IUCN SSC Species Survival Commission

Species

ISSUE 64

2023 Report of the IUCN Species Survival Commission and Secretariat

Stand-alone report
CSS Marine: Georgia Aquarium

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 standalone 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 Authory 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:
Hoopes, L. and Herman, K. 2024. 2023 Report of the CSS Marine: Georgia Aquarium. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat.* Gland, Switzerland: IUCN. 6 pp.

2023 Report

CCS Marine: Georgia Aquarium

DIRECTOR
Lisa Hoopes
Georgia Aquarium, US

SPECIES SURVIVAL OFFICER
Katelyn Herman
Georgia Aquarium, US

Mission statement

The mission of the Center for Species Survival at Georgia Aquarium (GAI) is to serve as a hub that facilitates species conservation efforts, focused on marine ecosystems, using the One Plan approach. The Center encompasses all research and conservation activities conducted by the aquarium. Georgia Aquarium has a history of strength in marine research, especially for elasmobranchs (sharks and rays) and marine mammals. The establishment of a CSS at the Aquarium will strengthen efforts to translate this research into tangible species conservation outcomes. Staff at the Aquarium were intimately involved in the Global Shark Trends Project, which recently reassessed the Red List status of all extant sharks and rays. In light of this important work and the focus of other centers on Red List Assessments, an early focus will be more on conservation planning rather than assessments. The Aquarium will also focus on the Act part of the Assess-Plan-Act cycle; it is a founding partner in the StAR Project, which seeks to restore energetic populations of the Zebra Shark (*Stegostoma tigrinum*) in Raja Ampat, Indonesia, as a model for *ex situ* breeding of imperilled elasmobranchs.

Projected impact 2021-2025

Not stated yet.

Targets 2021-2025

PLAN

T-001 Facilitate the development of a conservation plan for Rice's Whale (*Balaenoptera ricei*).
Status: No longer a priority

T-002 Facilitate the development of a conservation plan for Carolina Hammerhead Sharks (*Sphyrna gilberti*).
Status: Achieved

T-003 Co-host workshop on *ex situ* breeding as a conservation tool for Bowmouth Guitarfish (*Rhina ancylostoma*).
Status: Achieved

T-004 Co-host workshop to develop the governance of ReShark, refine the mission, and identify candidate species for translocation.
Status: Achieved

T-026 Begin facilitating the development of a global whale shark conservation plan.
Status: Not initiated

ACT

T-005 Continue to lead translocation efforts with Zebra Sharks (*S. tigrinum*) in Indonesia through StAR Project, including a site visit in 2023.
Status: On track

T-006 Acoustic and satellite tagging efforts with Whale Sharks in Taiwan and Australia to understand the movement and connectivity of understudied populations.
Status: On track

T-007 Develop research plan to expand research partnership with elasmobranchs in Taiwan.
Status: On track

T-008 Acoustic and satellite tagging of Sand Tiger Sharks in US waters to identify the southern range of this species.
Status: On track

