



Species

ISSUE 64

2023 Report of the IUCN Species Survival Commission and Secretariat



The IUCN Species Survival Commission (SSC)

The IUCN Species Survival Commission (SSC) is a science-based network of thousands of volunteer experts from almost every country of the world, all working together toward achieving the vision of “a just world that values and conserves nature through positive action to both prevent the loss and aid recovery of the diversity of life on earth.”

Members of SSC belong to one or more of near 200 Specialist Groups, Red List Authorities, Action Partnerships, Task Forces, and Conservation Committees that make up the Network, each focusing on a taxonomic group (plants, fungi, mammals, birds, reptiles, amphibians, fishes, and invertebrates), national species, or a disciplinary issue, such as sustainable use and livelihoods, translocation of species, wildlife health, climate change, and conservation planning.

Framed by the Species Conservation Cycle, SSC’s major role is to provide information to IUCN on biodiversity conservation, the inherent value of species, their role in ecosystem health and functioning, the provision of ecosystem services, and their support to human livelihoods. This information is fed into the IUCN Red List of Threatened Species.

2021-2025 Species Strategic Plan

The IUCN Species Strategic Plan encompasses the joint work of the IUCN Species Survival Commission and a number of partnerships to achieve more than 2,700 targets proposed by the Network during the 2021-2025 quadrennium.

To accomplish those targets, the Species Conservation Cycle was established, which is the conceptual framework for the Network activities. The Species Conservation Cycle’s main purpose is to guide efforts for valuing and conserving biodiversity through three essential components that are linked to each other:

ASSESS: Understand and inform the world about the status and trends of biodiversity.

PLAN: Develop collaborative, inclusive and science-based conservation strategies, plans and policies.

ACT: Convene and mobilise conservation actions to improve the status of biodiversity.



Their implementation requires two transversal components:

NETWORK: Enhance and support our immediate network and alliances to achieve our biodiversity targets.

COMMUNICATE: Drive strategic and targeted communications to enhance our conservation impact.

SSC Species Report

Annual progress in the implementation of the 2021-2025 Species Strategic Plan is documented in the SSC *Species Report*, which consists of a comprehensive description and analysis of the activities and results generated by the members of the SSC Network and Centers for Species Survival (CSS) each year. Each SSC and CSS group contributes to this document by providing a yearly summarised description of their achievements, which is presented in stand-alone reports.

Structure of the IUCN SSC and CSS Stand-alone Reports

Stand-alone reports summarize the activities conducted and results generated by each group member of the SSC and CSS. Following, is the structure of the stand-alone report and the contents under each session.

Title of the group

Photograph(s) of the Chair/Co-Chairs

Group information

Includes names of Chair/Co-Chairs, Vice-Chairs, Deputy Chairs, Red List Authority Coordinators, Program Officers, Species Survival Directors, and Species Survival Officers, their institutional affiliations, number of members and social networks currently active.

Logo of the group

Mission statement

Includes the mission of the group.

Projected impact for the 2021-2025 quadrennium

Includes the description of the impact on species conservation resulting from the implementation of the targets formulated by the group for the 2021-2025 quadrennium.

Targets for the 2021-2025 quadrennium

Includes the targets planned by the SSC or CSS group for the 2021-2025 quadrennium ordered alphabetically by component of the Species Conservation Cycle. Each target is labeled with a numerical code (e.g., T-001, T-012) that identifies it in the SSC DATA database and its status for the reported year is indicated (Not initiated, On track or Achieved).

Activities and results

Includes the targets for which activities were conducted and results were generated during the reported year, ordered alphabetically, first by component of the Species Conservation Cycle, and second by Activity Category. Description of activities and results includes the indicator that best describes progress, its associated quantitative or qualitative result, and the narrative description of the activity conducted or result obtained. Each activity or result reported is linked to the Key Species Result to which it is mainly associated (e.g., KSR#1, KSR#5).

Acknowledgements

Includes the acknowledgements to funding agencies, partners, and persons who contributed to the progress of the targets of the group.

