

# IUCN SSC Mascarene Islands Plant Specialist Group

2019 Report



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## Co-Chairs

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## Number of members

40

## Social networks

Website: [www.foretseche.re](http://www.foretseche.re)  
[www.mauritian-wildlife.org](http://www.mauritian-wildlife.org)



## Mission statement

To conserve native plants of the Mascarene Islands.

## Projected impact for the 2017-2020 quadrennium

By the end of 2020, we hope to significantly advance towards finalisation of the national Red List of endemic plants of Mauritius and Rodrigues. We also hope to establish or reinforce collaboration with a number of international conservation organisations, and take actions significantly improving the conservation of at least 10 endemic plant species. We expect to keep a fully up-to-date database of all plants present in La Réunion in order to deliver regular Red List reassessments of the entire Réunion Flora to guide our conservation actions. We envision producing factsheets on techniques for how to grow each rare plant species from La Réunion and publishing several conservation action plans for our most threatened endemic plant species. We also expect to prevent the complete loss of a patrimony and a unique biodiversity in the world: La Réunion dry forest. And, last but not least, we hope to increase knowledge and information exchange between researchers and conservationists on the ground to ultimately improve the conservation of rare plant species from La Réunion.

## Targets for the 2017-2020 quadrennium

### Assess

Red List: complete the assessment of 200 endemic plants from Mauritius and Rodrigues.  
Research activities: (1) update on a regular basis the database of all plants present in La Réunion, including rare plant species; (2) develop new knowledge to improve the conservation of rare plant species from La Réunion (both research and grey literature).

### Plan

Planning: publish emergency action plans for Extinct in the Wild plant species (22 species) and national or local action plans for rare plant species (39 species).

### Act

Conservation actions: (1) conserve *in situ* and/or *ex situ* 50 Critically Endangered plant species from Mauritius and Rodrigues; (2) contribute to the successful implementation of the project ESPECE (Études et Sauvegarde des Plantes En danger Critique d'Extinction; [www.reunion-parcnational.fr/](http://www.reunion-parcnational.fr/)); (3) contribute to the successful implementation of the project LIFE+ forêt sèche, which aims to prevent the complete loss of a patrimony and a unique biodiversity in the world: La Réunion dry forest (general information at <https://www.foretseche.re/en/>).

### Network

Capacity building: conduct training courses in plant conservation.  
Synergy: develop or reinforce collaboration with at least three international conservation organisations.

### Communicate

Technical advice: publish factsheets on techniques for how to grow each rare plant species from La Réunion.



Miraculous recovery of *Elaeocarpus bojeri*, bois dentelle, Critically Endangered, at Grand Bassin peak  
Photo: Vikash Tatayah, MWF

## Activities and results 2019

### Assess

#### Red List

i. Over 50 Rodrigues species, including 33 trees, were pre-assessed (33 species were entered into the IUCN SIS database); draft Species Action Plans for five Rodrigues species were initiated. Funding for the Rodrigues assessment was obtained from Botanic Gardens Conservation International's Global Trees Campaign (Franklinia funding). Training and workshops were conducted in both Mauritius and Rodrigues. IUCN SIS data entry for ca. 260 Mauritian species and 16 Rodrigues species is still pending, with the constraints being the time consumption of entry into the IUCN SIS database and data entry staff shortages. (KSR #1, 2, 32)

#### Research activities

i. Five scientific papers have been published in 2019 to improve the conservation of rare plant species from la Réunion: Albert et al. (conference paper, *Island Biology*) confirm the fundamental role of seed dispersal loss in ecosystem stable-state shifts and the urgency to restore it through large frugivore rewilding actions; Bytebier, B. and Pailler, T. (*Phytotaxa*) demonstrate a new combination in *Cynorkis* (Orchidaceae, Orchidoideae) for the Mascarenes; Pailler et al. (*Phytotaxa*) describe a new *Disperis* (Orchidaceae) for the flora of the Mascarenes; Lerperlier et al. (*Global Ecology and Conservation*) describe germination barriers in four native Malvaceae shrub species of Reunion island to improve restoration in arid habitats; Baret et al. (*Cahiers scientifiques de l'océan Indien occidental*) highlight the importance that forestry



