IUCN

SSC
Species Survival Commission

Species

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2023 Report of the IUCN Species Survival Commission and Secretariat

Stand-alone report
IUCN SSC Aquatic Fungi Specialist Group

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 standalone 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 Authory 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:
Fernandes, I. and Fryar, S. 2024. 2023 Report of the Aquatic Fungi Specialist Group. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat.* Gland, Switzerland: IUCN. 4 pp.

2023 Report

IUCN SSC Aquatic Fungi Specialist Group

CO-CHAIR
Isabel Fernandes
University of Minho, Portugal

CO-CHAIR
Sally Fryar
Flinders University, Australia

NUMBER OF MEMBERS
10

SOCIAL MEDIA AND WEBSITE
X: @IUCNAquaFungi

Mission statement

To promote the long-term conservation of the world's freshwater and marine (aquatic) fungi.

Projected impact 2021–2025

Aquatic fungi are a polyphyletic group connected by their ecological features (growing and reproducing mainly in marine or freshwaters) rather than by taxonomy. There are more than 6000 species described worldwide, and for many species, our knowledge about their ecology, occurrence, range, etc. is still scarce. As a newly formed entity, the IUCN SSC Aquatic Fungi Specialist Group's main priority is to establish an active, globally representative team by continuing to recruit members from diverse regions with expertise in aquatic fungi. The group aims to increase the awareness of aquatic fungi and their importance in marine and freshwater habitats through engagement with relevant specialist IUCN groups, other scientists and the general public via the production of a website, social media, publications, and conference talks. The group aims to train at least 5 members on red listing, to undertake Red List assessment for 3 priority species of aquatic fungi.

Targets 2021–2025

ASSESS

T-009 Undertake Red List assessments for over three priority species.
Status: Not initiated

T-011 Increase knowledge about aquatic fungi diversity, taxonomy and distribution.
Status: On track

T-012 Hold a an online workshop to identify priority species for assessment and to agree on which assessments are most important at this stage.
Status: Not initiated

T-014 Adapt IUCN protocols to aquatic fungi.
Status: Not initiated

PLAN

T-016 Develop a conservation agenda for aquatic fungi, in collaboration with FUNACTION, and disseminate it globally.
Status: Not initiated

ACT

T-013 Produce monitoring guidelines in collaboration with MoSTFun, and disseminate globally.
Status: Not initiated

NETWORK

T-003 Engage with relevant Specialist Groups, Red List Authorities, Conservation Committees and Task Forces to establish a credible presence for aquatic fungi across the SSC.
Status: On track

T-004 Expand membership, especially in currently underrepresented regions, e.g. Africa, South America.
Status: On track

T-006 Identify and appoint a Red List Authority Coordinator.
Status: Not initiated

T-007 Hold an in-person SG meeting.
Status: On track

T-008 Get at least five Specialist Group members trained in Red Listing, with certificates – ideally covering the different geographic regions, and different taxa.
Status: Not initiated

COMMUNICATE

T-005 Create a website for SG.
Status: On track

T-010 Raise awareness about aquatic fungi and IUCN SSC Aquatic Fungi SG.
Status: On track