Summary of achievements

Summarises information of the group's strategic plan for the quadrennium and progress achieved implementing targets for all the components of the Species Conservation Cycle during the reported year.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

Example for the recommended citation:

Drechsler dos Santos, E.R. and da Silva Canéz, L. 2024. 2023 Report of the Brazil Fungal Specialist Group. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat*. Gland, Switzerland: IUCN. 6 pp.

IUCN SSC Brazil Fungal Specialist Group



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NUMBER OF MEMBERS
8

SOCIAL MEDIA AND WEBSITE

Instagram: @iucnssc_fungibrazil
X: @iucnfungibrazil
Website: <https://www.iucnbrazfun.com/>

Mission statement

Brazil hosts a great fungal diversity, but little is known about its conservation. The basics for a policy of including Fungi in Brazil's conservation agenda still do not exist, given that recently threatened species published on the global Red List have not yet been recognised in a National Red List or in Brazilian government conservation and biodiversity programs. Thus, the IUCN SSC Brazil Fungal Specialist Group emerged with the vision: Brazil, a country that values and conserves Fungi. Our experts, mainly mycologists and lichenologists, are dedicated to including Fungi in the species survival programs, environmental law, protected areas, social and economic policy, ecosystem management, education and communication. Some of our goals are: to train specialists to assess the status of fungal species conservation, to assess the conservation status of fungal species (promoting workshops), to recognise agents of environmental competence and search for political engagement, and to communicate the importance of fungal conservation to specialists from different areas of environmental sciences and the general population. In this way, we want to work with training specialists to assess species conservation status (Assess) and contact decision makers of environment agencies (Network), which will allow the elaboration

of plans (Plan) and actions for species conservation (Action). All these activities will be accompanied by communication actions (Communication).

Projected impact 2021–2025

A key priority is to diversify and expand Brazil Fungal Specialist Group membership so we better represent, and engage with, the use of wild species across all taxonomic realms and improve our representation in Brazil and globally. By the end of 2024, we will increase the number of assessed and published in the IUCN Red List over 100 fungal species that occur in Brazil and during the quadrennium, will keep the efforts for extinction risk assessments, targeting endemic and near-endemic species, as more as it will be possible. During the quadrennium we are moving forward with negotiations with government agencies and by the end of 2024 we will have the the term FUNGA included in the Brazilian extinction risk legislation, and by the end of 2025 we will have the first fungal species composing a national Red List, the first national Red List for Brazilian Funga. By the end of 2025, we will include a significant number of fungal species as beneficiaries in National Action Plans (PANs and PATs) for the Conservation of Threatened Species in an order of priority of endemics (from CR to VU).

Targets 2021–2025

ASSESS

T-003 Produce regional/national assessments of species extinction risk based on the IUCN Red List guidelines, offering to government-competent environmental institutions the specialised support for species indication for publication of a national/regional fungal Red List.
Status: On track

T-004 Organise the Brazilian fungal Red List workshops.
Status: On track

T-005 Provide support for organising and conducting South American IUCN workshops on assessing fungal and lichen species for the IUCN Global Red List.
Status: On track

T-011 Contribute and support the final process of the assessment and publication of the rest of the species proposed during the 1st Brazilian workshop on assessing fungal and lichen species for the IUCN Global Red List.
Status: On track

T-013 Seek financial support for research and conservation actions related to threatened fungal species.
Status: On track

Descella archeureta, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List
Photo: Matthew Smith

Lamelloporus americanus, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List
Photo: Thomas Laessle



PLAN

T-008 Select species for promotion of conservation actions at national or regional level.

Status: On track

ACT

T-006 Active research on Brazilian federal legislation to find points – laws, articles and items – of approximation for the inclusion of Fungi in the national legislation.

Status: On track

T-012 Establish the first Brazilian *ex situ* fungal collection of threatened species – in partnership with MIND.Funga.

Status: On track

T-014 Promote the formal inclusion of Fungi in the Extinction Risk Assessment Process of Brazilian Biodiversity.

Status: On track

NETWORK

T-001 Discuss, deliberate and invite members with a broad range of expertise, including non-mycologists and non-academics.

