



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:

Mercier, A. and Juinio-Meñez, M. 2024. 2023 Report of the Sea Cucumber Specialist Group. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat*. Gland, Switzerland: IUCN. 6 pp.

2023 Report

IUCN SSC Sea Cucumber Specialist Group



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NUMBER OF MEMBERS

19

Mission statement

Raise global awareness of sea cucumbers, including their role in marine ecosystems and the many threats they face, and help expand the knowledge base necessary to ensure their protection worldwide, especially for commercially exploited species, through education, networking and training initiatives, systematic reviews, scientific research, and the update and expansion of conservation status records.

Projected impact 2021–2025

Not stated yet.

Targets 2021–2025

ASSESS

T-005 Undertake a review of the IUCN assessment criteria in light of the specificities and life-history strategies of sea cucumbers, before we proceed with the assessment of more species, in order to minimise the use of the Data Deficient criterion.
Status: Not initiated

T-006 Get Specialist Group members trained in red listing with certificates.
Status: Not initiated

T-007 Produce a global review of (i) threats/pressures on and (ii) management measures – and their implementation – for

sea cucumber conservation, by region.

Status: Achieved

T-022 Produce scientific papers that assess the taxonomy of cryptic sea cucumber species and species complexes.
Status: On track

T-023 Conduct an assessment of red-listed species.

Status: On track

T-024 Conduct scientific studies that increase knowledge of sea cucumber taxonomy, biodiversity, and/or conservation.
Status: On track

T-027 Conduct population surveys to assess the status of important commercial species.
Status: On track

PLAN

T-008 Undertake conservation planning for key species or regions (with the CPSG).
Status: On track

T-009 Develop a strategic plan for next quadrennium.
Status: Not initiated

ACT

T-010 Work with the UN Food and Agricultural Organization (FAO) to update the status of the world's sea cucumber fisheries.
Status: Achieved

T-011 Contribute to The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) technical working group on Threatened Species.
Status: Not initiated

T-012 Work with CTI-CFF to improve the status of CTI priority threatened species in the IUCN Red List in the categories of Near Threatened, Vulnerable, Endangered, Critically Endangered, Extinct in the Wild and Extinct.
Status: Not initiated

T-013 Work with CTI-CFF to increase the number of CTI priority threatened species protected under CITES appendix I, II, III.
Status: Not initiated

NETWORK

T-001 Create regional or thematic working groups.
Status: Achieved

T-002 Identify and appoint a Red List Authority Coordinator.
Status: Achieved

T-003 Contribute as needed to SSC Fisheries Task Force.
Status: On track

T-004 Grow membership in a strategic manner.
Status: On track



The tropical sea cucumber *Holothuria scabra*, feeding, in its natural habitat. This photo was taken in the shallow coastal seagrass beds of Coron, Palawan, Philippines
Photo: Jay R. Gorospe

T-020 Identify and appoint a focal person for taxonomy.

Status: Achieved

T-026 Identify and appoint a focal person for sustainable use.

Status: Achieved

COMMUNICATE

T-014 A review and update of Wikipedia pages on sea cucumbers.

Status: On track

T-015 Create and contribute to a conservation page on the SPC Beche-de-Mer Bulletin.

Status: On track

T-016 Create a website for the SG.

Status: On track

T-017 Notify FAO, regional fisheries management organisations, and other relevant bodies of the existence of the Sea Cucumber SG.

Status: On track

T-018 Coordinate with the other pertinent IUCN commissions, e.g. Marine Invertebrate Red List Authority (MIRLA), to engage with The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) technical working group on Threatened Species inclusion of marine invertebrate.

Status: On track

T-019 Create and maintain social media sites to raise public awareness of sea cucumber conservation.

Status: On track

T-021 Develop a communication strategy about sea cucumber conservation for managers that builds capacity for both the IUCN Red List and CITES-listed species.

Status: On track

T-025 Share updates and developments from other sea cucumber conservation initiatives, e.g. CITES, with our membership and the broader community.

Status: On track

Activities and results 2023

ASSESS

Communication

T-007 Produce a global review of (i) threats/pressures on and (ii) management measures – and their implementation – for sea cucumber conservation, by region. (KSR 5)

Manuscript published: 1

Result description: A book on the important species *Holothuria scabra* was published in 2023. Publication title: '[Global knowledge on the commercial sea cucumber *Holothuria scabra*](#)' by Hamel, J.F. et al.

Red List

T-023 Conduct an assessment of red-listed species. (KSR 5)

Number of assessments of red-listed species: 0

Result description: The current list of red-listed species was distributed in 2023 to the members for initial feedback and identification of regional gaps.

