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Regional and global conservation assessments for 200 vascular plant species from Costa Rica and Panama

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Abstract

We present 200 species conservation assessments covering Costa Rica and Panama. Fifty-two of these represent global conservation assessments and 148 regional conservation assessments. Species were selected on the basis that they were present in the La Amistad Biosphere Reserve and deemed to be Keystone species for the reserve. We include basic taxonomic information, local names, uses, maps of the Extension of Occurrence and Area of Occupancy together with a discussion of the threats for each of the species assessed.

Key words: Extent of Occurrence, Area of Occupancy, IUCN Criteria 3.1, keystone species, La Amistad Biosphere Reserve, UNESCO World Heritage Site

Introduction

As part of a Darwin Initiative funded collaboration between the Instituto Nacional de Biodiversidad, Costa Rica (INBio), Universidad de Panamá (PMA), Autoridad Nacional del Ambiente, Panama (ANAM), Sistema Nacional de Áreas de Conservación de Costa Rica (SINAC) and The Natural History Museum, London (BM) (Darwin Initiative Project 15-027) species conservation assessments were undertaken for two hundred species designated as 'Keystone' for the La Amistad Biosphere Reserve (LABR). Regional assessments were undertaken for Costa Rica and Panama according to criteria established by the IUCN (IUCN 2001, version 3.1). The justification for targeting LABR is that the Biosphere Reserve is a UNESCO Worlde Heritage Site and currently the focus of the development of a binational management plan by ANAM in Panama and SINAC in Costa Rica. In addition UNESCO report (UNESCO World Heritage Centre; IUCN 2010) a number of active threats to LABR and the property may be designated a 'Park in Peril' in the near future. The aim of these assessments is to inform and contribute to the decision-making process underpinning the management of La Amistad Binational Park and Biosphere Reserve.

LABR comprises 650,000 ha of continuous natural vegetation that represents some of the most biodiversity-rich landscape in the World (N.A. Brummitt, pers. comm.) and an important component of the Gran Cordillera de Talamanca peoples' indigenous territory (Borge 2004). LABR forms the eastern 50% of the Talamanca mountain range connecting the Pacific and Caribbean coasts of Costa Rica and Panama, LABR indigenous territories and 7 protected areas in Costa Rica and Panama, the biggest of which is La Amistad Binational Park. The Park is split between Costa Rica and Panama and 3/4 is of Caribbean drainage. At regional level LABR represents the core of the third largest biosphere reserve in Central America. The highest points within LABR are Cerro Chirripó in Costa Rica (3,819 m) and Cerro Fábrega in Panama (3,335 m). Whilst a full floristic inventory of LABR does not exist, a checklist of La Amistad Binational Park (Monro *et al.* in press) records 3,089 species, 481 of which are monilophytes and 2,610 seed plants.

A Keystone plant is here defined as a species that has a disproportionate effect on its environment relative to its proportion of the diversity in a habitat. This would be considered outside of the normal realm of