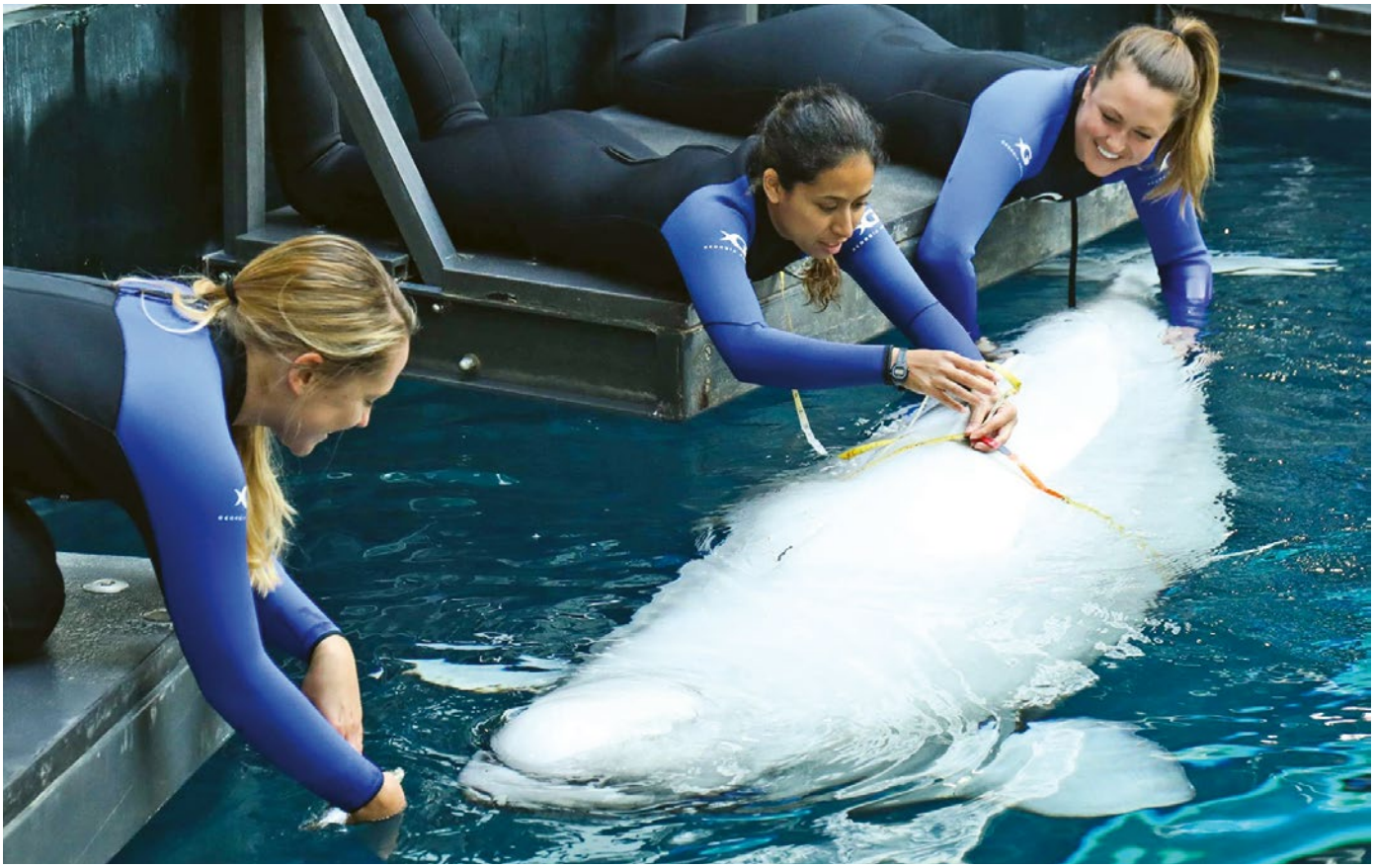
T-009 Support tagging and genetics efforts for Data Deficient Lesser Devil Rays in the Gulf of Mexico.
Status: On track

T-010 Deploy BRUVs and satellite tags on sharks utilising Pedro Bank in Jamaica to provide data for regional MPA development.
Status: On track

T-011 Designate two new hope spots with partner Mission Blue (St. Helena and Prince William Sound, Alaska).
Status: Achieved

T-012 Support satellite tagging efforts with Silky Sharks (*Carcharhinus falciformis*) in Belize.
Status: Achieved

T-013 Test and refine suction cup accelerometer tag package design for wild manta rays using aquarium animals.
Status: On track



Three trainers handle a Beluga (*Delphinapterus leucas*) whale at Georgia Aquarium
Photo: Georgia Aquarium

T-014 Support metabolic studies with aquarium Beluga Whales for the development of better bioenergetics estimates for critical wild populations.
Status: On track

T-015 Develop policy position for GAI on North Atlantic right whales.
Status: No longer a priority

T-016 Field efforts to understand movement and health of Florida Manatees in Georgia waters.
Status: On track

T-017 Support post-doctoral fellow in Taiwan to increase capacity for shark research.
Status: On track

T-018 Continue to support the Florida Reef Tract Rescue Project by holding wild corals at the aquarium until they can be released.
Status: On track

NETWORK

T-019 Discuss aquarium's CSS plan with leads from the SSC, MCC, WCPA, CPSG, CTSG, CSG, and SSG.
Status: On track

T-020 Conservation planning and facilitator training and mentorship for Katelyn Herman with CPSG.
Status: On track

T-021 Population viability analysis training and mentorship for new population modeler with CPSG.
Status: Not initiated

T-022 Attend GCSS meeting in Indianapolis, IN.
Status: Achieved

T-023 Hire two more staff to support workshop planning and project coordination efforts for the CSS.
Status: Achieved

