



Species

ISSUE 64

2023 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 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:

Larriera, A. and Manolis, C. 2024. 2023 Report of the Crocodile Specialist Group. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat*. Gland, Switzerland: IUCN. 6 pp.

2023 Report

IUCN SSC Crocodile Specialist Group



SOCIAL MEDIA AND WEBSITE

Facebook: @iucncsg

X: @CrocSpecGroup

Website: www.iucncsg.org

CO-CHAIR

Alejandro Larriera

Universidad Nacional
del Litoral, Santa
Fe de la Vera Cruz,
Argentina

CO-CHAIR

Charlie Manolis

Wildlife Management
International (WMI),
Queensland, Australia

RED LIST AUTHORITY COORDINATOR

Sally R. Isberg

Centre for Crocodile
Research, Noonamah,
Australia

PROGRAMME OFFICER

Sally R. Isberg

Centre for Crocodile
Research, Noonamah,
Australia

NUMBER OF MEMBERS

726

Mission statement

The Mission of the IUCN SSC Crocodile Specialist Group (CSG) is to assist the International Union for Conservation of Nature (IUCN) and the Species Survival Commission (SSC) in meeting their missions with regard to the conservation, management and sustainable use of world crocodilians.

Projected impact 2021–2025

By the end of 2025, we envisage: (1) increased reintroductions and improved status of wild populations of Critically Endangered (CR) crocodilian species such as Chinese Alligator (*Alligator sinensis*; China), Siamese Crocodile (*Crocodylus siamensis*; Cambodia, Thailand, Viet Nam, Lao PDR) and Philippine Crocodile (*C. mindorensis*; Philippines); (2) improved legal protection status of Siamese Crocodile and Tomistoma (*Tomistoma schlegelii*) habitat in Lake Mesangat, East Kalimantan, Indonesia; (3) tracking study implemented on Tomistoma; (4) publications on traceability systems, sustainable use and livelihoods and Conservation Priorities; (5) completion of species Action Plans; and (6) a standard reference source developed for crocodilians.

Targets 2021–2025

ASSESS

T-001 Review and undertake IUCN Red List assessments for crocodilians.

Status: On track

T-009 Update CSG *Best Management Practices for Crocodilian Farming* manual.

Status: On track

T-010 Develop an updated standard reference source for crocodilian taxonomy and phylogenetic relationships.

Status: On track

T-013 Update the CSG 'Crocodilian Capacity Building Manual'.

Status: On track

T-014 Encourage the implementation of a radio- and satellite-tracking study on Tomistoma in Indonesia or Malaysia (Sarawak) or both.

Status: Achieved

T-017 Review and assess the main traceability systems available for reptile products in international trade.

Status: Achieved

T-022 Fund graduate/postgraduate students who elect to work on crocodilian conservation and management through the CSG Student Research Assistance Scheme (SRAS) and Fritz Huchzermeyer Veterinary Science Student Research Assistance Scheme (FHVS-SRAS) Programmes.

Status: On track

PLAN

T-003 Improve the status of wild Siamese Crocodile populations, by continuing to encourage programmes and countries to engage further and more rapidly in reintroduction programmes (Thailand, Cambodia, Viet Nam, Lao PDR).

Status: On track

T-004 Continue to monitor and track the status of wild Philippine Crocodile and Chinese Alligator populations and encourage the reintroduction programmes underway with both species.

Status: On track

T-011 Review and update Crocodilian Species Action Plans.

Status: On track

T-012 Develop 'CSG Conservation Priorities for World Crocodilians'.

Status: On track

T-015 Undertake country/species reviews.

Status: On track

T-020 Review the UN Sustainable Development Goals as they pertain to crocodilian conservation, management and sustainable use, for the benefit of all CSG members.

Status: Achieved

T-021 Encourage programmes aimed at improving the status of Lake Mesangat and associated areas (Kalimantan, Indonesia) for Siamese Crocodiles and Tomistoma.

