



Species

ISSUE 65

2024-2025 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 that were generated during 2024 (full year) and 2025 (first quarter), 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.

Example for the recommended citation:

Simaika, JP, and Bruder, A. (2025). 2024-2025 Report of the Global Freshwater Macroinvertebrate Sampling Protocols Task Force. In: IUCN SSC and Secretariat. *Species: Annual Report of the IUCN Species Survival Commission and Secretariat 2024-2025*. Gland, Switzerland: IUCN. 4 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

2024-2025 Report

IUCN SSC Global Freshwater Macroinvertebrate Sampling Protocols Task Force



CO-CHAIR
John P. Simaika
IHE Delft Institute
for Water Education,
The Netherlands;
Stellenbosch
University, Western
Cape, South Africa



CO-CHAIR
Andreas Bruder
University of Applied
Sciences and Arts of
Southern Switzerland,
Switzerland

NUMBER OF MEMBERS
15

SOCIAL MEDIA AND WEBSITES

X: @glosam_iucn

Mission statement

Invertebrates are functionally vital to aquatic ecosystems and can indirectly or directly affect human health and well-being. The IUCN SSC Task Force on Global Freshwater Macroinvertebrate Sampling Protocols (GLOSAM) aims to: (1) support the application of bioassessment based on benthic freshwater invertebrates, and (2) establish efficient bioassessment schemes through the standardisation and coordination of sampling protocols across countries.

Projected impact 2021–2025

Not stated yet.

Targets 2021–2025

ASSESS

T-002 Identify protocols used in other countries and regions and obtain copies for use in this project.
Status: On track

T-003 Establish global overview of macroinvertebrate protocols, including the history of their origin, regulatory context – constraints, traditions – and use.
Status: On track

T-004 Translate into English protocols that are written in a different language.
Status: No longer a priority

T-005 Participate in developing an agreed plan and timetable for completing the harmonisation of the protocols.
Status: Not initiated

T-006 Participate in setting criteria for assessing the suitability of sampling protocols in biodiversity assessments of freshwater ecosystems.
Status: Not initiated

T-007 Participate in developing guidelines for adjusting sampling effort in using suitable protocols for biodiversity assessments.
Status: Not initiated

T-008 Evaluate one or more sampling protocols using the agreed criteria and guidelines. Adapt the criteria and guidelines based on case studies.
Status: Not initiated

T-009 Contribute to the writing of the harmonised protocol document and a scientific manuscript describing these protocols, and exploring their contribution to regional and global assessments of freshwater biodiversity.
Status: On track

T-010 Translate the harmonised protocol in other languages when this is a requirement for its adoption and application in other countries and regions.
Status: Not initiated

NETWORK

T-001 Network within and beyond SSC and grow the membership of the Task Force.
Status: Achieved

T-011 Promote the harmonised protocol in respective countries, regions and networks.
Status: Not initiated

Activities and results 2024-2025

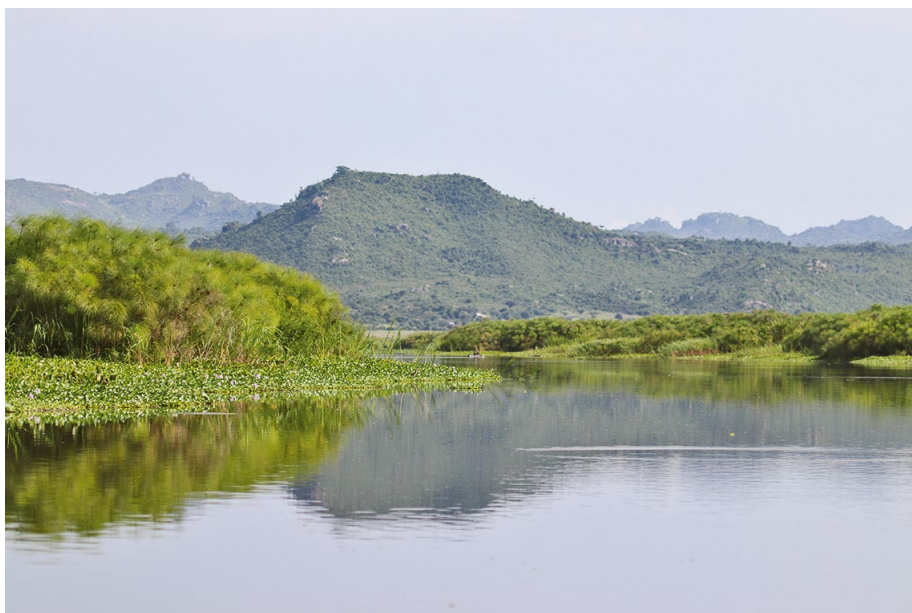
ASSESS

Communication

T-003 Establish global overview of macroinvertebrate protocols, including the history of their origin, regulatory context – constraints, traditions – and use. (KSR 5)

Report summarising global overview of macroinvertebrate protocols, including the history of their origin, regulatory context and use: 9

Result description: We published the first global review of the state of the art, gaps and challenges in the freshwater assessment programs for both the biological condition (bioassessment) and biodiversity monitoring of freshwater ecosystems using the benthic macroinvertebrate community: (1) Simaika, JP, et al. (2024). "Towards harmonized standards for freshwater biodiversity monitoring and biological