COMMUNICATE

T-024 Develop a landing page for CSS activities on the aquarium's website.
Status: On track

T-025 Work with RtR to highlight StAR project milestone successes.
Status: Not initiated

Activities and results 2023

PLAN

Planning

T-001 Facilitate the development of a conservation plan for Rice's Whale (*B. ricei*). (KSR 8)

Number of species conservation plans/ strategies updated: 0

Result description: The CSS Marine: Georgia Aquarium team met in the third quarter of 2023 and decided that instead of a conservation plan, efforts were better focused on outreach, therefore, this target is no longer a priority.

T-002 Facilitate the development of a conservation plan for Carolina Hammerhead Sharks (*S. gilberti*). (KSR 8)

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

Result description: This team met in October of 2023 and identified research data gaps needed for the Red List assessment.

T-003 Co-host workshop on *ex situ* breeding as a conservation tool for Bowmouth Guitarfish (*R. ancylostoma*). (KSR 8)

Number of other plans (different from Conservation Action Plans) developed: 0

Result description: This meeting happened in November of 2023. Data gaps needed for conservation action were established at this meeting and a final report will be generated and distributed in 2024.

T-004 Co-host workshop to develop the governance of ReShark, refine the mission, and identify candidate species for translocation. (KSR 9)

Establishing a governance for ReShark: 100%

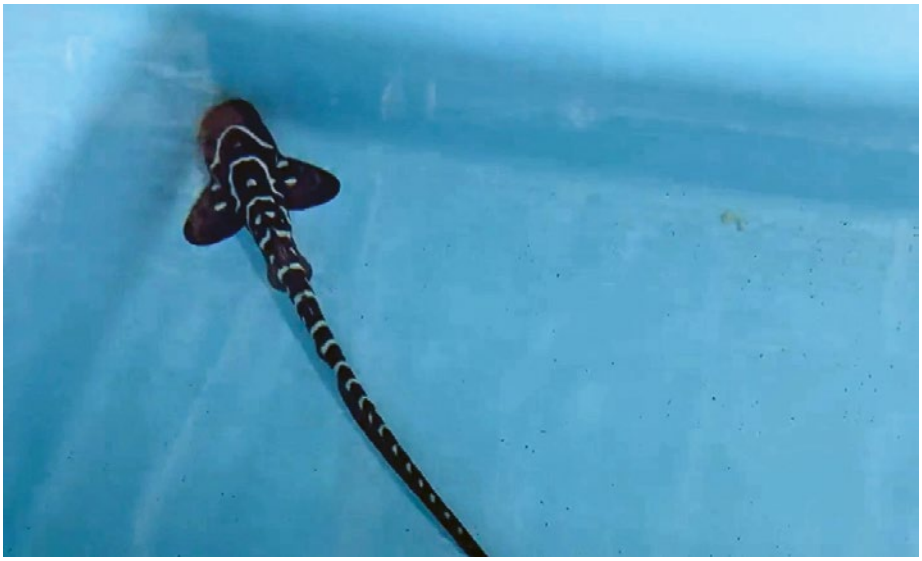
Result description: This workshop took place in July 2023. Candidate species for translocation were discussed at this meeting. The final report will be generated and distributed in 2024.

ACT

Conservation actions

T-005 Continue to lead translocation efforts with Zebra Sharks (*S. tigrinum*) in Indonesia through StAR Project, including a site visit in 2023. (KSR 10)

A juvenile Zebra Shark (*Stegostoma tigrinum*) in a holding pool on-site in Indonesia before a translocation
Photo: Georgia Aquarium



Number of conservation translocations conducted: 6

Result description: Through the effort of GAI staff alongside members of the StAR Project, six Zebra Shark pups were translocated in Indonesia. GAI was able to complete at least one site visit in 2023.

T-006 Acoustic and satellite tagging efforts with Whale Sharks in Taiwan and Australia to understand the movement and connectivity of understudied populations. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: In 2023, 21 individual Whale Sharks were tagged due to efforts in both Australia and Taiwan.

T-007 Develop research plan to expand research partnership with elasmobranchs in Taiwan. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 5

Result description: Five elasmobranch species were tagged in Taiwan in 2023.