Status: On track

T-007 Offer training on fungal red listing for students and specialists.

Status: On track

COMMUNICATE

T-009 Discuss, deliberate, create and update a social media (Instagram/X) profile and a website for the group.

Status: On track

T-010 Participation of members in national and international scientific events communicating about the conservation of Brazilian Fungi and achievements of the Brazil Fungal Specialist Group. Also, contribute and promote the project 'Flora e Funga do Brasil'.

Status: On track

Activities and results 2023

ASSESS Red List

T-003 Produce regional/national assessments of species extinction risk based on the IUCN Red List guidelines, offering to government-competent environmental institutions the specialised support for species indication for publication of a national/regional fungal Red List. (KSR 6)

Number of national Red List reassessments published: 1

Result description: We conducted the reassessment of *Fomitiporia nubicola* during the 3rd Latin American Workshop (XI CLAM), changing its category from Vulnerable (VU) to Critically Endangered (CR).

Number of new global Red List assessments completed: 7

Result description: Seven assessments were completed, four of them from species occurring in Brazil. The assessment process occurred during the 3rd Latin American workshop in the XI CLAM in 2023.

Number of technical documents provided to support RL assessments/reassessments: 1

Result description: Collaboration during development of the '*Manual operacional para planejamento e execução de processos estaduais de avaliação do risco de extinção das espécies da fauna e da flora*' (freely translated as 'Operational Manual for State Processes of Evaluation of the Risk of Extinction of Fauna and Flora Species'). In the manual, the Brazil Fungal SG is recommended as source of information and support for the evaluation of extinction risk for Fungi at the state level in Brazil.

T-005 Provide support for organising and conducting South American IUCN workshops on assessing fungal and lichen species for the IUCN Global Red List. (KSR 6)

Number of new global Red List assessments completed: 0

Result description: In 2023, seven assessments were completed, four of them species occurring in Brazil (3rd Latin American Workshop).



Xylobolus gongylodes, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List
Photo: Michelle Campi



Fomitiporia nucibola, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List. This was the first fungal species re-assessed and now is Critically Endangered (CR)
Photo: Genivaldo Alves-Silva



Parmotrema pachydermum, Critically Endangered.
Photo: Adriano Afonso Spielmann

Number of global Red List reassessments completed: 0

Result description: The species *F. nucibola* was reassessed, changing its category from Vulnerable (VU) to Critically Endangered (CR). (3rd Latin American Workshop)

Research activities

T-013 Seek financial support for research and conservation actions with threatened fungal species. (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 2

Result description: Two research projects are being carried out to improve the knowledge about the biology and conservation of threatened species, i.e. *F. nucibola* and *Wrightoporia araucariae*, both Critically Endangered. The projects are supported by The Mohamed bin Zayed Species Conservation Fund (MBZ project numbers 222530589 and 202524755).

ACT

Conservation actions

T-012 Establish the first Brazilian *ex situ* fungal collection of threatened species – in partnership with MIND.Funga. (KSR 10)

Number of threatened species benefiting from *ex situ* conservation action: 6

Result description: In 2023, six threatened species (ca. 30 specimens) were preserved *ex situ* in CFAB-MIND.Funga collection.

Technical advice

T-014 Promote the formal inclusion of Fungi in the Extinction Risk Assessment Process of Brazilian Biodiversity. (KSR 10)

Number of technical consultations provided to support conservation actions: 1

Result description: The submission in September 2023 of the technical note entitled 'Proposal for the Inclusion of the Fungi Kingdom in the Extinction



Agaricus globocystidiatus, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List
Photo: Mariana Drewinski

Left: *Bondarzewia logerciae*, assessed during the 3rd Latin American workshop on assessing fungal (and lichens) species for the IUCN Global Red List
Photo: Ricardo Drechsler-Santos

