

IUCN SSC Brazil Plant Red List Authority



2019 Report



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Red List Authority Coordinators

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Location/Affiliation

National Centre for Brazilian Flora Conservation - Rio de Janeiro Botanic Gardens Research Institute, Rio de Janeiro, Brazil

Number of members

15

Social networks

Facebook:
Centro Nacional de Conservação da Flora - CNCFlora
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Mission statement

To coordinate, promote and contribute to all necessary conditions to avoid extinctions of Brazilian flora species, in line with the targets of the Global Strategy for Plant Conservation (GSPC) and with the national mandate to assess extinction risk for the National Red List of Brazilian flora, for the elaboration of action plans and maps of priority areas for the conservation of species threatened with extinction.

Projected impact for the 2017-2020 quadrennium

By the end of 2020, we aim to increase knowledge about the state of conservation of Brazilian endemic flora. The focus of extinction risk assessments will be on endemic tree species that occur throughout the country, especially those occurring in territories that have a small number of conservation mechanisms. Re-assessments of threatened or Near Threatened species will be carried out, focusing on tree species and especially those with economic value. Supporting the extinction risk assessments is a network of approximately 208 experts in the taxonomy and ecology of Brazilian flora. In addition, a new version of the CNCFlora system will be developed, containing a database of threats, Red List Authority assessment reviews, and a module for the National Action Plans that lead to improvements in status and, ultimately, removal of species from the Red List. In a megadiverse country, where native vegetation is being converted or fragmented, conservation actions involving government agencies and local actors must be developed. Thus, by 2020, the Brazil Plant Red

List Authority (BP-RLA) will participate in the elaboration of National Action Plans for threatened species with a focus on Critically Endangered species that do not currently benefit from conservation mechanisms.

Targets for the 2017-2020 quadrennium

Assess

Capacity building: (1) provide Red List capacity building for botanic experts; (2) provide two trainings on Communication and the Red List; (3) teach two training courses on georeferencing for assessment.

Green List: test the Green List for one species.

Red List: (1) complete assessment of 2,600 Brazilian endemic trees; (2) complete assessment of 884 endemic species from Rio de Janeiro State; (3) review assessment of Brazilian endemic trees from Botanic Gardens Conservation International (BGCI) and Royal Botanic Gardens, Kew; (4) update CNCFlora Information System to version 3; (5) complete extinction risk assessments for Brazilian native species occurring in Pantanal, Caatinga and Pampas; (6) carry out extinction risk assessments of Brazilian endemic trees; (7) quality control of Red List assessments; (8) participate in the workshop on regional reassessment of endangered flora and fauna.

Research activities: (1) carry out expedition field survey collections; (2) generate databases to be used for Red List assessments.



Field expeditions to collect propagules of the target species of the *Discocactus horstii* Conservation Research Project
Photo: Melissa Bocayuva

Field expeditions to collect propagules of the target species of the *Discocactus horstii* Conservation Research Project
Photo: Fernanda Saleme



Plan

Planning: (1) conduct field expeditions for the elaboration of Territorial Action Plans; (2) publish Territorial Action Plans for conservation of flora; (3) organise meetings of the National Action Plan for the conservation of Rio's endemic flora.

Policy: (1) include species assessed as threatened in the National Official Red List; (2) organise meetings on the Impact Reduction Plan to support decision and environmental management; (3) provide advice for policy and decision-making at the national level.

Network

Capacity building: complete training courses on Conservation Action Plans.

Membership: recruit new members.

Scientific meetings: participate in symposia, meetings, and workshops.

Synergy: (1) engage in internal organisational issues of SSC groups, four meetings, collaborations and training; (2) strengthen cooperation agreements and partnerships; (3) provide letters of endorsement; (4) organise working groups of expert teams and networks; (5) participate in one meeting on invasive exotic species.

Communicate

Communication: (1) support and contribute to virtual libraries; (2) conduct media and outreach events; (3) produce Specialist Group publications; (4) participate in the Fourth IUCN SSC Leaders' Meeting.

