



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:

Hughes, K, and Zimmerman, B. 2023. 2022 Report of the Freshwater Fishes 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. 6 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

IUCN SSC Freshwater Fishes Specialist Group



CO-CHAIR
Kathy Hughes
WWF-UK, Woking, UK



CO-CHAIR
Brian Zimmerman
ZSL London Zoo,
London, UK

**RED LIST AUTHORITY
COORDINATORS**
Jörg Freyhof
Leibniz-Institute of
Freshwater Ecology
and Inland Fisheries
(IGB), Berlin, Germany
Rajeev Raghavan
Conservation
Research Group,
St. Albert's College,
Kochi, India

NUMBER OF MEMBERS
132

SOCIAL MEDIA AND WEBSITE

Facebook: @FreshwaterFishSpecialistGroup
Website: <https://freshwaterfish.org/>

Mission statement

To be the global forum for people pursuing the conservation of freshwater fishes

Projected impact 2021–2025

The Freshwater Fish Specialist Group (FFSG) will: (1) lead and support the science upon which freshwater fish conservation can succeed; (2) support best practice *in situ* conservation for freshwater fishes; (3) support best practice *ex situ* conservation for freshwater fishes; (4) strengthen the link between freshwater fish conservation science and policy to support impactful policy decision making; (5) raise awareness and engagement on freshwater fishes, and (6) inspire the next generation of fish scientists and conservationists.

Targets 2021–2025

ASSESS

T-024 Assist IUCN Freshwater Biodiversity Unit in completing Red List conservation status assessments of all freshwater fishes (ca. 18,000 species). This includes supporting reassessments, assessments of newly described species, and review of Red

List 'Recommended Conservation Actions' for freshwater fish and identification.
Status: On track

T-025 Expand taxonomic, geographic and ecosystem coverage of freshwater fishes included in WWF's Living Planet Index (LPI); ensure FFSG member involvement in at least two publications on Freshwater LPI.
Status: On track

T-039 Review FFSG Steering Committee and membership opportunities to increase participation of early career members.
Status: On track

PLAN

T-026 Collate a reference list of existing *in situ* conservation practices/activities to inform best practices that achieve results.
Status: Not initiated

ACT

T-033 Review Red List 'Recommended Conservation Actions' for freshwater fish that would benefit from *ex situ* management and link with facilities to ensure each species is considered and included where possible.
Status: On track

NETWORK

T-018 Update the current FFSG membership list with confirmed profiles/contacts.
Status: Achieved

T-019 Identify and engage Regional/Thematic leads to cascade/gather information.
Status: On track

T-020 Conduct gap analysis for geographic/species group/thematic representation and work with the Steering Committee to fill critical gaps.
Status: On track

T-021 Identify existing connections across IUCN (e.g., across all Commissions) that relate to freshwater fish and engage/align with those groups.
Status: On track

T-023 Host periodic get-togethers. The aim would be to hold these in person, but realistically they will likely be via webinar due to COVID-19 and budget.
Status: On track

T-027 Identify conservation practitioners working on *in situ* conservation for freshwater fishes and invite them to become members of FFSG.
Status: On track



Red-line Torpedo Barb (*Sahyadria denisonii*) (EN), part of SHOAL's Support Our Shoal (SOS) appeal
Photo: Rajeev Raghavan

T-029 Contact zoos/aquaria/breeding centres working on *ex situ* conservation for freshwater fishes; identify contacts and add to membership.

Status: On track

T-030 Link FFSG website to websites of European Association of Zoos and Aquaria (EAZA), Association of Zoos & Aquariums (AZA), European Union of Aquarium Curators (EUAC), universities, research institutes and others working on *ex situ* conservation.

Status: Not initiated

T-037 Represent freshwater fish biodiversity on fisheries platforms (i.e., Inland Fisheries Alliance; InFish) via research and publications.

Status: On track

T-040 Seek advice from those experts in youth engagement, including SSC, Synchronicity Earth, and Bristol Zoological Society (BZS), and follow advice that will enable us to reach early career members.

Status: On track

T-042 Review and update the group's work plan.

Status: Achieved

T-043 Re-establish the Steering Committee of the Freshwater Fishes Specialist Group.

Status: Achieved

COMMUNICATE

T-022 Ensure up-to-date website facilitates knowledge sharing between members and between members and wider audiences.

Status: On track

T-028 On the FFSG website, publish quarterly (spotlight/in-focus) articles on conservation projects around the world related to freshwater fish conservation.

Status: On track

T-031 Post Regional Collection Plans for freshwater Teleost on the FFSG website (create a page on the FFSG website for *ex situ* work).

Status: Not initiated

T-032 Through a conference session at the International Aquarium Congress (IAC), create a new platform for engaging directly

with public aquaria and zoos to initiate joint proposals based on resource needs and shared objectives.

Status: Achieved

T-035 Act as a conduit between freshwater fish scientists and decision makers (i.e., Ramsar, Convention on Biological Diversity (CBD) and freshwater fish scientists and policy influencers (i.e. Conservation International, WWF, Alliance for Freshwater Life) to ensure that freshwater fishes are considered in major policy decisions (i.e. CBD, Ramsar) and that recommended conservation actions are implemented.

