



# Species

ISSUE 63

## 2022 Report of the IUCN Species Survival Commission and Secretariat



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## 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.

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### 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.

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### 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.

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## 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.

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### Title of the SSC Group

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### Photograph(s) of the Chair / Co-Chairs

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### 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.

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### Logo of the SSC Group

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### Mission statement

Includes the mission of the group.

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### 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.

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### 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).

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### 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).

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### Acknowledgements

Includes the acknowledgements to funding agencies, partners, and persons who contributed to the progress of the targets of the group.

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### 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.

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### Example for the recommended citation:

Contreras MacBeath, T, and Harrison, I. 2023. 2022 Report of the Freshwater Conservation Committee. 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. 8 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

# IUCN SSC Freshwater Conservation Committee



**SOCIAL MEDIA AND WEBSITE**  
Twitter: @FW\_Conservation



**CO-CHAIR**

**Topiltzin Contreras  
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**CO-CHAIR**

**Ian Harrison**

Conservation  
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Arlington, Virginia, US

**RED LIST AUTHORITY**

**COORDINATOR**

**Jörg Freyhof**

Museum für  
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Germany

**NUMBER OF MEMBERS**

15

## Mission statement

To raise the profile of freshwater biodiversity by: (1) coordinating freshwater species conservation activities through the SSC, highlighting emerging patterns and ensuring that increasing attention is given to issues concerning freshwater biodiversity conservation; (2) making freshwater recommendations to the SSC based on the work of the Freshwater Conservation Committee, and ensuring that freshwater species conservation issues are well represented within the SSC and the wider IUCN; (3) assisting the SSC by providing authority and credibility in its engagement with policy processes and major freshwater related events.

## Projected impact 2021–2025

Through contributions to freshwater Red List assessments and subsequent analyses – and via linkage with freshwater-relevant Specialist Groups – the patterns of global threats to freshwater species will have been defined and the priorities for conservation (geographically and taxonomically) identified; communication, fundraising and action to conserve those species is underway; implement guidance for the Global Biodiversity Framework (GBF) such that freshwater habitats and species are included in National Biodiversity Strategies and Action Plans (NBSAPs).

## Targets 2021–2025

### ASSESS

**T-006** Identify how/where Red List assessment data are being used by Specialist Groups.

Status: On track

### PLAN

**T-008** Review habitats, taxa and possibly geographical regions which are under-represented, set them as priorities, and address these gaps.

Status: On track

**T-009** Identify new projects where the Freshwater Conservation Committee can either directly engage with, or otherwise promote, freshwater conservation.

Status: On track

### ACT

**T-007** Identify priorities for the development of new freshwater action plans, with a view to developing conservation action.

Status: Not initiated

**T-010** Develop a programme of conservation evidence to show where there has been freshwater conservation success, and why.

Status: Not initiated

**T-013** Promote freshwater conservation initiatives.

Status: On track

## NETWORK

**T-003** Broaden the membership of the Freshwater Conservation Committee to include younger members familiar with new social media technologies.

Status: On track

**T-004** Identify and work with IUCN Commission Specialist Groups, Task Forces and Committees in Commissions to share information on mutual objectives in freshwater, and ensure these objectives are well linked and build off each other.

Status: On track

**T-005** Promote freshwater outputs from SSC.

Status: On track

**T-011** Coordinate with key institutions and initiatives in identifying priorities for action, project development, fundraising, technical communications, etc.

Status: On track

**T-012** Ensure freshwater ecosystems are adequately represented in international, national and regional policy.

Status: On track

## COMMUNICATE

**T-001** Develop and implement a communication strategy about the importance of freshwater biodiversity globally.

Status: On track



Javan Torrent Frog (*Wijayarana masonii*),  
Gunung Gede Pangrango National Park, Indonesia  
Photo: Topiltzin Contreras

**T-002** Communicate the importance of freshwater biodiversity globally to different audiences.

Status: On track

## Activities and results 2022

### ASSESS

#### Red List

**T-006** Identify how/where Red List assessment data are being used by Specialist Groups. (KSR 6)

Number of technical documents provided to support Red List assessments/reassessments: 0

Result description: We are currently analysing available Red List and SSC Data information to identify conservation priorities and whether these are being pursued by SSC groups as targets. This work is being spearheaded by the Global Center for Species Survival across taxonomic and systems remits, and this initial analysis should conclude in early 2023. However, outputs from the Global Freshwater Fauna Assessment are likely to dive deeper into some of these questions as well over the course of 2023 and early 2024. Furthermore, through our SSC Internal Grant funded project 'Contribution to the conservation of freshwater endemics in the

Socotra Archipelago UNESCO Natural World Heritage Site (Yemen)', FCC member Kay van Damme will provide documentation to support Red List assessments and reassessments for at least three key aquatic endemics.

