

# IUCN SSC Plant Conservation Committee



## 2019 Report



John Donaldson



Domitilla Raimondo

### Co-Chairs

John Donaldson  
Domitilla Raimondo

### Location/Affiliation

South African National Biodiversity Institute (SANBI), South Africa

### Number of members

15

### Mission statement

The IUCN SSC Plant Conservation Committee (PCC) leads IUCN's efforts in stemming the loss of global plant diversity through its wide-ranging network of plant conservationists. The PCC is responsible for advising and assisting on the overall prioritisation and programme oversight within the SSC to deliver on its plant conservation responsibilities. The PCC works to support and facilitate the activities of the SSC Chair, the IUCN Global Species Programme, and the expert volunteer network of Specialist Groups, Red List Authorities, Task Forces and others, providing overall strategic guidance and direction in accordance with the mandate of the SSC.

### Projected impact for the 2017-2020 quadrennium

The Plant Conservation Committee aims to achieve the following outputs by 2020:

- (1) barometer of life targets achieved for plants (38,000 plants included on the IUCN Red List);
- (2) guidelines on including plant diversity in action plans and sector based plans developed;
- (3) *ex situ* conservation of plants promoted by involving botanic gardens in conservation and support of IUCN SSC groups;
- (4) each IUCN SSC Specialist Group has a sustainable use focus;
- (5) quantifiable targets related to plant diversity incorporated into the post-2020 global biodiversity framework.

### Targets for the 2017-2020 quadrennium

#### Assess

Green List: test the Green List for Cycads, Kew Caribbean plants, Cacti, and sample Global Tree Campaign Species.

Red List: (1) manage and drive assessments forward in 13 megadiverse countries (US, Mexico, Colombia, Brazil, Ecuador, Peru, South

Africa, Ethiopia, Madagascar, India, Indonesia, China, Australia); (2) champion Red List assessment of CITES-listed plants (those affected by trade, not look-alike): identify the gaps, encourage Specialist Groups to prioritise assessments; (3) assess conservation status of species important to livelihoods (Plants for People/P4P species prioritised) in order to support conservation action, such as species conservation action plans, national strategies, etc.; (4) develop a system for automating Least Concern assessments for plants, that includes: (i) clearly defined thresholds for what qualifies as Least Concern, e.g. minimum extent of occurrence (EOO) and number of countries, (ii) determine how habitat information can be automatically brought in and test different spatial ecosystem classification systems, e.g. ecosystem assessment for South America, WWF ecoregions, etc., (iii) determine what land cover layers are best used to determine level of habitat loss, (iv) determine thresholds of habitat loss that mean a species cannot qualify as Least Concern; (5) prioritise Crop Wild Relative (CWR) assessments in hotspots, e.g. Indonesia (underway with Crop Wild Relative Specialist Group; Global Trees to build it in through David Gill), investigate working on Crop Wild Relatives in Brazil with the Brazilian Agricultural Research Corporation (EMBRAPA) and in Ethiopia; (6) develop an information system to automate Least Concern assessments that is compatible with SIS Connect; (7) develop a protocol for producing semi-automated Least Concern assessments approved and signed off by the Red List Committee; (8) determine timelines for production of Least Concern assessments and determine feasibility of conducting global plant assessments.



Plant leaders at the SSC Leaders' Meeting 2019,  
Abu Dhabi, UAE  
Photo: D. Raimondo

## Plan

**Policy:** (1) produce a policy brief on Crop Wild Relatives (CWR) and their role in adaptation to climate change, and consider turning this into a resolution for the IUCN World Conservation Congress (WCC); (2) champion/support piloting of the FairWild Standard and certification for high risk CITES-listed species, and summarise the case study at the relevant CITES events (in particular as relevant to livelihoods and incentives agenda items); (3) develop the next iteration of the Global Strategy for Plant Conservation that incorporates the views and aspirations of the entire plant conservation community (not just the *ex situ* community), develop better indicators for the post-2020 global biodiversity targets, and develop tools and data services for conservation practitioners and policymakers, including Convention on Biological Diversity (CBD) national focal points.

