IUCN SSC Madagascar Plant Specialist Group



2020 Report



Mijoro Rakotoarinivo

Chair

Mijoro Rakotoarinivo (1)

Vice-Chair

Harison Rabarison (1)

Red List Authority Coordinator

Sylvie Andriambololonera (2)

Location/Affiliation

(1) Plant Biology and Ecology Department, Faculty of Sciences, University of Antananarivo, Madagascar

(2) Missouri Botanical Garden Representation, Antananarivo, Madagascar

Number of members

66

Mission statement

The mission of the Madagascar Plant Specialist Group (MPSG) is to increase the knowledge on Madagascar plant diversity (flora and habitats) by assessing and/or reviewing their conservation status (especially for IUCN and CITES) and promote their conservation by identifying conservation priorities, giving recommendations for their survival, and reinforcing people's efforts toward the conservation of plant diversity.

Projected impact for the 2017-2020 quadrennium

By the end of 2020, we envision that we will complete the assessment of 3,500 Madagascar plant species, which represents one of the targets of the Barometer of Life. By achieving that goal, we hope to increase our knowledge of the Key Biodiversity Areas (KBAs) of our country. Through the implementation of conservation programmes developed by ourselves and in collaboration with our partners, we hope to bring to local communities the capacity to restore threatened crop wild relative species and patrimonial species through setting up of nurseries, in situ and ex situ conservation activities and developing management plans for natural resources. We also plan to generate more knowledge for Data Deficient species by conducting research on lost species that have not been collected for more than 50 years. Since the MPSG is also part of the CITES scientific authority of Madagascar, the assessments that have already been done or will be done during the 2017-2020 quadrennium, especially those on orchids, succulents and timber wood (palissander, rosewood and ebony), will contribute to reinforce implementation of CITES' rules.

Targets for the 2017-2020 quadrennium

Assess

Red List: (1) reassess and review assessment of a total of ca. 1,700 Madagascar plant species; (2) review assessment of a total of ca. 350 endemic species belonging to different taxonomic groups or belonging to specific habitats; (3) assess and review assessments of ca. 2,000 Madagascar trees; (4) start a national Red List for plants.

Research activities: conduct research on lost species from Madagascar.

Plan

Planning: (1) elaborate a conservation strategy for threatened wild yams and the most used yams from Madagascar; (2) elaborate a national strategy for plant conservation in Madagascar.

Act

Conservation actions: integrate traditional knowledge and conservation and restoration of patrimonial plant species in Vohibola forest (a KBA).

Network

Capacity building: (1) workshop on the integration of Knowledge Products mobilised by IUCN through the Integrated Biodiversity Assessment Tool (IBAT) to support decision making; (2) start a national Red List for plants.

Activities and results 2020

Assess

Red List

i. The reassessments and review of assessments of 1,328 endemic plant species of Madagascar were published in 2020; of these, 114 species are not trees (height lower than 2 m), belonging to miscellaneous plant families such as Aponogetonaceae,







Screen capture of orchids assessed during virtual workshop in 2020 Photo: Simon Verlynde & Patrice Antilahimena

> Woods harvesting, one of the major threats on the loss of forest biodiversity in Madagascar Photo: Mijoro Rakotoarinivo



Araliaceae, Asphodelaceae (88 Aloe spp.) and Euphorbiaceae. In addition to the efforts made to assess the extinction risk of the Malagasy plants, the IUCN SSC MPSG has collaborated with the Orchid Specialist Group to assess the extinction risk of the species threatened by the Ambatovy mining project in the central highlands of Madagascar. So far, assessments of 39 species were successfully reviewed in July 2020 during a virtual meeting, involving researchers from different countries such as Madagascar, France, Cameroon and the US. Data for these species will be published on the IUCN Red List website in March 2021. (KSR #2)

ii. Under the project 'Assessing the Status of Madagascar's Trees for the Effective Conservation of Key Biodiversity Areas and Protected Areas', a collaboration between Botanic Garden Conservation International (BGCI) and the IUCN SSC Madagascar Plant Specialist Group, the extinction risk of 1,218 endemic tree species of Madagascar was assessed and published on the IUCN Red List website in 2020. Of these, 853 species were assessed as threatened (248 Vulnerable, 448 Endangered, 157 Critically Endangered) and 34 Data Deficient. These assessments were undertaken by Red List assessors from the Missouri Botanical Garden Madagascar Programme and Kew Madagascar Conservation Centre. Reviews of the assessments were made during one virtual workshop, organised in August 2020 with the participation of about 20 botanists, members of the IUCN SSC MPSG. (KSR #1, 2, 22, 35)

Plan

Planning

i. A document for a national conservation strategy is being prepared for promoting specific actions in order to preserve native plants of Madagascar from extinction. The project aims to document required actions for halting the continuing loss of plant diversity in Madagascar. In accordance with the National Strategic Plan for Biodiversity and the quadrennial strategy of MPSG, the aim of the project is to develop a strategic plan that will consolidate past and existing efforts towards the conservation of the flora of Madagascar and guide different conservation actions. Species data for assessed Madagascar plants is published on the IUCN Red List. (KSR #7, 12, 28, 35)

ii. A conservation strategy for the palms (Arecaceae) of Madagascar was developed and published in 2020 with the programme 'Sud Expert Plantes Développement Durable (SEP2D)', in collaboration with researchers from University of Antananarivo, Parc Botanique et Zoologique de Tsimbazaza (PBZT), Arboretum de Ranomafana, Missouri Botanical Gardens, Royal Botanic Gardens, Kew, the Institut de Recherche pour le Développement and some staff from the Ministry of the Environment. The document describes the current conservation status of the palms of Madagascar and suggests adequate conservation measures to be prioritised at different levels and with all involved stakeholders. Published in both French and English, the document was shared among conservation institutes and protected areas managers across Madagascar. The document is also available online for reading and downloading on the ResearchGate pages of the various authors. Within the framework of the Global Tree Assessment lead by BGCI, some tree species' conservation plans were developed for several targeted KBA species: they are seven in number encompassed in eight KBAs. (KSR #7, 12, 28, 35)

iii. Elaboration of the conservation strategy for threatened wild yams and the most widely used yams from Madagascar was achieved. (KSR #15)

Network

Capacity building

i. As a part of the project 'Assessing the Status of Madagascar's Trees for the Effective Conservation of Key Biodiversity Areas and Protected Areas', a collaboration between Botanic Garden Conservation International (BGCI) and the IUCN SSC Madagascar Plant Specialist Group, all data for each tree species published on the IUCN Red List website were assembled and compiled to be published in a single book, *The Red List of Trees of Madagascar*, to be launched in 2021. (KSR #8, 43)

Acknowledgements

We thank Botanic Gardens Conservation International (BGCI) and the Critical Ecosystem Partnership Fund (CEPF) for their support in funding the project for assessment of trees from KBAs in western Madagascar, the training workshop and the review workshop for the trees from western KBAs, and National Geographic Sciences for the Orchid extinction risk assessments. We also want to thank Sarah Oldfield from the Global Tree Specialist Group, and Emily Beech from BGCI who provided Red List training and assistance during the Western KBAs trees project. Completing the different activities was possible with the funding from the Sud Expert Plantes Développement Durable and Planta Life.

Summary of activities 2020

Components of Species Conservation Cycle: 3/5

Assess 2 | Plan 3 | Network 1 |

Main KSRs addressed: 1, 2, 7, 8, 12, 15, 22, 28, 35, 43