### PLAN

#### Planning

**T-008** Review habitats, taxa and possibly geographical regions which are under-represented, set them as priorities and address these gaps. (KSR 8)

Number of Assess to Plan (A2P) species assessments completed: 0

Result description: Based on the outcomes from Target 006 and conservation priorities based on the outputs from the Global Freshwater Fauna assessment, we will identify new areas for potential A2P planning processes. This work has not yet begun but will likely be part of the many outputs envisaged from the Global Freshwater Fauna assessment. Our SSC Internal Grant funded project on 'Contribution to the conservation of freshwater endemics in the Socotra Archipelago UNESCO Natural World Heritage Site (Yemen)', led by FCC member Kay van Damme, will also contribute to this target, in the context of Socotra.

**T-009** Identify new projects where the Freshwater Conservation Committee can either directly engage with, or otherwise promote, freshwater conservation. (KSR 8)

Number of conservation plans/strategies developed: 0

Result description: FCC members Ian Harrison and Felix Feider have been following up on IUCN Resolution 134 on Protecting the Lower Congo River from large hydroelectric dam developments, which also calls for the formation of an IUCN inter-commission Task Force on dams. Through our SSC Internal Grant funded project on 'Contribution to the conservation of freshwater endemics in the Socotra Archipelago UNESCO Natural World Heritage Site (Yemen)', led by Kay van Damme, we envision the development of conservation strategies for several freshwater endemic species of Socotra. The project started in late 2022 and so far has focused on data collection for several Socotra endemic species as well as engagement and outreach events to promote Socotra biodiversity. Updates of the project so far have been posted via the Global Center for Species Survival blog: "Socotra Archipelago: Treasure Trove of Life" (<https://www.indianapoliszoo.com/gcss/socotra-archipelago/>). In May 2022, we published our 'Fantastic Freshwater'



The little butterfly of the swamp (*Lepidopterella palustris*), a species of freshwater fungus included in the Fantastic Freshwater report  
 Photo: Carol Shearer and Huzefa Raja

report, in collaboration with several Specialist Groups and Red List Authorities and continue to advocate for the 50 freshwater species highlighted within the report, especially in terms of securing funding support. Through FCC member Monika Bohm we are also linking with members of the soon-to-come Aquatic Fungi Specialist Group who are embarking on a multi-year European project (FUNACTION) to shine a light on aquatic fungal biodiversity and develop knowledge and strategies to inform conservation priorities and measures for these previously overlooked organisms. The outcome of this multi-year funding proposal was not yet known in 2022, but if successful, this will provide a first step to promoting freshwater conservation via these important and overlooked organisms. We have been involved in discussions on the recognition of Shedd Aquarium as a Freshwater Center for Species Survival, and that will create significant new opportunities for the FCC to engage in freshwater conservation projects in Mexico, Central America, and the Caribbean.