Activities and results 2019

Assess

Capacity building

i. In October, CNCFlora's co-chair held two training sessions at the Fourth SSC Leaders' Meeting in Abu Dhabi regarding the use of social media by conservation organisations and an information session for Red List Authority Coordinators. (KSR #5)

ii. In 2019, the team taught a georeferencing course to four undergraduate students focused on assessing conservation status. The students made valuable contributions to the assessments of Monimiaceae. (KSR #5)

Green List

i. We participated in the testing of the Green Status protocol, developed by the IUCN Green List Task Force (GLTF), with the study and application of the methodology for an important endemic tree species in Brazil, *Dimorphandra wilsonii* Rizzini (Fabaceae), in partnership with Dr Fernando Fernandes. Our results showed that, although the species is conservation dependent, there is hope for conservation gain and for improving its conservation status. We also shared the aforementioned deliverables with the GLTF and, recently, the data for *D. wilsonii* were incorporated into Green List efforts around the world, to be included in a scientific paper proposing to update the species' Green List status. It is anticipated that the paper will be published in 2020, pending the responses of peer reviewers. (KSR #1, 11)

Red List

i. In 2019, 1,003 assessments and reassessments of Brazilian endemic trees in Brazil were carried out as a contribution towards the Global Tree Assessment (GTA) goals. Among these, 701 are the first ever assessments (out of which 236

species were considered threatened, 71 classified as Data Deficient and 394 species classified as Near Threatened and Least Concern).

The other group consists of 302 reassessments of species already assessed by CNCFlora and/or the IUCN Red List. The reassessed species were firstly evaluated against the IUCN criteria between 2012 and 2014 in two National Red Books published by CNCFlora (<http://dspace.jbrj.gov.br/jspui/handle/doc/26> and <http://dspace.jbrj.gov.br/jspui/handle/doc/27>) and most of those taxa deemed as threatened are legally protected by the Brazilian Government. The results of the reassessments show that 219 species remain threatened with extinction. Assessments are constantly being submitted to the Red List of Threatened Species via SIS Connect by the team of experts of GTA/BGCI. The species evaluated in 2019 are available at this link: <https://ckan.jbrj.gov.br/dataset/avaliacao-2018-junho2020>. (KSR #1, 2, 7, 8)

ii. We completed the review of the conservation assessment of 685 species of Brazilian plants, represented by the group of Myrtaceae, at Royal Botanical Gardens, Kew, led by Eimear Nic Lughadha. (KSR #1, 2, 7, 8)

iii. In 2019, version III of the CNCFlora system began to be developed. This system performs assessments of the extinction risk of flora in Brazil. We also began the Brazilian Flora Information Panel, which synthesises data related to conservation assessments in a Business Intelligence (BI) format for public access. The forecast for completion of the two products is 2021. (KSR #6)



Meeting on the creation of the technical network for alert, early detection and rapid response to prevent the invasion of new exotic species
Photo: Mariana Gutiérrez, WWF-Brazil



Workshop for the elaboration of Territorial Action Plan for the Planalto Sul
Photo: Mariana Gutiérrez, WWF-Brazil

iv. In 2019, we carried out studies, reviews and improvements in the workflow designed to assess extinction risk, prioritising standardisation, updating manuals for internal use by CNCFlora/Jardim Botânico do Rio de Janeiro (JBRJ) and promoting greater agility in assessing the risk of extinction of species of Least Concern. A study of the documentation of the IUCN SIS database and SIS Connect systems was also carried out. As a result, the CNCFlora system is now fully compatible with the SIS Connect system information fields. (KSR #2)

v. We participated in the workshop on reassessments of endangered fauna and flora in the state of Espírito Santo and contributed to two chapters of the Red Book: Tuler, A.C., Leite, F.T. and Verdi, M. (2019). 'Gymnosperms threatened with extinction in the state of Espírito Santo'. In: Fraga, C.N., Formigoni, M.H. and Chaves, F.G. (eds.) Fauna and Flora Threatened with Extinction in the State of Espírito Santo, pp.136–149. Santa Teresa: National Institute of the Atlantic Forest. (in Portuguese); Freitas, J., Peixoto, A.L., Monteiro, D., Novelli, F.Z., Lopes, J.C., Christ, J.A., Verdi, M., Pellegrini, M.O.O., Barbosa, T.D.M., Freitas, V.C. and Lírio, E.J. (2019). 'Basal angiosperms threatened with extinction in the state of Espírito Santo'. In: Fraga, C.N., Formigoni, M.H. and Chaves, F.G. (eds.) Fauna and Flora Threatened with Extinction in the State of Espírito Santo, pp.150–163. Santa Teresa: National Institute of the Atlantic Forest. (in Portuguese). (KSR #2, 43)