Status: On track

T-036 Engage with key strategic coalitions and campaigns, including Shoal's INSPIRE, the Alliance for Freshwater Life and World Fish Migration Day.

Status: On track

T-038 Update the FFSG website to become an up-to-date and flexible knowledge sharing platform.

Status: Not initiated

T-041 Support Freshwater Conservation Committee communications highlighting freshwater species at risk and threats to freshwater systems.

Status: Achieved

Activities and results 2022

ASSESS

Red List

T-024 Assist IUCN Freshwater Biodiversity Unit in completing Red List conservation status assessments of all freshwater fishes (ca. 18,000 species). This includes supporting reassessments, assessments of newly described species, and review of Red List 'Recommended Conservation Actions' for freshwater fish and identification. (KSR 6)

Number of global Red List reassessments completed: 1,320

Result description: Of the 2,000 plus freshwater fish species assessments published in 2022, around 1,320 were signed off by FFSG in 2022. Another 290 freshwater fish

species assessments were submitted in 2022 for publication in 2023, with the aid of FFSG.

Research activities

T-025 Expand taxonomic, geographic and ecosystem coverage of freshwater fishes included in WWF's Living Planet Index (LPI); ensure FFSG member involvement in at least two publications on Freshwater LPI. (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 0

Result description: Previous research on a first gap analysis of freshwater fish data in the Living Planet Database, specifically looking at taxonomic and geographical representation, Red List status and life history data/body size etc., is currently being written up as a short communication for publication. Unfortunately, we were unable to secure a PhD student to take this work forward starting in 2023, and we will now aim to find additional capacity to carry out this work with our collaborators at the Zoological Society of London.

ACT

Conservation actions

T-033 Review Red List 'Recommended Conservation Actions' for freshwater fish that would benefit from *ex situ* management and link with facilities to ensure each species is considered and included where possible. (KSR 10)

Number of threatened species benefiting from *ex situ* conservation action: 0

Result description: This work has been initiated, starting with the FW teleost EAZA regional collection plan. This will be an ongoing activity.

NETWORK

Membership

T-018 Update current FFSG membership list with confirmed profiles/contacts. (KSR 2)

Number of SSC members recruited: 142

Result description: We have created an updated member list from both the IUCN

Portal and older lists and have created a membership application process and a membership google-group to facilitate communications with members.

T-019 Identify and engage Regional/Thematic leads to cascade/gather information. (KSR 2)

Active steering committee taking ownership of the task: Ongoing

Result description: While we identified Regional/Thematic leads within the group and have engaged with the FFSG Steering Committee on this to seek agreement for the appointment, it is still not working as planned yet.

T-020 Conduct gap analysis for geographic/species group/thematic representation and work with Steering Committee to fill critical gaps. (KSR 2)

Number of SSC members recruited: 2

Result description: We have taken steps to increase the capacity of FFSG: (1) we have developed a membership application process and appointed Monika Bohm as Membership Coordinator; (2) we have almost recruited a 50% PT FFSG Communications and Advocacy Role (other 50% to support InFish); (3) we have secured and funded URL for FFSG website and collated materials for FFSG website and had some support from Otter SG volunteers to create website.

T-023 Host periodic get-togethers. The aim would be to have these in person, but realistically these will likely be via webinar due to COVID-19 and budget. (KSR 2)

Positive feedback from membership: Ongoing

Result description: We are not able to hold face-to-face get-togethers for the FFSG yet, as a Steering Committee or as a whole membership. It is unlikely we will be able to bring the membership together ever due to a lack of funding and capacity. Instead, we take *ad-hoc* opportunities through other meetings. There were two steering committee meetings in 2022 – in February and November. In addition, opportune meetings of the Co-Chairs and members were held when possible.

T-027 Identify conservation practitioners working on in situ conservation for freshwater fishes and invite them to become members of FFSG. (KSR 2)

Number of SSC members recruited: 30

Result description: We have recruited several new conservation practitioner members from around the world.

T-029 Contact zoos/aquaria/breeding centres working on ex situ conservation for freshwater fishes; identify contacts and add to membership. (KSR 3)

Increase in members from the zoo/aquarium community that are working in *ex situ* and *in situ* freshwater fish conservation: 8

Result description: Several new members from the aquarium community have been recruited.

T-042 Review and update the group's workplan. (KSR 2)

Initial workplan has been reviewed and established: Achieved

Result description: We have reviewed and updated our Work Plan over the course of 2021 and 2022.

T-043 Re-establish Steering Committee of the Freshwater Fishes Specialist Group. (KSR 2)

Steering committee has been re-established: Achieved

Result description: We have now reviewed and re-engaged our Steering Committee, including bringing on new members to the SC.

Synergy

T-021 Identify existing connections across IUCN (e.g., across all Commissions) that relate to freshwater fish and engage/align with those groups. (KSR 2)

Alignment with related SSC groups of relevance: Ongoing

Result description: FFSG members are active members within the freshwater-relevant work of the SSC. Members of the FFSG SC actively engage in the SSC FW Group led by Monika Bohm and the Freshwater Conservation Committee.