T-015 Set up social media presence for the Group.
Status: On track

Activities and results 2023

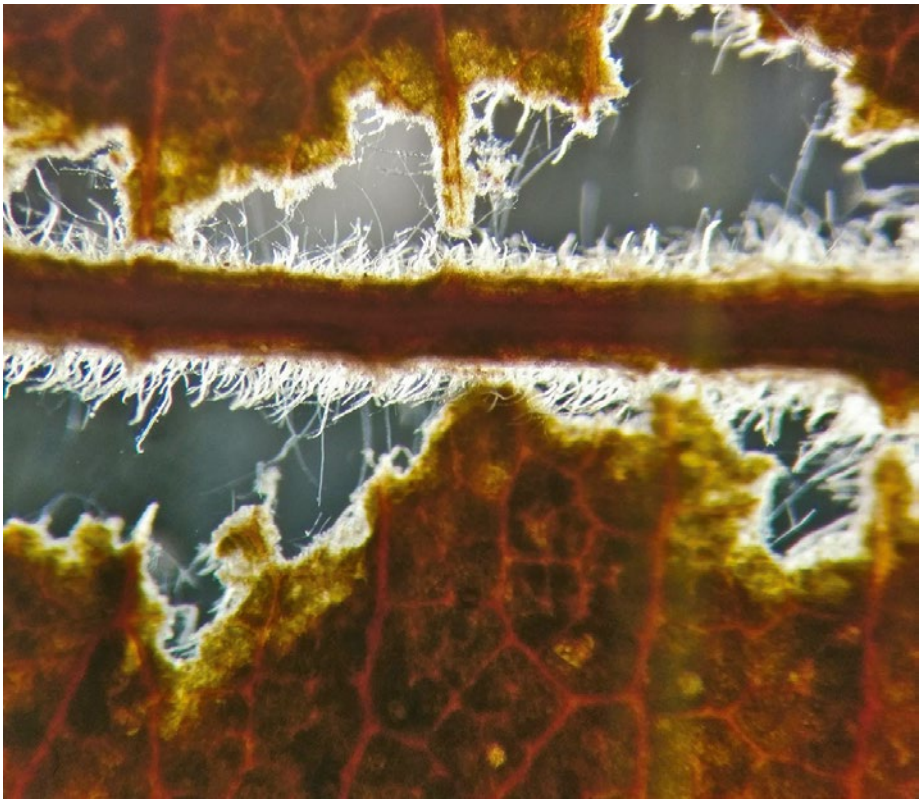
ASSESS

Research activities

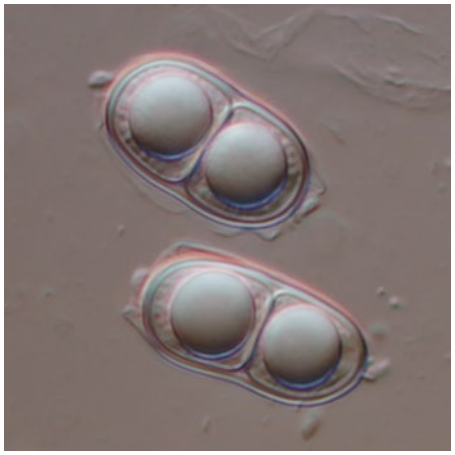
T-011 Increase knowledge about aquatic fungi diversity, taxonomy and distribution. (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 1

Corollospora maritima spore
Photo: Sally Fryar



Aquatic fungi *mycelium* on a decomposing leaf
Photo: Isabel Fernandes



Tunicatispora australiensis spores
Photo: Sally Fryar

Result description: A paper was published that included several members of the Group as co-authors about the creation of the Global Consortium for the classification of fungi and fungus-like taxa (Hyde, K.D. *et al*. (2023). "Global consortium for the classification of fungi and fungus-like taxa". *Mycosphere* 14(1): 1960–2012).

NETWORK

Synergy

T-003 Engage with relevant Specialist Groups, Red List Authorities, Conservation Committees and Task Forces to establish a reliable presence for aquatic fungi across the SSC. (KSR 2)

Number of Specialist Groups, Red List Authorities, Conservation Committees and Task Forces with aquatic fungi representation: 1

Result description: Co-Chair Sally Fryar joined the IUCN SSC Fungal Conservation Committee in December 2023.

COMMUNICATE

Communication

T-010 Raise awareness about aquatic fungi and IUCN SSC Aquatic Fungi SG. (KSR 12)

Number of media articles mentioning IUCN Species theme: 2

Result description: Co-Chair Isabel Fernandes talked about the Group in a TV interview (in Portuguese). Also, Isabel Fernandes, Andreas Bruder and Monika Böhm talked about the Group in a newspaper interview (in German). Both interviews took place in November 2023.

T-015 Set up social media presence for the Group. (KSR 12)

Number of social media accounts created: 1

Result description: An X (formerly Twitter) profile was created for the Group in November 2023.

Number of social media officer appointed: 1

Result description: Co-Chair Isabel Fernandes was appointed as social media officer of the Group.

Acknowledgements

Jennifer Anderson, Isabel Fernandes, Andreas Bruder, and Hans-Peter Grossart would like to thank the FUNACTION project, funded by Biodiversa+, the European Biodiversity Partnership under the 2021–2022 BiodivProtect joint call for research proposals, co-funded by the European Commission (GA N°101052342) and with the funding organisations: FORMAS, Sweden (2022-01701); Fundação para a Ciência e Tecnologia, Portugal (DivProtect/0007/2021); Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung, Switzerland (31BD30_209584); Deutsche Forschungsgemeinschaft e.V., Germany (GR1540/47-1). We are also thankful to IUCN Species Survival Commission, Monika Böhm and Cátia Canteiro (Global Center for Species Survival - Indianapolis Zoo), Gregory M. Mueller (IUCN SSC Fungal Conservation Commission), Ian Harrison (IUCN SSC Freshwater Conservation Commission) and Amanda Vincent (IUCN SSC Marine Conservation Commission) for their support for the creation of the Group and development of activities.