Collection of propagules of *Polyscias repanda* with the NGO (Amis des Plantes et de la Nature), the municipality of Sainte-Rose, Ti Mahot nursery and the national park of La Réunion) in order to supply a project of indigenous plantation within the Sainte-Rose municipality  
Photo: Stéphane Baret



Presentation by Vikash Tatayah  
Photo: Mascarene Island SG



Group work  
Photo: Mascarene Island SG



One of the few truly wild individuals of  
Critically Endangered *Zanthoxylum heterophyllum*  
on a private land at Trou d'Eau Douce, east Mauritius  
Photo: Phil Lambdon, Durrell / MWF

plantations act as a buffer and not as a pathway for invasive alien plants in the national Park at Réunion island, recommend strengthening early detection and rapid response of alien plants, and suggest alternative management approaches in forestry plantations, including the use of community-based restoration programmes. (KSR #32)

## Plan

### Planning

**i.** Three thematic action plans have been developed, according to homogenous themes: species from littoral *Euphorbia* genus (three species), species from dry areas (~20 species), and very threatened plant species (~10 species). (KSR #15)

## Act

### Conservation actions

**i.** The National Parks and Conservation Service has set up a 5.5 ha arboretum in Curepipe, Mauritius, where over 150 endemic plants of Mauritius are preserved. Over half would be Critically Endangered species. In addition, over 20 putative Critically Endangered species are conserved on Rodrigues. However, on both islands, especially on Mauritius, continuous habitat degradation and loss continues to seriously threaten endemic plants. (KSR #29)

**ii.** A total of 1,450 individuals of 20 rare, protected plants have been produced and are present in nursery. They will be planted in 2020 within 14 different sites around the island (~5 ha in total). Knowledge of 100 rare plant species (Critically Endangered, Endangered) has been updated and 200 wild individuals have been marked in the field in order to facilitate monitoring over time. In parallel, field restoration has been done around 20 mature

individuals of seven plant species *in situ*, and the future site plantations have been identified and alien control has been initiated for some. (KSR #25, 27)

**iii.** Eighteen ha of relictual natural habitats have been restored; 7.5 ha of forest have been planted (rehabilitation of very degraded forest but in order to connect fragmented habitats). For that, 7,700 plants of 13 rare, protected species have been planted with around 20,000 other indigenous plants. The project will be finished in 2020. (KSR #31)

## Network

### Capacity building

**i.** Several Brest Botanical Garden (France) training sessions have been provided on Mauritius and Rodrigues and online for database for Mauritian Wildlife Foundation, Forestry Service, National Parks and Conservation Service, and private sector actors. In Rodrigues, training was also provided to Mauritian Wildlife Foundation staff by Brest Botanical Garden in the setting up of an 'ancient seeds' project in alluvial deposits. (KSR #17)

### Synergy

**i.** Partnerships were established or reinforced with Brest Botanical Gardens (France), Missouri Botanical Gardens (US) and Botanic Gardens Conservation International, and links made with a few others (e.g. Leon Levy Native Plant Preserve, Bahamas). (KSR #29)

## Communicate

### Technical advice

**i.** About 10 factsheets on indigenous plants have been done (half are rare plants). As it is important to include rare plant species inside a most preserved ecosystem, it is also important to develop factsheets for common indigenous plants in order to restore the habitat well. (KSR #18)

## Acknowledgements

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## Summary of activities 2019

Components of Species Conservation Cycle: 5/5

Assess	2	
Plan	1	
Act	3	
Network	2	
Communicate	1	

Main KSRs addressed: 1, 2, 15, 17, 18, 25, 27, 29, 31, 32

KSR: Key Species Result