**Research activities:** (1) hotspot regions (Indonesia, Brazil, South Africa, Madagascar, Colombia) to list Alliance for Zero Extinction (AZE) sites for plants (once on the Red List); (2) hotspot regions (Indonesia, Brazil, South Africa, Madagascar, Colombia) where possible to identify Key Biodiversity Areas (KBAs) for plants (once on the Red List).

## Act

**Conservation actions:** (1) ensure that use and trade of plants is reflected in the work of Specialist Groups as/when appropriate, including to request plant Specialist Groups integrate species use and trade in their work, in particular for the new Specialist Groups; (2) champion the use of the Plant Sustainable Use guidelines by expanding the use of the FairWild Standard and its certification scheme as a recognised international best practice for sustainable harvest and trade in wild plants.

## Network

**Capacity building:** (1) support Specialist Groups to achieve the assessments committed to in the IUCN Species Strategic Plan, through having one-on-one skype calls with each group and emailing them to encourage progress; encourage them to submit in new languages allowed on the Red List; provide training and reviews of assessments where needed; (2) encourage students to conduct assessments at selected universities where a champion lecturer is able to both teach assessment methodology and review assessments produced.

**Synergy:** (1) map where we have Specialist Groups and if they have links to Botanical Gardens, and post survey of groups; (2) produce case studies on good relationships between Botanic Gardens and Specialist Groups (that include both examples of re-introductions and *ex situ* work); (3) at least two new formal partnerships in place by next meeting; (4) facilitate the identification and engagement of plant Specialist Groups, designate CITES focal points with IUCN Global Species Programme (GSP) and SSC and work together to: (i) review plant Specialist Group engagement with CITES in 2017–18 and report back to PCC, (ii) make Specialist Groups aware of the usefulness of the application of the CITES Non-detriment Findings Guidance for Perennial Plants (the nine-steps methodology) for relevant taxa, (iii) identify how to flag priority issues to the Specialist Groups prior to particular CITES events, (iv) identify Specialist Group members who are involved with wildlife trade discussions and ask how to best support them in strengthening the arguments for plant trade in the international

wildlife trade discussions, (v) encourage plant Specialist Groups to contribute to the CITES and livelihoods item, including responding to the current call for case studies on CITES and livelihoods, and also the CITES Rural communities process. Specifically, some of the potential case studies include: Palms; Medicinal plants; FairWild; Madagascar CITES species (ornamental); Central African ebonies—Taylor guitars (check with George Schatz).

## Activities and results 2019

### Assess

#### Green List

**i.** Little progress has been made on testing the Green List for plants due to limited time and funding availability. (KSR #11)

#### Red List

**i.** Active Red Listing work is taking place in South Africa, Madagascar, Colombia, Brazil, Indonesia, China and the US. During this quadrennium, South Africa has assessed 2,900 plants for National Red Listing work, of which 1,000 species will be submitted to IUCN before the end of 2020. A total of 2,293 plant species were published for Madagascar between 2016 and 2019. A further 1,649 were published for Indonesia, 2,585 for Brazil, 2,244 for Colombia, 2,268 for Mexico, 1,604 for China and 1,551 for the US. (KSR #1)

**ii.** Kew has developed a 'Rapid Least Concern' tool to automate the generation of required data for Least Concern assessments. User can do an assessment, one at a time or run batches of species. See: <https://spbachman.shinyapps.io/rapidLC/>. (KSR #1)

**iii.** The Kew Rapid Least Concern tool has been used to generate assessments which have been sent to the IUCN Red List and have been published. Furthermore, over 10,000 Least



Critically Endangered *Encephalartos latifrons*  
Photo: Michael Calonje



Concern assessments have been rapidly generated for the Global Tree Assessment and have been successfully published on the IUCN Red List. (KSR #1)

**iv.** The process for automating Least Concern Assessments has been checked by the Red List Committee's Technical Working Group and a protocol has been developed for the Red List Committee for their endorsement and use for other taxonomic groups. (KSR #6)