Summary of achievements

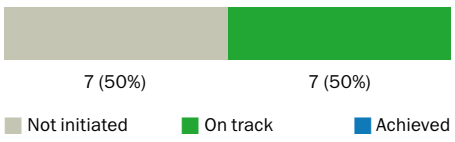
Total number of targets 2021–2025: 14

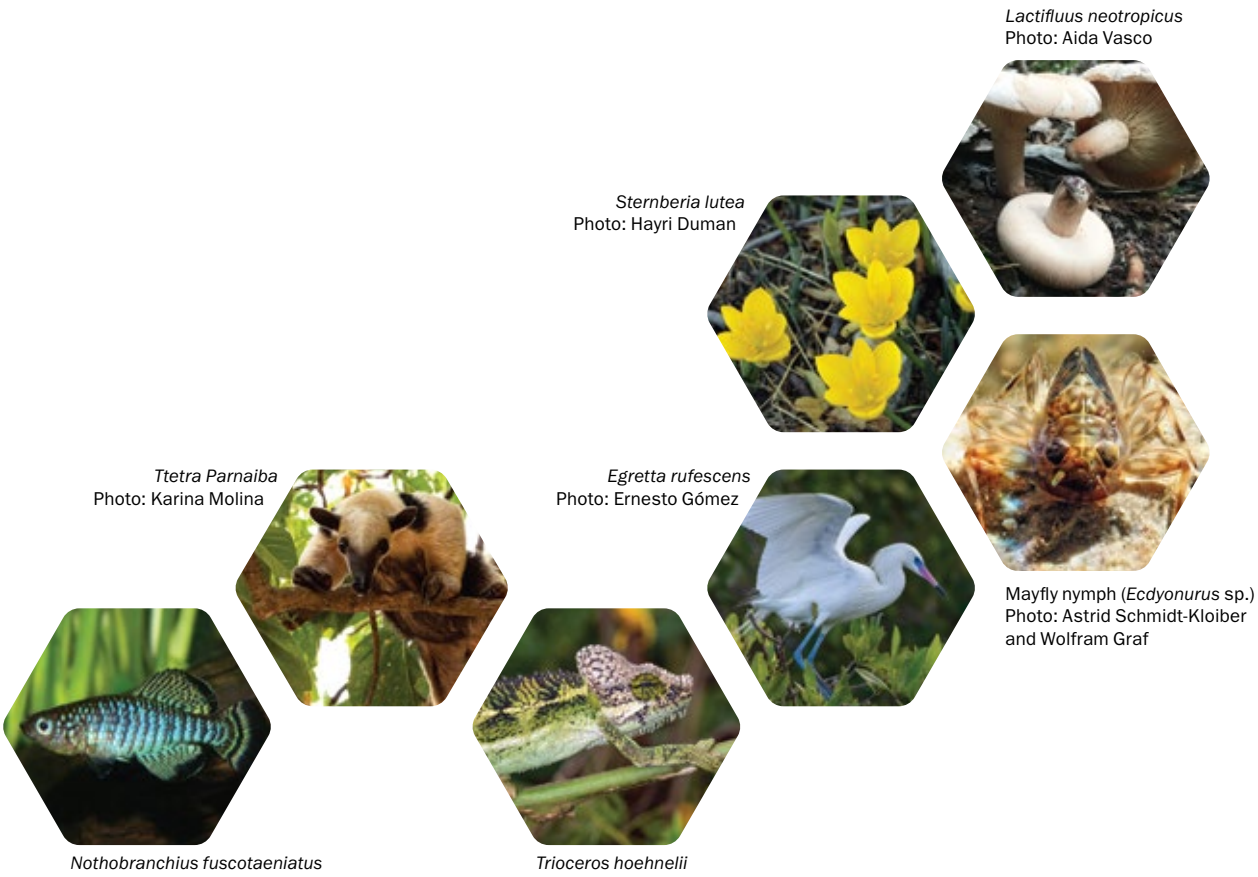
Geographic regions: 13 Global, 1 Europe

Actions during 2023:

Assess: 1 (KSR 5)
Network: 1 (KSR 2)
Communicate: 3 (KSR 12)

Overall achievement 2021–2025:





Lactifluus neotropicus
Photo: Aida Vasco

Sternberia lutea
Photo: Hayri Duman

Ttetra Parnaiba
Photo: Karina Molina

Egretta rufescens
Photo: Ernesto Gómez

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

Nothobranchius fuscotaeniatus
Photo: Csenge Nagy

Trioceros hoehnelii
Photo: Christopher V. Anderson