Status: On track



Mother Philippine Crocodile (*Crocodylus mindorensis*) with young in July 2021
Photo: A. Rauhaus

ACT

T-018 Prepare and disseminate case studies on Livelihoods and Sustainable Use.
Status: On track

T-019 Assess the impact on crocodilian conservation efforts by various NGOs to curtail all trade in wildlife to meet ideological goals outside the mission of both SSC and IUCN.
Status: On track

T-023 Improve the status of wild Black Caiman and Orinoco Crocodile populations by establishing and/or furthering programs to engage more rapidly in restocking and reintroduction programs.
Status: On track

NETWORK

T-002 Expand membership of CSG with new members working on crocodilian research, conservation, and management.
Status: On track

T-005 Develop a CSG Communication Strategy.
Status: On track

T-007 Continue to develop and promote the CSG Leaders Programme.
Status: On track

T-016 Maintain involvement at international forums (e.g., CITES, IUCN, IUCN World Conservation Congress).
Status: On track

Activities and results 2023

ASSESS

Communication

T-009 Update CSG *Best Management Practices for Crocodilian Farming* manual. (KSR 5)

Annual update of CSG Manual: 0

Result description: The CSG *Best Management Practices for Crocodilian Farming* is reviewed and updated as new information becomes available.

Red List

T-001 Review and undertake IUCN Red List assessments for crocodilians. (KSR 6)

Number of national Red List reassessments published: 1

Result description: In 2023, the Red List assessment for *Tomistoma* was submitted. Draft assessments for Black Caiman (*Melanosuchus niger*), Central African Slender-snouted Crocodile (*Mecistops leptorhynchus*) and West African Slender-snouted Crocodile (*Mecistops cataphractus*) are well advanced, and Mugger (*Crocodylus palustris*) is at the beginning of the drafting phase.

[SSC Grant awarded]

Research activities

T-013 Update the CSG 'Crocodilian Capacity Building Manual'. (KSR 5)

Number of publications produced in internal journals of SSC groups: 0

Result description: Review and updating of The CSG Crocodilian Capacity Building Manual is ongoing.

T-022 Fund graduate/postgraduate students who elect to work on crocodilian conservation and management through the CSG Student Research Assistance Scheme (SRAS) and Fritz Huchzermeyer Veterinary Science Student Research Assistance Scheme (FHVS-SRAS) Programmes. (KSR 5)

Number of publications produced in internal journals of SSC groups: 20

Result description: Twenty (20) applications for SRAS funding were received in 2023, of which 15 were approved and funded, three are still under review and additional information was requested from the other two to meet the application guidelines.

PLAN

Planning

T-003 Improve the status of wild Siamese Crocodile populations by continuing to encourage programmes and countries to engage further and more rapidly in reintroduction programmes (Thailand, Cambodia, Viet Nam, Lao PDR). (KSR 8)

Number of conservation plans/strategies updated: 3

Result description: In Lao People's Democratic Republic, thirty-one hatchlings from the 2020 hatchling cohort were released in the Xe Champhone Ramsar Wetlands in March 2023 as part of a collaborative effort between the Savannakhet Provincial Department of Agriculture and Forestry, and the Wildlife Conservation Society. Drone technology is now being utilised to locate Siamese Crocodile nests, which are also being used as the metric to estimate population trends because of the difficulties of nocturnal counts owing to densely vegetated wetlands. The number of crocodiles is estimated to be between 70 to 225 individuals, thus making this population of global conservation significance, ranking among the largest known wild Siamese Crocodile population in mainland Southeast Asia. In Cambodia (Pablo Sinovas, FFI), the annual monitoring was conducted in five crocodile sanctuaries (O'Som, Areng, Chhay Reap, Tatai Leu, and Steung Khiew) in the Cardamom Mountains. Analysis of monitoring data from the last two decades indicates that the population in the Cardamom Mountains is stable overall, with the two sites known to hold the largest populations of the species showing evidence of reproduction, and a stable and growing population, respectively. One nest was located in May 2022 (Chhay Reap – 22 eggs; all infertile) and another in June 2023 (Trapeang Peing crocodile sanctuary with 21 eggs; 17 fertilized, four infertile but were all compromised by flooding). Ten crocodiles (two males; eight females) were released in the upper Stung Kampong Tachey River in a community-protected sanctuary in the Cardamom Mountains in December 2022. Permission has already been sought from the Ministry of Agriculture, Forestry and Fisheries (MAFF) to release more crocodiles in the Cardamom area and plans are underway to release another 50 crocodiles in late February 2024. In 2022-23, the captive breeding facilities at Phnom