Research activities

T-024 Conduct scientific studies that increase knowledge of sea cucumber taxonomy, biodiversity, and/or conservation. (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: Co-Chair Annie Mercier is overseeing a project to sequence the genome of *Cucumaria frondosa* and *Psolus fabricii* with the Canadian BioGenome Project (Genome Canada).

T-027 Conduct population surveys to assess the status of important commercial species. (KSR 5)

Number of population surveys conducted: 1

Result description: Sea cucumber fishery surveys were completed in June 2023 in French Polynesia. Through the PROTÉGÉ program funded by the European Union, a consortium of researchers has undertaken



Thelenota ananas
Photo: Jean-Francois Hamel and Annie Mercier



Steve Purcell with Prickly Redfish (*Thelenota ananas*)
Photo: Antoine Gilbert



Chiridota marenzelleri
Photo: Mariano Martínez

the fieldwork for a fishery assessment project in the Tuamotu islands in French Polynesia. The team includes CREOCEAN, Ginger-Soproner, the Department of Marine Resources French Polynesia and Southern Cross University. The recent dive surveys in conjunction with state-of-the-art spatial mapping will determine the abundance and biomass of the sea cucumber stocks on the atoll, comprising more than 700 km². A principal outcome of the project will be recommendations to the national fishery department about a re-opening of the fishery.

ACT

Policy

T-010 Work with the UN Food and Agricultural Organization (FAO) to update the status of the world's sea cucumber fisheries. (KSR 10)

Number of fisheries status assessment updated: 1

Result description: Worked with FAO to produce a new version of the report by Purcell, S.W. *et al.* (2023). '[Commercially important sea cucumbers of the world – Second edition](#)'. *FAO Species Catalogue List Fishery Purposes* No. 6, Rev. 1. Rome, FAO.

NETWORK

Membership

T-002 Identify and appoint a Red List Authority Coordinator. (KSR 2)

Number of group internal positions appointed: 1

Result description: Veronica Toral-Granada was identified and appointed as the Red List Authority Coordinator in 2023. Additionally, we appointed Emaline Montgomery as focal person for communications.

T-020 Identify and appoint a focal person for taxonomy. (KSR 2)

Number of group internal positions appointed: 1

Result description: Maria Byrne was designated as the focal person for taxonomy.

T-026 Identify and appoint a focal person for sustainable use. (KSR 2)

Number of group internal positions appointed: 1

Result description: Steve Purcell was identified and appointed as the focal person for sustainable use.

COMMUNICATE

Communication

T-016 Create a website for the SG. (KSR 12)

Number of websites created: 1

Result description: In 2023, a page was created within the [IUCN SSC website for the group](#), as well as a logo.

T-017 Notify FAO, regional fisheries management organizations, and other relevant bodies of the existence of the Sea Cucumber SG. (KSR 12)

Number of presentations delivered at scientific events: 1

Result description: Member Chantal Conand gave a presentation at the European Conference on Echinoderms 2023 to raise awareness of sea cucumber conservation. 'Conservation of commercially exploited sea cucumbers (Holothuroidea): Recent advances and knowledge gaps'.

T-018 Coordinate with the other pertinent IUCN commissions, e.g. Marine Invertebrate Red List Authority (MIRLA), to engage with The Coral Triangle Initiative on Coral Reefs,

Fisheries and Food Security (CTI-CFF) technical working group on Threatened Species inclusion of marine invertebrate. (KSR 13)

Other pertinent IUCN commissions engaged/collaborated with CTI-CFF: 0

Result description: Co-Chairs and the group's RLA attended various organizational meetings, as the Sea Cucumber Specialist Group is part of MIRLA.

T-025 Share updates and developments from other sea cucumber conservation initiatives, e.g. CITES, with our membership and the broader community. (KSR 13)

Number of digital communication outputs shared: 1

Result description: Three new sea cucumber species were recently added to the CITES Appendix II. This information was shared with our SG to promote effective and cohesive planning for the conservation of these species.

Summary of achievements

Total number of targets 2021–2025: 27

Geographic regions: 27 Global

Actions during 2023:

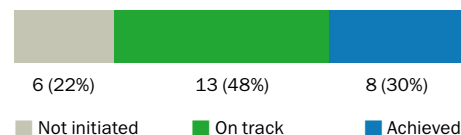
Assess: 4 (KSR 5)

Act: 1 (KSR 10)

Network: 3 (KSR 2)

Communicate: 4 (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