Research activities

i. Three field expeditions were carried out to collect propagules of the target species of the *Discocactus horstii* Conservation Research Project: a Critically Endangered species of

Cactaceae from the North of Minas Gerais. The propagules are used in the experiments of cultivation and propagation of species aiming at reintroduction. This project aims to implement three conservation actions of the National Action Plan for the conservation of endangered flora in the region of Grão Mogol Francisco Sá. (KSR #8)

ii. An expedition was carried out in a priority conservation area in the Biological Reserve Springs of the Serra do Cachimbo (June 2019); 225 samples were collected. (KSR #1, 15)

iii. CNCFlora/JBRJ maintain a data repository page open to the public within the Research Department of the Botanical Garden of Rio de Janeiro for storing all geospatial data of the species evaluated. CNCFlora/JBRJ also keep an image database for internal use, consisting of images and metadata of endangered species, field activities and conservation actions. We also maintain a database of threats that covers the entire country, in the software CartoDB, for internal use by staff of CNCFlora/JBRJ while developing extinction risk assessments and conservation action plans. The CNCFlora/JBRJ website also stores data from publications and species risk assessment sheets (<http://cncflora.jbrj.gov.br/portal>). The latter needs updates to better serve the public. Therefore, updated data is available in the repositories previously mentioned. (KSR #6, 7, 8)

Plan

Planning

i. We produced a Territorial Action Plan for the conservation of threatened species of the Southern Plateau of Brazil. (KSR #15)

ii. We provided technical advice at workshops that developed Territorial Action Plans for the 'Cerrado Tocantins' and 'Pampa Bagé'. (KSR #15, 20, 21)

iii. Six meetings were held on the implementation and monitoring of the National Action Plan for the Conservation of Endemic Endangered Flora of the State of Rio de Janeiro. (KSR #15)

Policy

i. A meeting was held on the Oil and Gas Exploration Impact Reduction Plan for Marine and Coastal Biodiversity; a preparatory meeting was held on the Mining Impacts Reduction Plan for Biodiversity. (KSR #27)

ii. We elaborated a technical note on behalf of the Ministry of the Environment 2019, regarding the current conservation status of 'ipê', *Handroanthus serratifolius* Mattos (Bignoniaceae), a taxon that is a candidate to be included in CITES Appendix II as the most illegally logged timber species in the Amazon. Additionally, we collaborated with the non-profit organisation Biodiversitas, providing data related to threatened plant species to achieve the goals of the Brazilian Alliance for Zero Extinction (BAZE). Finally, we also provided data on Critically Endangered species of plants for state governmental agencies planning to implement Territorial Action Plans. All information provided technical inputs for decision makers at the Ministry of the Environment, and positively influenced public policies at the national level. (KSR #15, 27)

iii. CNCFlora endorsed a release documenting irregularities in a bidding process of a mining company in the south of Brazil, led by the Lagoas do Sul Action Plan committee, to which we belong. We are also members of the Lagoas do Sul Technical Advisory Group. (KSR #29)

Network

Capacity building

i. Training was provided on Territorial Action Plans for the conservation of threatened species for staff of 13 State Environmental Agencies. (KSR #17)

Membership

i. Seven new members were recruited for the Brazilian Plants Red List Authority in 2019. These new members have been working directly with extinction risk assessments and conservation action planning for Critically Endangered species, which are being targeted for tailored territorial action plans currently under development within the GEF Pro-Species project framework and partners. This year we also strengthened a partnership with the Centre for Social and Environmental Responsibility, which is also part of the Research Institute of the Botanical Garden of Rio de Janeiro. Collaborators from this centre are being trained and are also carrying out research activities related to the georeferencing of occurrence records of species submitted to the extinction risk assessment process. (KSR #29)

Scientific meetings

i. We participated in the IV Interinstitutional Meeting on Conservation, Restoration and Forest Economy. (KSR #28)

Synergy

i. In 2019, we participated in three internal meetings of the IUCN SSC Plant Conservation Committee (PCC). CNCFlora was also represented at the Fourth SSC Leaders' Meeting in Abu Dhabi, at which we were awarded a recognition prize for our efforts towards the complete risk assessment of the Brazilian flora. Collabora-

Patrícia da Rosa presenting the CNCFlora-JBRJ in event GEF PROESPECIES- 2019
Photo: Nivea Pinto



Technical visit on the implementation and monitoring of the National Action Plan for the Conservation of Endemic Endangered Flora of the State of Rio de Janeiro



Training on Territorial Action Plans for the conservation of threatened species
Photo: Mariana Gutiérrez, WWF-Brazil



The Red list team provided teaching in training on georeferencing course to assess the state of conservation to undergraduate students
Photo: Idimar Silva

rations were carried out through the preparation of technical documents, reports, reviews of evaluations of other Red List Authorities' assessments, and testing of new technologies to enhance our capability to produce reliable risk assessments and identify potential Least Concern species. We also participated in the testing of the Green Status protocol, developed by the Green List Task Force, with the study and application of the methodology for an important endemic tree species in Brazil, *Dimorphandra wilsonii* Rizzini (Fabaceae). Another point of collaboration was the training in the IUCN SIS database system offered by Marcello Tognelli in August. CNCFlora/JBRJ also collaborated with current extinction risk assessments for Brazilian trees in association with the Global Tree Assessment programme of Botanic Gardens Conservation International (GTA/BGCI). (KSR #29)

ii. In 2019, CNCFlora and partners strengthened their cooperation agreements and partnerships, including the extinction risk assessments of trees with GTA/BGCI, a constant flow of assessment reviews with Kew's conservation unit. CNCFlora was also engaged directly in activities with departments within the Brazilian Ministry of the Environment, such as Chico Mendes Institute for Biodiversity Conservation (ICMbio) and Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), particularly under the scope of the GEF Pro-Species project.

We also strengthened our cooperation with SOS Mata Atlântica, a non-profit organisation monitoring forest cover loss within this biome. Specific partnerships were strengthened within protected areas, such as Serra dos Órgãos National Park and Tijuca National Park, both in Rio de Janeiro, as well as Grão-Mogol State Park, where we conducted a project to improve the status of the Critically Endangered *Disocactus horstii*. Finally, we carried out activities related to the development of the Arboretum Programme, an initiative aiming to detect, gather, reproduce and reintroduce threatened tree species of southern Bahia's Atlantic Forests, which are among the richest tropical areas in the world. (KSR #29)

iii. CNCFlora has had a robust network of plant specialists since the publication of the first Brazilian Red Data Book for plants in 2013. In 2019, approximately 60 botanical specialists provided taxonomic and geographical validation of our conservation assessments. We also hired two additional experts as new members of the expert working group of the Brazil Plant Red List Authority 2017–2020 group. (KSR #7)

iv. We participated in a meeting on the creation of the technical network for alert, early detection and rapid response to prevent the invasion of new exotic species. (KSR #13)

v. In October 2019, all CNCFlora staff participated in an internal workshop to formulate a tactical plan in order to make progress in the main areas in which we are active: extinction risk and action planning. Activities aimed at expanding the partnership with the PCC and IUCN SSC were also undertaken.

Communicate

Communication

i. CNCFlora/JBRJ maintains a data repository page open to the public within the Research Department of the Botanical Garden of Rio de Janeiro, called ckan, geonode and an image bank. All data regarding species evaluated in 2019 are available at: <https://ckan.jbrj.gov.br/dataset/avaliacao-2018-junho2020>. (KSR #28)

ii. Sixty-eight postings were made on social media (<https://www.facebook.com/jbrj.cncflora>; <https://www.instagram.com/jbrj.cncflora/?hl=pt-br>). (KSR #28)

iii. Five notes were published in the Pro-Species Project newsletters (<https://mailchi.mp/0c8afce35b6e/pr-espices-boletim-mensal-no6>; <https://mailchi.mp/ea63af203b01/pr-espices-boletim-mensal-no-15>), and a scientific letter analysing the impacts of 2019's fire surges in Amazonia and its threatened flora was published in the renowned journal *Frontiers in Ecology and the Environment* (available at: <http://dx.doi.org/10.1002/fee.2197>) (KSR #28, 43)





iv. In October, CNCFlora's co-chair participated in the Fourth SSC Leaders' Meeting in Abu Dhabi. (KSR #28)

Acknowledgements

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Summary of activities 2019

Components of Species Conservation Cycle: 4/5

Assess	11	
Plan	6	
Network	8	
Communicate	4	

Main KSRs addressed: 1, 2, 5, 6, 7, 8, 11, 13, 15, 17, 20, 21, 27, 28, 29, 43

KSR: Key Species Result