ex situ* conservation, global hotspot, Mesoamerica, plant exploration, risk assessment, taxonomy

Mexico is among the five countries with the highest number of plant species in the world and its exploration is far from over, since around 100 new species of plants are published every year. The taxonomic novelties of vascular plants found in Mexico published in the last five years were listed as part of the science communication activity for the Botanical Society of Mexico from the Vallarta Botanical Garden. We documented 640 species of 261 genera and 100 families. 75% of the species evaluated are suggested to be in some extinction risk category of the International Union for Conservation of Nature. The work of classifying these plants was carried out by around 500 taxonomists and half of all the discoveries have been published by researchers associated with botanical gardens, most of them from Mexico. Such is the case of the most recent findings around the Vallarta Botanical Garden, that are presented in detail as a case study. The taxonomic work carried out in botanical gardens, from botanical expeditions, work with herbaria and *in situ* and *ex situ* research, is fundamental for conservation action. The participation of the Mexican, Latin American and Caribbean Associations of Botanical Gardens, as well as international networks of Arboretums and botanical gardens, such as ArbNet and the Global Conservation Consortia of the Botanic Gardens Conservation International, are essential to coordinate and accelerate the evaluation of these new species, since the only technical and legal justification to request immediate protection of these species is their inclusion on conservation lists, in the face of threats of habitat destruction and climate change.