Tamao Wildlife Rescue Centre (PTWRC) have produced 138 hatchlings (60 in 2022 and 78 in 2023) and currently hold a total of 269 Siamese Crocodile individuals (10 breeding males, 43 breeding females, 129 sub-adults and juveniles, and 87 new hatchlings) as part of the breeding and release programme. The DNA sampling of 75 of these crocodiles has identified 63 as being purebred Siamese Crocodiles and 12 as hybrids. In March 2023, Fauna and Flora International (FFI) conducted a crocodile survey and habitat assessment in O'Chay and O'Chentong within Virachey National Park (VNP), Siem Pang district, Steung Treng province, but no evidence of Siamese Crocodiles was found. Habitat assessment of these rivers was found not to be suitable for the release of crocodiles as only a small number of anlongs (small pools of water) remained in the dry season. The anlongs were generally small and very shallow, often less than 1-m-deep and about 50-150-m-long, and thus unsuitable for crocodiles. In August 2023, FFI collaborated with the Provincial Department of Environment in Ratanakiri to assess habitat suitability for Siamese Crocodile reintroduction/reinforcement in O'Kanhou, Virachey National Park (VNP), Ratanakiri Province. Habitats were also found to only be able to support a small population, especially for reproduction. A trial release is planned with processes due to begin in March 2024. In Thailand (Thai Crocodile Farm Association), there have been three release programs implemented since 2000 but they have contributed little to the wild numbers. However, these releases have provided the capacity and capability for future restocking efforts. In 2023, an effort to release 200 juveniles into six habitats and protected areas was initiated.

T-004 Continue to monitor and track the status of wild Philippine Crocodile and Chinese Alligator populations and encourage the reintroduction programmes underway with both species. (KSR 8)

Number of conservation plans/strategies updated: 3

Result description: In May 2023, three juvenile Philippine Crocodiles (*Crocodylus mindorensis*) from Cologne Zoo (Germany) were repatriated to the Philippines. The Anhui Chinese Alligator National Nature Reserve (ACANNR) has a five-year plan which includes: (1) Expanding the suitable habitats for Chinese Alligators within ACANNR. This has included relocating and resettling 148 residential houses from five counties to a total cost of USD 66.1 million; (2) Actively promoting the restoration of existing habitat, including re-construction of the food chain of Chinese Alligators (current investment of USD 2.87 million); (3) Re-introduction of Chinese Alligators into the wild – to date, 1,300 of the planned 1,500 alligators have been reintroduced. Monitoring of the releases shows an 80% survival rate at one year post-release and, in 2023, 400 eggs were found in 17 nets with 250 resulting hatchlings. A census survey is due to be conducted in 2024 but there are estimated to be 1,200 Chinese Alligators in the ACANNR; (4) Development of long-term governance mechanisms for the ongoing success of ACANNR including social outreach to raise awareness of Chinese Alligators.

T-011 Review and update Crocodylian Species Action Plans. (KSR 8)

Number of conservation plans/strategies updated: 0

Result description: Action Plans continue to be reviewed and developed, with current efforts focussing on prioritizing proposed conservation actions for all crocodylian species.

[SSC Grant awarded]

T-020 Review the UN Sustainable Development Goals as they pertain to crocodylian conservation, management and sustainable use, for the benefit of all CSG members. (KSR 9)

Completion of review: Ongoing.

Result description: The UN Sustainable Development Goals, as they pertain to crocodylian conservation, management



Wild False Gharial (*Tomistoma schlegelii*) basking on the Arut River, Kalimantan, Indonesia
Photo: Pak Suryadi

and sustainable use, were reviewed, and a document was prepared for distribution on our website and social media channels.

T-021 Encourage programmes aimed at improving the status of Lake Mesangat and associated areas (Kalimantan, Indonesia) for Siamese Crocodiles and Tomistoma. (KSR 8)

Number of conservation plans/strategies updated: 1

Result description: Discussions with different organisations, as well as the recruitment of students, are in progress.

ACT

Conservation actions

T-023 Improve the status of wild Black Caiman and Orinoco Crocodile populations by establishing and/or furthering programs to engage more rapidly in restocking and reintroduction programs. (KSR 10)

Number of conservation translocations conducted: 1

Result description: In May 2023, 169 Orinoco Crocodiles (*Crocodylus intermedius*) were released into the Capanaparo River, Venezuela. These crocodiles were one-year-old, captive-bred individuals from Masaguaral Ranch and Leslie Pantin Zoo. This was a community event and also involved doctors from the 'Children of the Jungle Project' who offered medical and dental care to the local indigenous community as well as donations of medicines, food, and school supplies. This is the 16th release since 1991, bringing up a total of 3,305 individuals being released to date. Various CSG members also belonging to the group 'Crocodylia Brazil' have been working

on educational programs aimed at improving the coexistence between humans and the Black Caimans in the Amazonian region.

NETWORK

Capacity building

T-007 Continue to develop and promote the CSG Leaders Programme. (KSR 2)

Number of people trained in management skills: 1

Result description: There have been internal discussions on the Future Leaders Program about more ways to develop succession plans and other initiatives to involve members in the strategic direction of the CSG. This is an ongoing process.

[SSC Grant awarded]

Membership

T-002 Expand membership of CSG with new members working on crocodylian research, conservation, and management. (KSR 2)

Number of SSC members recruited: 18

Result description: Membership by December 2023 comprised 726 members, with 18 new members from nine countries added throughout the year. Four members were deceased, five members retired, and four members resigned.

[SSC Grant awarded]

T-005 Develop a CSG Communication Strategy. (KSR 2)

Number of SSC members recruited: 1

Result description: The draft CSG Communication Strategy is currently under review, and yet to be finalised.

Synergy

T-016 Maintain involvement at international forums (e.g. CITES, IUCN, IUCN World Conservation Congress). (KSR 3)

Number of international forums attended: 1

Result description: CSG members have been integrally involved in the review of the non-detriment provisions of CITES (Article IV,2a). The CSG closely monitored the trade suspension of CITES-listed species from Mexico, due to the potential impact on crocodylian trade.

Acknowledgements

The IUCN SSC Crocodile Specialist Group would like to acknowledge the work of the Executive Committee, Executive Officer, and the Steering Committee, in addition to all our valuable CSG members, who are working tirelessly to promote the conservation of all crocodylian species around the world.

Summary of achievements

Total number of targets 2021–2025: 21

Geographic regions: 17 Global, 1 America, 3 Asia

Actions during 2023:

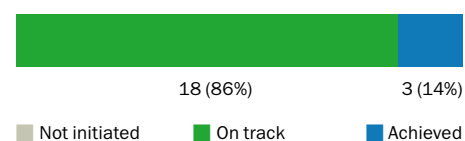
Assess: 4 (KSR 5, 6)

Plan: 5 (KSR 8, 9)

Act: 1 (KSR 10)

Network: 4 (KSR 2, 3)

Overall achievement 2021–2025:





Nothobranchius fuscotaeniatus
Photo: Csenge Nagy



Tetra Parnaiba
Photo: Karina Molina



Trioceros hoehnelii
Photo: Christopher V. Anderson



Sternberia lutea
Photo: Hayri Duman



Egretta rufescens
Photo: Ernesto Gómez



Lactifluus neotropicus
Photo: Aida Vasco



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