T-008 Acoustic and satellite tagging of Sand Tiger Sharks in US waters to identify the southern range of this species. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: Around 25 Sand Tiger Sharks were tagged off the coast of North and South Carolina this year. No Angel Sharks were tagged this year.

T-009 Support tagging and genetics efforts for Data Deficient Lesser Devil Rays in the Gulf of Mexico. (KSR 10)

Number of threatened species benefiting from *in situ* conservation action: 1

Result description: A number of Devil Rays were tagged in the Gulf of Mexico this year.

T-012 Support satellite tagging efforts with Silky Sharks (*C. falciformis*) in Belize. (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: A total of five satellite tags were supplied to partners in Belize.

T-013 Test and refine suction cup accelerometer tag package design for wild manta rays using aquarium animals. (KSR 10)

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

Result description: We achieved multiple successful deployments of the suction tag on an *ex situ* manta ray this year. Further refinement will be made in 2024 in hopes of a successful deployment on *in situ* manta rays within the quadrennium.

T-014 Support metabolic studies with aquarium Beluga Whales for the development of better bioenergetics estimates for critical wild populations. (KSR 10)

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

Result description: Metabolic studies with *ex situ* Belugas are ongoing, allowing for bioenergetic models to be created for *in situ* populations. We plan to continue these studies to gather more data to contribute to the modelling for wild populations.

T-016 Field efforts to understand movement and health of Florida Manatees in Georgia waters. (KSR 10)

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

Result description: This year GAI participated in field captures, health assessments, and tagging of manatees in various locations in Georgia waters.

T-018 Continue to support the Florida Reef Tract Rescue Project by holding wild corals at the aquarium until they can be released. (KSR 10)

Number of threatened species benefiting from *ex situ* conservation action: 9

Result description: GAI continues to hold nine unique species of corals for genetic banking from the Florida Reef Tract Rescue Project.

Policy

T-015 Develop policy position for GAI on North Atlantic right whales. (KSR 10)

Number of position statements addressing major drivers/emerging threats of species or population loss: 0

Result description: We will not be publishing a public stance at this time due to internal shifts in policy strategy and development. A different department will now take the charge in developing policy statements and it has yet to be determined whether or not this will include a position for GAI on North Atlantic Right Whales before the conclusion of the quadrennium.

NETWORK

Capacity building

T-019 Discuss aquarium's CSS plan with leads from the SSC, MCC, WCPA, CPSG, CTSG, CSG, and SSG. (KSR 3)

Networking with IUCN leaders to determine GAI's CSS workplan: 0

Result description: GAI attended meetings with leads from SSC, MCC, WCPA, CPSG,

Application of suction cup tag to a Manta Ray (*Mobula* sp.) in Georgia Aquarium's Ocean Voyager Exhibit
Photo: Georgia Aquarium

CTSG, CSG, and SSG in 2023 and plan to continue these meetings through the quadrennium.

T-020 Conservation planning and facilitator training and mentorship for Katelyn Herman with CPSG. (KSR 2)

Number of people trained in conservation planning: 1

Result description: Katelyn Herman started her mentorship with CPSG and is continuing her training through 2024. She has already facilitated multiple workshops in 2023 and plans to continue this through the quadrennium.

T-022 Attend GCSS meeting in Indianapolis, IN. (KSR 2)

Number of people trained in other fields: 6

Result description: In April 2023, six people attended the GCSS meeting in Indianapolis, IN.

T-023 Hire two more staff to support workshop planning and project coordination efforts for the CSS. (KSR 2)

Number of SSC members recruited: 2

Result description: Two staff were hired in the appropriate disciplines to support CSS at GAI this year.

COMMUNICATE

Communication

T-024 Develop a landing page for CSS activities on the aquarium's website. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 0

Result description: The landing page is in the late stages of development. Currently awaiting approval from our internal PR team before final publication. The landing page will include information about the role of GAI in the CSS community and vice versa. It will also include information about our current projects, links to affiliated programs, and access to publications authored and contributed to by our team.