**v.** The number of plants on the IUCN Red List has more than doubled with 20,797 added since 2016, bringing the total number of assessments to 40,468 by the end of 2019 and ensuring the plant target for the Barometer of Life of 38,000 plants has been met. Despite this significant increase in the rate of plant assessments, a global assessment of over 360,000 taxa will not be feasible in the next decade. Instead, an assessment of all the World's Trees (ca. 60,000 species) is underway and a global assessment of the Legume family (ca. 28,000 species) is currently being considered. (KSR #1)

**vi.** Assessment of Crop Wild Relatives has been prioritised, in hotspots where these species are concentrated, and includes assessments of species in the Mesoamericas; in Madagascar all Yams (*Dioscorea* and *Tacca*) species have been assessed; Indonesia has conducted assessments of Crop Wild Relative tree species; while Kew has funded a Wallacea Project, which will include Red List assessments for Crop Wild Relatives of the Lesser Sunda Islands. (KSR #1)

**vii.** Members of the Plant Conservation Committee have championed conducting Red List assessment of the CITES-listed plants. For example, Brazil assessed the risk of extinction of 96 species that are cited in Appendix II of

CITES. The 96 species consist of four *Dalbergia* species (Fabaceae), eight Cactaceae species, and 84 Orchidaceae species. South Africa has completed an assessment of succulent species threatened by international trade and has selected a number of these species for inclusion on CITES appendices. (KSR #1)

**viii.** A project on Mesoamerican Crop Wild Relatives (CWR), financed by the Darwin Initiative, has been ongoing since the last semester of 2016 and was completed in 2019. The efforts have been led by IUCN, with the coordination of the University of Birmingham and CONABIO in Mexico, and with the participation of Mexico, El Salvador, Guatemala and Honduras. This effort has permitted the study of CWR of 251 taxa of several economically, biologically and culturally important crops. (KSR #1)

#### **Plan**

##### **Policy**

**i.** A policy brief on Crop Wild Relatives has been drafted by the team working on the Darwin Initiative project funded for the conservation of Mesoamerican Crop Wild Relatives in 2019. This policy will be further refined during 2020 with inputs from members of the Crop Wild Relative Specialist Group and the Crop Trust. Once completed, it will be published as an IUCN guidance document. (KSR #42)

**ii.** A process to explore voluntary certification standards (VCS) and how these can assist to the implementation of CITES requirements for Appendix II listed medicinal and aromatic plants is under development. During 2019, work was conducted to develop the overall concept of how the voluntary certification standards (VCS) can assist to the implementation of CITES requirements for Appendix II listed medicinal and aromatic plants; this was discussed at the Plants Committee, and at a stakeholder workshop. Plans are in place to

take this to the 18th meeting of the Conference of the Parties to CITES (CoP18; see <https://www.traffic.org/news/making-cites-work-for-wild-medicinal-and-aromatic-plants/>). Among the priority potential species on Appendix II are *Euphorbia antisiphilitica*, *Prunus africana*, Agarwoods (*Aquilaria* spp.), *Aloe ferox*, as well other non-CITES listed species (e.g. *Boswellia* spp.). (KSR #26)

**iii.** Members of the Plant Conservation Committee worked extensively on the draft post-2020 Plant Conservation Strategy and this was presented to the Global Partnership for Plant Conservation in November 2019 in Chegndu, China. The strategy was submitted to the CBD Secretariat in December of 2019. (KSR #26)

##### **Research activities**

**i.** During 2019, work by members of the PCC was undertaken to identify Alliance for Zero Extinction sites (AZEs) for plants focused on plant hotspot regions. Kew implemented a project to identify plant based AZEs in Madagascar. South Africa completed an assessment of AZE sites as part of comprehensive assessment of Key Biodiversity Areas. (KSR #22)