T-037 Represent freshwater fish biodiversity on fisheries platforms (i.e. Inland Fisheries Alliance; InFish) via research and publications. (KSR 4)

Freshwater Fish biodiversity recognised by freshwater fisheries representatives: 2

Result description: The FFSG appointed Professor Ian Cowx as FFSG Fisheries Advisor. Ian and other FFSG members sit on InFish, and the IFA.

T-040 Seek advice from those experts in youth engagement, including SSC, Synchronicity Earth and Bristol Zoological Society (BZS), and follow advice that will enable us to reach early career members. (KSR 2)

Advice from expert in youth engagement to increase representation within FFSG: Ongoing

Result description: The FFSG has appointed Felix Feider as the FFSG Youth officer and plans to implement work he is doing elsewhere in SSC to engage youth and early career professionals. We have also improved the FFSG member application and management approaches to support new members. However, we have to do more work to achieve this target.

**COMMUNICATE
Communication**

T-022 Ensure up-to-date website facilitates knowledge sharing between members, and between members and wider audiences. (KSR 12)

Platform for communication of our activities: Ongoing

Result description: Some progress has been made: (1) we secured and funded the URL for the website; (2) we created information and material such as images and documents collated for the website, and (3) we partially secured volunteer support and website creation is now taking place. We hope that the basic website will be completed to use as a platform in 2023. As this all relies on volunteers it has been difficult to meet the original timetable that we were aiming for.

T-028 On the FFSG website, publish quarterly (spotlight/in-focus) articles on conservation projects around the world related to freshwater fish conservation. (KSR 13)

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

Result description: This activity will be an ongoing activity. The FFSG have supported several external facing reports to showcase freshwater fishes, including SSC's Freshwater Conservation Committee's Fantastic Freshwater and Shoal's New Species 2022 reports Chairs of FFSG and SC have drafted FFSG Forty Fishes in Freefall but have lacked the capacity to push it through to publication –yet; FFSG is supporting WWF USAID Mekong Forgotten Fishes report and WWF Africa's Forgotten Fishes report. However, these are not yet displayed on the FFSG website which is still under construction.

T-035 Act as a conduit between freshwater fish scientists and decision makers (i.e. Ramsar, Convention on Biological Diversity [CBD]), and freshwater fish scientists and policy influencers (i.e. Conservation International, WWF, Alliance for Freshwater Life) to ensure that freshwater fishes are considered in major policy decisions (i.e. CBD, Ramsar) and that recommended conservation actions are implemented. (KSR 12)

Gollum Snakehead (*Aenigmachanna gollum*),
discovered in 2019, Western Ghats
Photo: Ralf Britz / Naturhistorisches Museum Bern



Number of communications and meetings attended: 3

Result description: The FFSG Members, Chairs and SC fed into the narratives for the CBD CoP, Ramsar CoP and UN Water Conference.

T-036 Engage with key strategic coalitions and campaigns, including Shoal's INSPIRE, the Alliance for Freshwater Life and World Fish Migration Day. (KSR 12)

Participation in partnership coalitions: 3

Result description: The FFSG is an active member of the Inspire (FINS) initiative led by Shoal. Also, via its membership, FFSG has representation in Inland Fisheries Alliance, Alliance for Freshwater Life and other FW SSC SGs.

T-041 Support Freshwater Conservation Committee communications highlighting freshwater species at risk and threats to freshwater systems. (KSR 12)

Contribute to and disseminate communications from Freshwater Conservation Committee's Species at risk report (in partnership with Shoal) within and outside SSC: Achieved

Result description: The Fantastic Freshwater report was published in May 2022. The FFSG contributed two species to the report: the Mekong Giant Catfish (*Pangasianodon gigas*) and *Nothobranchius fuscotaeniatus*. Both species will receive continued coverage in social media via Shoal, FCC and Global Center for Species Survival throughout the year.

Scientific meetings

T-032 Through a conference session at the International Aquarium Congress (IAC), create a new platform for engaging directly with public aquaria and zoos to initiate joint proposals based on resource needs and shared objectives. (KSR 12)

Number of presentations delivered in scientific events: 5

Result description: A whole session on FW conservation was held at the IAC (September 2022 in Portugal), led by Brian Zimmerman.

Acknowledgements

The FFSG would like to acknowledge the support of Shoal, and the FFSG Steering Committee – Chairs and Advisers – for their significant support towards achieving our objectives during the last year. In addition, we wish to specifically acknowledge the support of Monni Bohm for her help with reporting, Lesley Wright for helping to set up our new website, and Jason Motely and Caitlin Daly for their support creating the FFSG newsletter.

Summary of achievements

Total number of targets 2021–2025: 25

Geographic regions: 23 Global, 2 Europe

Actions during 2022:

Assess: 2 (KSR 5, 6)

Act: 1 (KSR 10)

Network: 11 (KSR 2, 3, 4)

Communicate: 6 (KSR 12, 13)

Overall achievement 2021–2025:

