



Species

ISSUE 63

2022 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 each year. Each SSC 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 Stand-alone Report

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

Title of the SSC Group

Photograph(s) of the Chair / Co-Chairs

Group information

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

Logo of the SSC 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 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.

Example for the recommended citation:

Macadam, C, and Schmidt-Kloiber, A. 2023. 2022 Report of the Mayfly, Stonefly and Caddisfly Specialist Group. In: Nassar, JM, García, L, Mendoza, L, Andrade, ND, Bezeng, S, Birkhoff, J, Bohm, M, Canteiro, C, Geschke, J, Henriques, S, Ivande, S, Mileham, K, Ramos, M, Rodríguez, A, Rodríguez, JP, Street, B, and Yerena, E (Eds.). 2022 Report of the IUCN Species Survival Commission and Secretariat. International Union for Conservation of Nature. 4 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

2022 Report

IUCN SSC Mayfly, Stonefly and Caddisfly Specialist Group



SOCIAL MEDIA AND WEBSITE

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CO-CHAIR

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RED LIST AUTHORITY

COORDINATOR

**Lyndall Pereira da
Conceicao**

Natural History
Museum, London, UK

NUMBER OF MEMBERS

18

Mission statement

The mission of our group is to promote the conservation of mayfly, stonefly and caddisfly species and their habitats around the world. Our goal is to raise awareness of these small but important insect orders and undertake Red List assessments to inform practical conservation activities.

Projected impact 2021–2025

The conservation status of mayfly, stonefly and caddisfly species and the threats to their populations will be better understood and initial plans for conservation action will be identified.

Targets 2021–2025

ASSESS

T-005 Conduct European comprehensive assessment of 1,600 Trichoptera species.
Status: Not initiated

T-006 Digitise and collate details from ca. 90,000 Ephemeroptera, Plecoptera and Trichoptera specimens contained in museum collections, with a focus on Africa.
Status: On track

T-007 Collate other datasets on African mayflies, stoneflies, and caddisflies.
Status: Not initiated

T-008 Prepare for South African comprehensive assessment of Ephemeroptera: Baetidae in 2025.
Status: Not initiated

T-009 Prepare for South African comprehensive assessment of Trichoptera: Leptoceridae.
Status: Not initiated

T-010 Collate data for sampled global assessment of 1,500 species of Ephemeroptera.
Status: Not initiated

PLAN

T-011 Undertake training in conservation planning to allow the development of conservation plans for species once they have been assessed.
Status: Not initiated

NETWORK

T-001 Continue to grow membership on a geographical basis as we undertake regional assessments.
Status: On track

T-002 Host Ephemeroptera/Plecoptera Session at the 2021 Symposium for European Freshwater Sciences (SEFS21).
Status: Achieved

T-003 Deliver session at Trichoptera conference.
Status: Achieved

T-004 Deliver session at Ephemeroptera/Plecoptera symposium.
Status: Achieved

COMMUNICATE

T-012 Develop a series of outreach seminars to raise awareness of mayfly, stonefly and caddisfly species and their conservation needs.
Status: Achieved

Status: Achieved

T-013 Develop our online presence (on social media and Specialist Group web pages).
Status: On track

Status: On track

T-014 Organise an awareness-raising campaign in connection with World Rivers Day annually.
Status: On track

Status: On track

Activities and results 2022

ASSESS

Research activities

T-006 Digitise and collate details from ca. 90,000 Ephemeroptera, Plecoptera and Trichoptera specimens contained in museum collections, with a focus on Africa. (KSR 5)

Number of specimens digitised: 85,000

Result description: Nearly 85,000 specimens have now been photographed at the Natural History Museum, UK, Africa Museum, Belgium, and Museum für Naturkunde, Germany. Around 18,000 further specimens will be completed by summer 2023. Data transcription is nearly



Larva of the mayfly *Ecdyonurus* sp.
Photo: Wolfram Graf/Astrid Schmidt-Kloiber



Adults of the rare stonefly *Isogenus nubecula*
Photo: Wolfram Graf/Astrid Schmidt-Kloiber

complete for c. 80,000 specimens. The remainder will be transcribed using a citizen science approach.

NETWORK

Synergy

T-002 Host Ephemeroptera/Plecoptera Session at the 2021 Symposium for European Freshwater Sciences (SEFS21). (KSR 1)

Number of 'in kind' partnerships established and maintained: 1

Result description: A session was held at SEFS12 in Dublin as part of the 'Freshwater Invertebrate Biodiversity – threats, assessments, knowledge needs and conservation challenges' session. This session led to the global assessment of *Palingenia longicauda*.

T-003 Deliver session at Trichoptera conference. (KSR 1)

Number of sessions for networking and partnership establishment organized: 3

Results: Sessions on Biogeography, Biodiversity and Conservation, Ecology and Assessment were held at the 17th International Symposium on Trichoptera in Lunz am See (Austria), from September 5 to 9, 2022. This included discussions on the future curation and hosting of the Trichoptera World Checklist as well as on how to acquire funding for the European red listing of caddisflies.

T-004 Deliver session at Ephemeroptera/Plecoptera symposium. (KSR 1)

Number of 'in-kind' partnerships established and maintained: 1

Result description: A session on Ecology, Biomonitoring and Conservation was held at the International Conference on Ephemeroptera and Plecoptera held

virtually from July 26 to 29, 2022. This has led to discussions on undertaking Red List assessments in the US.

COMMUNICATE

Communication

T-012 Develop a series of outreach seminars to raise awareness of mayfly, stonefly and caddisfly species and their conservation needs. (KSR 13)

Number of SSC members' presentations developed in relation to specific taxonomic groups: 6

Result description: Numerous outreach seminars focused on the mayfly, stonefly and caddisfly species and their conservation have been held. The international conferences for mayflies, stoneflies, and caddisflies held during 2022 showcased a wide variety of information about these groups and discussed their conservation. Other talks given focused on the impacts of climate change on aquatic insects and the ecosystem services provided by mayflies, stoneflies, and caddisflies.

T-013 Develop our online presence (on social media and Specialist Group web pages). (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 8

Result description: We have continued to develop our online presence, particularly on Twitter (@IUCN_riverflies) where we regularly post information about our target species. This included a blog about the digitisation work underway at the Natural History Museum, London, and the impact of climate change on aquatic insects.

T-014 Organise an awareness-raising campaign in connection with World Rivers Day annually. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 2

Result description: For World Fish Migration Day 2022 we collaborated on the development of a cartoon to highlight the importance of mayflies, stoneflies, and caddisflies. This was extended to a series of cartoons in cooperation with the World Fish Migration Foundation, all drawn by Seppo Leinonen. We also published a blog explaining the needs of invertebrates when considering fish migration.

Acknowledgements

Thanks are due to BOKU and Buglife for supporting the Co-Chairs. In addition, the Co-Chairs would like to thank the staff of the SSC for their ongoing assistance and encouragement. In particular, we would like to thank Monni Bohm and Sergio Henriques from the Global Centre for Species Survival for their support throughout the year.

Summary of achievements

Total number of targets 2021–2025: 14

Geographic regions: 9 Global, 3 Africa, 2 Europe

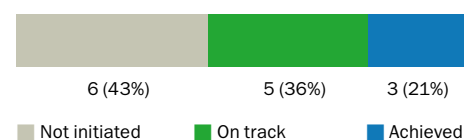
Actions during 2022:

Assess: 1 (KSR 5)

Network: 2 (KSR 1)

Communicate: 3 (KSR 13)

Overall achievement 2021–2025:



Legend: ■ Not initiated ■ On track ■ Achieved