Summary of achievements

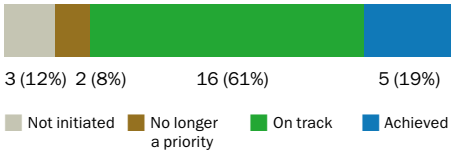
Total number of targets 2021–2025: 26

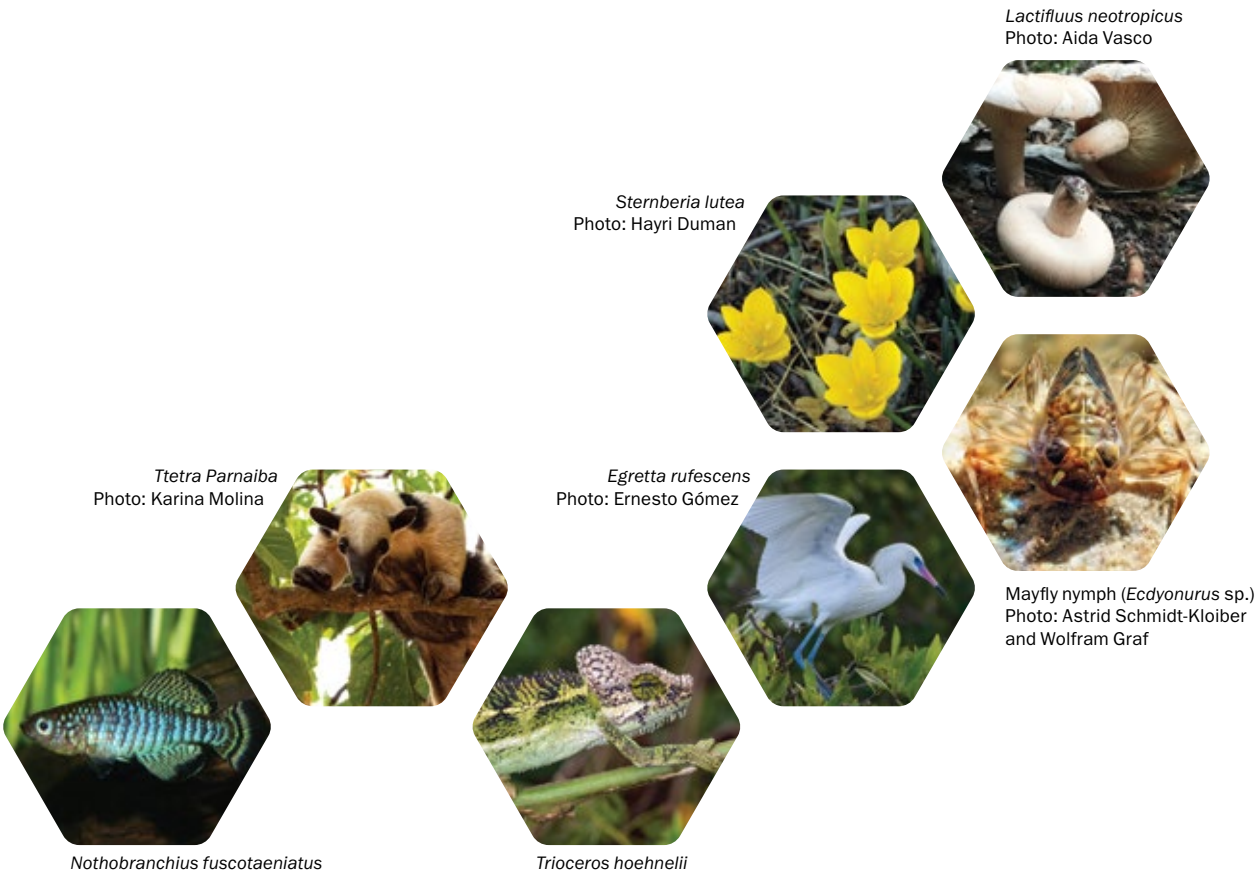
Geographic regions: 3 Global, 19 America, 4 Asia, 1 Body of water

Actions during 2023:

Plan: 4 (KSR 8)
Act: 11 (KSR 10)
Network: 4 (KSR 2, 3)
Communicate: 1 (KSR 13)

Overall achievement 2021–2025:





Lactifluus neotropicus
Photo: Aida Vasco

Sternberia lutea
Photo: Hayri Duman

Ttetra Parnaiba
Photo: Karina Molina

Egretta rufescens
Photo: Ernesto Gómez

Mayfly nymph (*Ecdyonurus* sp.)
Photo: Astrid Schmidt-Kloiber and Wolfram Graf

Nothobranchius fuscotaeniatus
Photo: Csenge Nagy

Trioceros hoehnelii
Photo: Christopher V. Anderson