**ii.** The identification of Key Biodiversity Areas (KBAs) in hotspots has been prioritised by the PCC. In Colombia, a project funded by the Critical Ecosystem Partnership Fund (CEPF) has identified KBAs in the Andes using data from Bromeliaceae and Ericaceae. Madagascar KBAs have been identified with funding from CEPF. South Africa has completed a nationwide systematic assessment of all KBAs; plants were the key triggers for the identification of KBAs, with 88% of KBAs being triggered due to the presence of threatened or restricted range plants. (KSR #22)



Two members of the Plant Conservation Committee at Global Partnership for Plant Conservation meeting in November 2019  
Photo: D. Raimondo

## Act

### Conservation actions

**i.** There has been ongoing discussion with Plant Specialist Groups to include sustainable use and trade issues as part of their activities. We are likely to see the results of this encouragement only during the next quadrennium, as these changes take some time to be implemented. (KSR #36)

**ii.** TRAFFIC, IUCN SSC Medicinal Plant Specialist Group and other partners initiated a project in Nepal on piloting FairWild certification of CITES Appendix II-listed *Nardostachys jatamansi* (see <https://www.traffic.org/news/succeeding-with-cites-new-project-aims-to-promote-sustainable-wild-jatamansi-trade-from-nepal/>). South Africa is in the process of piloting the Fairwild standard to develop a legislated management plan for five medicinal plants in the eastern parts of South Africa. (KSR #36)

### Network

#### Capacity building

**i.** Capacity development has been ongoing to the plant conservation network. University students in Madagascar, Colombia, and at various universities in Europe have been trained to use the IUCN Red List Categories and Criteria. During 2019, all plant Specialist Group Chairs and Red List Authority Coordinators met in October at the SSC Leaders' Meeting and lesson exchange took place; furthermore, two new plant groups were established: the Plants of Turkey Stand Alone Red List Authority and the Western Ghats Plant Specialist Group. (KSR #5)

**ii.** Ongoing Red List training support has been provided to all plant Specialist Groups; specifically, all leaders of plant Specialist Groups and Red List Authority Coordinators met in October 2019 at the SSC Leaders' Meeting. (KSR #1)

### Synergy

**i.** In order to provide more support to Plant Specialist Groups, the PCC is working to ensure as many groups can be hosted supported by a Botanic Garden. In order to assess the *status quo*, a survey was sent out before SSC Leaders' Meeting in late 2019 and good response was received. This identified where there are already good partnerships in place, and which Specialist Groups are keen for closer partnerships. (KSR #29)

**ii.** Case studies of good example of partnerships between Botanic Gardens and Specialist Groups exist for the Cactus and Succulent Plants Specialist Group, the Medicinal Plant Specialist Group, and the Cycad Specialist Group. These are being written up and will be placed on the Botanic Gardens Conservation International website to inspire other botanical gardens to come forward as hosts. (KSR #29)

**iii.** We aim to set up new partnerships for at least two Specialist Groups before the end of 2020. (KSR #29)

**iv.** The PCC has proposed that a sub-group of the Sustainable Use and Livelihoods Specialist Group (SULi) is formed that focuses on plants trade and use issues (see e.g. [https://www.cites.org/eng/news/cites-further-recognized-as-a-crucial-conservation-tool-that-benefits-wildlife-conservation-and-livelihoods-of-rural-communities\\_08112018](https://www.cites.org/eng/news/cites-further-recognized-as-a-crucial-conservation-tool-that-benefits-wildlife-conservation-and-livelihoods-of-rural-communities_08112018)). This group will be established during 2020 and will work on promoting plant sustainable use issues during the upcoming 2020–2024 quadrennium. (KSR #26)

## Acknowledgements

We thank the IUCN SSC for providing funding to support the meetings of the Plant Conservation Committee.

## Summary of activities 2019

Components of Species Conservation Cycle: 4/5

Assess	9	■■■■■■■■■
Plan	5	■■■■■
Act	2	■■
Network	6	■■■■■■

Main KSRs addressed: 1, 5, 6, 11, 22, 26, 29, 36, 42

KSR: Key Species Result