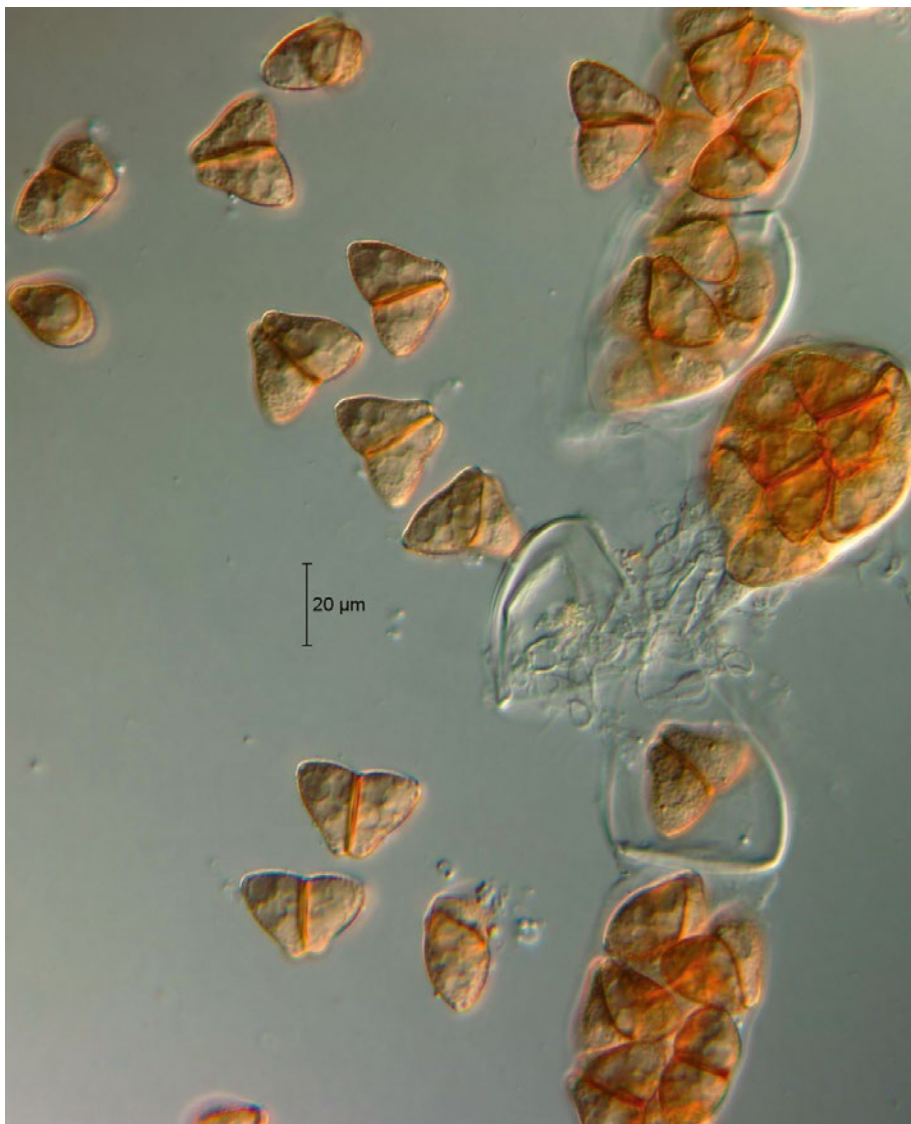
**ACT**

**Conservation actions**

**T-007 Identify priorities for the development of new freshwater action plans, with a view to developing conservation action. (KSR 10)**

Number of technical documents provided to support conservation actions: 0

Result description: Based on the outcomes from target 006 “Identify how/where Red List assessment data are being used by Specialist Groups” and conservation priorities based on the outputs from the Global Freshwater Fauna assessment, we will identify new freshwater action plans, ideally area-based ones across different taxon groups. This work has not yet begun. Members of the FCC are working with other partners on how the Kunming-Montreal Global Biodiversity Framework will be applied to the restoration and conservation of freshwater ecosystems, and this will help direct priorities for the implementation of action plans. Through our FCC member



Monika Bohm, we are also linking with members of the soon-to-come Aquatic Fungi Specialist Group who are embarking on a multi-year European project (FUNACTION) to shine a light on aquatic fungal biodiversity and develop knowledge and strategies to inform conservation priorities and measures for these previously overlooked organisms. Similarly, our SSC Internal Grant funded project on “Contribution to the conservation of freshwater endemics in the Socotra Archipelago UNESCO Natural World Heritage Site (Yemen)”, led by FCC member Kay van Damme, will identify priorities for the development of new freshwater action plans for Socotra.

**T-013 Promote freshwater conservation initiatives.** (KSR 10)

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

Result description: The greatest part of our work on promoting initiatives has been through the dialogues we have started to develop across SSC groups with an interest in freshwater. Through these dialogues, we are looking for priorities for action, and for areas of potential collaboration across partners to strengthen the capacity to do work. In addition to this, with the collaboration of our partners, we have identified and are working on several conservation initiatives. These are listed here: 1) Contribution to the conservation of freshwater endemics in the Socotra Archipelago UNESCO Natural World Heritage Site (Yemen), led by Dr Kay Van Damme. This project received an SSC internal grant and is ongoing. The focus is at least three species of endemics; 2) Conservation of the Dark-edged Splitfin (*Girardinichthys multiradiatus*) in Zempoala Lagoons National Park, Mexico, led by Topiltzin Contreras. Promoted by Shoal, and funded by the Porini Foundation as a NTF (ongoing); 3) Endangered Freshwater Fish of the Rio Sonoyta: Conservation and Education in the Southwest-US and Northwest-Mexico Borderlands. Led by Nélida Barajas Acosta and financed by the

US Southwest Border Resource Protection Program (ongoing); 4) Conservation of the Rio Concepcion Topminnow (*Poeciliopsis jackshultzi*), a microendemic desert fish, led by Dr Mariana Mateos Texas A&M University and funded by MBZ (ongoing); 5) Development of a conservation strategy for Mexican goodeids, a collaboration by the University of Michoacán, the University of Morelos, Chester Zoo, Shoal, Re:Wild and ABQ Biopark (ongoing). Because all of these are ongoing, we have not yet reported on the number of threatened species benefiting from these projects.