Risk Assessment Process of Brazilian Biodiversity, in accordance with the National Biodiversity Policy, for review by the National Secretariat of Biodiversity, Forests, and Animal Rights, of the Ministry of Environment and Climate Change (MMA) back, elaborated in close partnership with the CNCFlora/JBRJ, marks a significant milestone in the recognition and conservation efforts of fungal species in Brazil. This proposal acknowledges the vital role that Fungi play in ecosystems and aims to address their conservation needs by integrating them into the national biodiversity assessment framework. By aligning with the National Biodiversity Policy, this initiative seeks to ensure the protection and sustainable management of fungal diversity, contributing to the overall conservation goals of the country. The proposal extends beyond mere recognition by advocating for the inclusion of the Fungi Kingdom in the National Program for the Conservation of Endangered Species - Pro-Species. This strategic move demonstrates a commitment to proactive conservation measures tailored specifically to fungal species, including prevention, conservation, management, and governance actions. By formalising the integration of Fungi into national conservation programs, Brazil takes a pioneering step towards safeguarding its fungal biodiversity and addressing the unique conservation challenges faced by these often-overlooked organisms. This comprehensive approach reflects a paradigm shift in conservation practices, emphasising the importance of inclusivity and holistic conservation strategies for preserving the full spectrum of biodiversity.

NETWORK

Capacity building

T-001 Discuss, deliberate and invite members with a broad range of expertise, including non-mycologists and non-academics. (KSR 2)

Number of people trained in assessment tools: 1

Result description: Kelmer Cunha, an official trainer of RLA IUCN, was invited and accepted to be part of the Group in March 2023.

T-007 Offer training on fungal red listing for students and specialists. (KSR 2)

Number of people trained in assessment tools: 60

Result description: Twenty people were trained in fungal red listing in the 3rd Latin American for assessment of fungal and lichen species for the IUCN Red List in the 11th Latin American Congress of Mycology (XI CLAM); other 40 people were trained in fungal red listing, *ex situ* preservation and environmental policies in an online academic course for undergraduate and postgraduate students from different Brazilian universities.

[SSC Grant awarded]

COMMUNICATE

Communication

T-009 Discuss, deliberate, create and update a social media (Instagram/X) profile and a website for the Group. (KSR 13)

Number of media articles mentioning IUCN Species theme: 2

Result description: A short communication was published in news format in *Oryx* about the Specialist Group creation. Also, a short communication was published in *Boletim Micobiota* from the Brazilian Mycological Society about the creation of the Group.

Number of digital communication outputs developed in relation to specific taxonomic groups: 3

Result description: In 2023, an Instagram account and a webpage were created for sharing information about the Group's activities and fungal conservation. An Instagram post was published by a partner profile (@IFungiLab) to promote the Brazil Fungal SG.

Scientific meetings

T-010 Participation of members in national and international scientific events communicating about the conservation of Brazilian Fungi and achievements of the Brazil Fungal Specialist Group. Also, contribute and promote the project 'Flora e Funga do Brasil'. (KSR 13)

Number of scientific events in which the members participated: 1

Result description: Participation of Group members in the IX Latin American Congress of Mycology in Panama. On this occasion, members coordinated the 3rd Latin American IUCN Workshop for assessing fungal and lichen species and delivered talks about fungal conservation.

[SSC Grant awarded]

Summary of achievements

Total number of targets 2021–2025: 13

Geographic regions: 2 Global, 11 America

Actions during 2023:

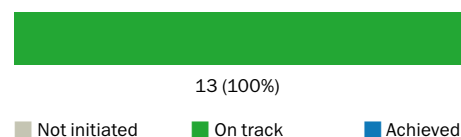
Assess: 6 (KSR 5, 6)

Act: 2 (KSR 10)

Network: 2 (KSR 2)

Communicate: 3 (KSR 12, 13)

Overall achievement 2021–2025:





Nothobranchius fuscotaeniatus
Photo: Csenge Nagy



Tetra Parnaiba
Photo: Karina Molina



Trioceros hoehnelii
Photo: Christopher V. Anderson



Sternberia lutea
Photo: Hayri Duman



Egretta rufescens
Photo: Ernesto Gómez



Lactifluus neotropicus
Photo: Aida Vasco



Mayfly nymph (*Ecdyonurus* sp.)
Photo: Astrid Schmidt-Kloiber and Wolfram Graf