Mara River, Mara Region, Tanzania
Photo: John P. Simaika

assessment using benthic macroinvertebrates". *Science of the Total Environment*, 918, p.170360. We also published, in collaboration with the WWQA's Biodiversity workstream a policy brief and a technical paper: (2) WWQA Biodiversity and Biological Monitoring and Assessment. (2024). "Policy Brief - Bridging the global data gap by integrating biomonitoring in water quality monitoring". Published by IHE Delft Institute for Water Education on behalf of the United Nations Environment Programme-coordinated World Water Quality Alliance Biodiversity and Biological Monitoring and Assessment Workstream. ISBN: 978-90-73445-69-7; (3) WWQA Biodiversity and Biological Monitoring and Assessment. (2024). "Technical Paper – Integrating bio-assessment in the Global Sustainability Agenda". Published by IHE Delft Institute for Water Education on behalf of the United Nations Environment Programme-coordinated World Water Quality Alliance Biodiversity and Biological Monitoring and Assessment Workstream. ISBN: 978-90-73445-69-7. GLOSAM was represented at several major international conferences, where we held sessions on GLOSAM's work, as well as that of our partners (WWQA, FWBON) and session presenters. Society for Freshwater Science, Annual Meeting (2024), Philadelphia, US; (4) Penrose, D, Simaika, JP, and Stribling, J. Organisers of Special Session, S11: IUCN SSC Task Force on Global Freshwater Macroinvertebrate Sampling Protocols (GLOSAM); (5) Correa-Bedoya, A, et al. Presentation: 'A new synthesis on bioassessment protocols, their measures, metrics and quality control requirements'; (6) Stribling, J, et al. Presentation: 'Comparison of Monitoring for Assessing Biological Diversity versus Biological Condition'. Society for Freshwater Science, Annual Meeting, Philadelphia,

US; (7) Simaika, JP, et al. Presentation: 'Navigating the Realities of Freshwater Biodiversity Monitoring and Bioassessment Using Benthic Macroinvertebrates: Challenges and Opportunities'. SIL 37th International Congress on Limnology (2024), Iguazu Falls, Brazil; (8) Barbosa, L, et al. Organisers of Special Session. SS22 - Challenges and opportunities for implementation of the global freshwater biomonitoring agenda; (9) Simaika, JP. Presentation: 'Global Challenges and Opportunities: Harmonizing Freshwater Biodiversity Monitoring and Bioassessment with a Focus on Benthic Macroinvertebrates'.

Red List

T-009 Contribute to the writing of the harmonised protocol document and a scientific manuscript describing these protocols and exploring their contribution to regional and global assessments of freshwater biodiversity. (KSR 6)

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

Result description: We continued work on a scientific manuscript providing the overview of macroinvertebrate bioassessment and biodiversity assessment protocols for streams and lakes around the world. We also investigated, in a separate study, the opportunities and barriers to including biomonitoring in monitoring programs. These studies will be submitted for publication in early 2025. We are in the process of applying for funding for (a) an analysis of the dataset compiled to help us work towards a best practices guideline, and (b) hold a workshop to finalise this guideline ahead of testing it with national governments.

Research activities

T-002 Identify protocols used in other countries and regions and obtain copies for use in this project. (KSR 5)

Number of identified protocols: 1

Result description: The work identifying protocols was finished by mid-2024 and a draft publication is near-ready for submission for the first quarter of 2025.

NETWORK

Membership

T-001 Network within and beyond SSC and grow the membership of the Task Force. (KSR 5)

Number of SSC members recruited: 2

Result description: In 2024, the following new members were admitted to the task force; Ms Alejandra Correa Bedoya (Colombia); Dr Tatyana Vshivkova (Russia).

Acknowledgements

The reports of GLOSAM and author contributions were supported in part by a WWQA Small-scale-Funding Grant to IHE-Delft Institute for Water Education, the Joint Research Centre of the European Commission and the European Commission.

Summary of achievements

Total number of targets 2021–2025: 11

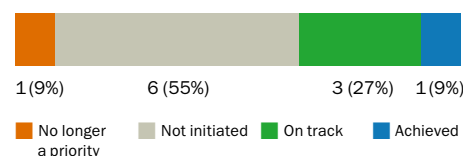
Geographic regions: 11 Global

Actions during 2024–2025:

Assess: 3 (KSR 5, 6)

Network: 1 (KSR 2)

Overall achievement 2021–2025:



Suweon Treefrog
(*Dryophytes suweonensis*)
Photo: Amael Borzee



Marsh Cinquefoil
(*Comarum palustre*)
Photo: Magnus Goransson



Phallus aureolatus
Photo: Juliano Baltazar



Eurasian Griffon (*Gyps fulvus*)
Photo: Andre Botha



Black Rhino (*Diceros bicornis*)
Photo: Save The Rhino Trust Namibia



Azores Nursery Spider
(*Pisaura acoreensis*)
Photo: Paulo A.V. Borges



Black and White Snapper
(*Macolor niger*)
Photo: David B. Snyder