**NETWORK  
Membership**

**T-003 Broaden the membership of the Freshwater Conservation Committee to include younger members familiar with new social media technologies.** (KSR 2)

Number of SSC members recruited: 0

Result description: We have not made much progress from last year, but we are continuing discussions with Felix Feider (Synchronicity Earth) who works closely with various global youth movements for biodiversity. As noted last year, Felix will help us recruit youth members for the Freshwater Conservation Committee. He is already working closely with the WCPA Freshwater Specialist Group on a similar plan. He and his colleagues in the youth networks have drafted a strategy for youth engagement, which we can adopt in the Freshwater Conservation Committee.

**Synergy**

**T-004 Identify and work with IUCN Commission Specialist Groups, Task Forces, and Committees in Commissions to share information on mutual objectives in freshwater, and ensure these objectives are well linked and build off each other.** (KSR 3)

Number of collaborations: 2

Result description: We liaised with freshwater-relevant Specialist Groups across the SSC across the taxonomic spectrum. We convened a meeting with the Specialist Groups to discuss the report format, the

species covered and the writing process. We regularly engaged with the Specialist Groups to elicit species nominations as well as information for the selected species to be highlighted. Overall, the report was produced in collaboration with more than 70 experts from 21 IUCN SSC Specialist Groups and Red List Authorities (<https://shoalconservation.org/fantastic-freshwater-report-released/>) and sparked similar efforts within Specialist Groups, such as the Freshwater Fish SG’s report in preparation on 40 species in free-fall. We also started engaging regularly with freshwater-relevant Specialist Groups, Task Forces and Standalone RLAs to improve our networking and communications across the SSC. We held the first two meetings inviting all freshwater-relevant SGs on November 21st and will engage in our second meeting in early 2023, with the view of discussing across-SSC outputs from the upcoming Global Freshwater Fauna Assessment. Working closely with Catherine Sayer from the IUCN Biodiversity Assessment and Knowledge Team, the FCC is coordinating the various outputs that we would want to achieve across the SSC considering this newly available dataset. Ian Harrison and Felix Feider, FCC members, have been following up on IUCN Resolution 134 on Protecting the Lower Congo River from large hydroelectric dam developments, which also calls for the formation of an IUCN Intercommission Task Force on dams. Topis Contreras MacBeath and Ian Harrison also joined a cross-cutting SSC meeting on developing a Task Force to reconcile fisheries and conservation, as stipulated in IUCN 2020 Resolution 107. We have also been involved in early discussions on the possibility of Task Forces on ‘Brackish Inland waters’ and ‘Pools and Springs’.

**T-005 Promote freshwater outputs from SSC.** (KSR 3)

Freshwater issues considered: 50%

Result description: We are working with Catherine Sayer from the IUCN Biodiversity Assessment and Knowledge Team in planning outputs from the Global Freshwater



Merganser (*Mergus merganser*) with chicks,  
Hulunbuir, China  
Photo: Topiltzin Contreras

Fauna Assessment. Members of the FCC also co-prepared a presentation for the World Biodiversity Forum on 'Integrated Solutions to Freshwater Conservation' (<https://wbf2022.abstractserver.com/program/#/details/presentations/52>), highlighting some of the objectives of the Commission.

**T-011 Coordinate with key institutions and initiatives in identifying priorities for action, project development, fundraising, technical communications, etc.** (KSR 3)

Number of collaborations: 2

Result description: An important part of our work here has been through our input to recommendations for global policy priorities, such as those given to the Kunming-Montreal Global Biodiversity Framework, where FCC members were active in promoting the importance of freshwater in future restoration and protection agendas. We continue to liaise extremely closely with the Global Center for Species Survival, via Monni Bohm, working on several projects and holding bi-monthly meetings. Similarly, we work closely with Shoal Conservation on projects such as their Search for Lost Species project and their Fantastic Freshwater report. We have also worked with Shedd Aquarium on the proposal for a new Center for Species Survival based at the aquarium and focused entirely on freshwater, initially focusing on freshwater mussels of Central America.

**T-012 Ensure freshwater ecosystems are adequately represented in international, national and regional policy.** (KSR 4)

Number of governments supported to develop species conservation policies: 0  
Result description: The FCC contributed greatly to freshwater being recognized in the 2030 targets, including through input into documents prepared in collaboration with our partners for the United Nations Convention on Biological Diversity, COP-15, at Kunming and Montreal, such as A Pathway for Inland Waters in the 30 x 30 Target, Building knowledge and capacity for a radical increase in representation and effective management of inland waters in protected and conserved areas, and The Watershed Moment for the Convention on Biological Diversity where we extend our gratitude to governments for explicitly including and representing inland waters, indigenous peoples and local communities in the final text of the Kunming-Montreal Global Biodiversity Framework. Through our SSC Internal Grant funded project on 'Contribution to the conservation of freshwater endemics in the Socotra Archipelago UNESCO Natural World Heritage Site (Yemen)', we hope to support the Yemen government to develop representative policy including freshwater endemics.

**COMMUNICATE  
Communication**

**T-001 Develop and implement a communication strategy about the importance of freshwater biodiversity globally.** (KSR 13)

A communication Strategy for Freshwater Species Developed: 0

Result description: While we have not developed a communication strategy as such, we are nearing completion of the global freshwater faunal assessment, which will give us an opportunity to develop science papers, policy briefs, and other outreach to promote the outputs and outcomes of that work. We are doing this in collaboration with the IUCN Freshwater Assessment and Knowledge Team, several Freshwater Specialists Groups, and members of our partner organizations. With our partners from Shoal/Re:Wild we have collaborated in developing the 'Freshwater Inspire Network (FIN)' which is dedicated to sharing knowledge and ideas about elevating the communications surrounding freshwater species and habitats, with the aim of inspiring people beyond our immediate network.

**T-002 Communicate the importance of freshwater biodiversity globally to different audiences.** (KSR 13)

Number of SSC members' presentations developed in relation to specific taxonomic groups: 10





*Ambystoma granulosum*, one of the species included in the Fantastic Freshwater report  
Photo: Alejandro Calzada

Result description: The FCC members presented the work of the IUCN SSC Freshwater Conservation Committee at several events: 1) The Work of the IUCN/SSC Freshwater Conservation Committee, at the Trinational Symposium of the Sonoran Desert Fishes. Arizona, USA; 2) 'La conservación de peces en Mesoamérica', at the Congreso Mesoamericano de la Sociedad Mesoamericana de Biología y Conservación, Cuernavaca, Mexico. Additionally, FCC members contributed to several publications throughout the year that highlighted FCC work and the importance of conserving freshwater biodiversity: 1) Contreras-MacBeath, T, et al. (2022). 'Freshwater Fishes of Central America: Distribution, Assessment, and Major Threats'. *Diversity*, 14, x. <https://doi.org/10.3390/d14100793>; 2) Contreras-MacBeath, T, Mejia, H, and Rivas, M. (2022). 'A theory of change to reverse the current Mexican freshwater fish extinction crisis'. *Front. Environ. Sci. Sec. Freshwater Science*. doi: 10.3389/fenvs.2022.998246; 3) Edmondstone, MRJ, et al.(eds.) (2022). 'Fantastic Freshwater: 50 landmark species for conservation'. SHOAL, Indianapolis Zoo Global Center for Species Survival, IUCN Species Survival Commission, Freshwater Conservation Committee, London. 80 pp. We also published several blog posts highlighting FCC and freshwater SG work. Two

were timed to coincide with World Wetlands Day: 1) 'World Wetlands Day: Bringing Awareness to Wetlands and all the Amazing Things They Do' (<https://www.indianapoliszoo.com/gcss/world-wetlands-day/>); 2) 'Wetland action to benefit both people and nature' (<https://www.iucn.org/news/species-survival-commission/202202/wetland-action-benefit-both-people-and-nature>). Another blog post was focused on the FCC project in Socotra, coordinated by FCC member Kay van Damme: 'SOCOTRA ARCHIPELAGO: Treasure Trove of Life' (<https://www.indianapoliszoo.com/gcss/socotra-archipelago/>). More blog posts about the Socotra work are expected in 2023. Finally, we liaised with the Sturgeon Specialist Group to produce a blog post for the IUCN Red List update in July: 'Sturgeons On The Brink: Ancient Fish Threatened with Extinction' (<https://www.indianapoliszoo.com/gcss/sturgeons-on-the-brink/>). We also supported aquatic fungi researchers in Europe, via the FUNACTION project, by providing a press announcement of the project's successful funding: <https://www.indianapoliszoo.com/gcss/learn-and-discover/newsroom/>. Similar press announcements based on an overall blueprint were run by the various organizations involved in the project.

## Summary of achievements

Total number of targets 2021–2025: 13

Geographic regions: 13 Global

Actions during 2022:

Assess: 1 (KSR 6)

Plan: 2 (KSR 8)

Act: 2 (KSR 10)

Network: 5 (KSR 2, 3, 4)

Communicate: 1 (KSR 13)

Overall achievement 2021–2025:

