



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:

Lindeman, K. and Samoilys, M. 2024. 2023 Report of the Snapper, Seabream and Grunt Specialist Group. In: IUCN SSC and Secretariat. *2023 Report of the IUCN Species Survival Commission and Secretariat*. Gland, Switzerland: IUCN. 8 pp.

2023 Report

IUCN SSC Snapper, Seabream and Grunt Specialist Group



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NUMBER OF MEMBERS
70

SOCIAL MEDIA AND WEBSITE

Website: <https://iucn.org/our-union/commissions/group/iucn-ssc-snapper-seabream-and-grunt-specialist-group>

Mission statement

To achieve global conservation and sustainable use of snappers, seabreams, grunts and associated reef fish species through the application of improved scientific knowledge and community engagement in management decision making.

Projected impact 2021–2025

For the 550 species in the Snapper, Seabream and Grunt Specialist Group (SSG SG), we intend to generate impacts via 18 Conservation Targets that will reverse population declines through improved practices in fisheries management. These impacts will include the identification of regional bycatch hotspots, improved spawning aggregation management, increased use of fisher knowledge in science and decision making, improved taxonomic knowledge to enhance management, and increased communication and awareness of the ecological and economic values of these species.

Targets 2021–2025

ASSESS

T-004 Complete global Red List reassessments of approx. 60 species in the Caesionidae, Haemulidae, Lutjanidae and Nemipteridae that are subject to high fishing pressure and bycatch.
Status: Achieved

T-005 Complete global Red List reassessments in the family Sparidae with a focus on restricted range, endemic South African species, the most threatened of the SSG SG species.
Status: Achieved

T-015 Publish an assessment of climate change impacts on haemulid, lutjanid, lethr-
inid and nemipterid species.
Status: On track

T-016 Publish a paper that clarifies currently problematic haemulid taxonomy and phylogeny.
Status: On track

PLAN

T-006 Support spawning site conservation initiatives with Regional Fisheries Management Organisations (RFMOs) and NGOs in at least two regions, in part by increased graduate student research.
Status: On track

T-007 Develop a Specialist Group Bycatch Reduction Workgroup, and identify regional hotspots and possible actions.
Status: On track

T-008 Review fishery management alternatives for South African sparids using IUCN Conservation Action Plan protocols with national partners.
Status: On track

ACT

T-010 Implement priority recommendations from the IUCN Fisher Knowledge Guidelines with citizen science initiatives for advances in the management of SSG SG species.
Status: On track

T-011 Develop identification guides for: (a) common SSG fishery species, and (b) early life stages of common snapper and grunt species.
Status: Achieved

T-012 Provide technical consultations, e.g. on a Fishery Management Plan for a government agency, letters of support for science-based rulemaking, annually to support actions by fishery organisations working on SSG conservation.
Status: On track

T-019 Conduct climate change vulnerability assessment on selected SSG SG species, e.g. impacts of coastal habitat degradation on lutjanid, haemulid and lethr-
inid species.
Status: Achieved

NETWORK

T-001 Ensure 20% of Specialist Group members are formally trained as Red List assessors by 2022.
Status: On track

T-002 Ensure 15% of Specialist Group members are formally trained in species conservation planning by 2024.
Status: On track



T-003 Establish at least one formal partnership or strategic alliance to provide financial support.

Status: On track

COMMUNICATE

T-013 Create a Communications Workgroup to provide information across multiple media platforms on global, regional and local Specialist Group activities.

Status: On track

T-014 Publish a short review article on the need for tactically expanded taxonomy to improve management and conserve fisheries of the over 550 SSG species.

Status: On track

T-017 Provide public presentations and webinars on SSG Red Listing or conservation activities at national/transnational events with partners.

Status: On track

T-018 Expand technical content and create three regional photo image galleries on the SSG website.

Status: On track

Activities and results 2023

ASSESS

Red List

T-004 Complete global Red List reassessments of approx. 60 species in the Caesionidae, Haemulidae, Lutjanidae and

Nemipteridae that are subject to high fishing pressure and bycatch. (KSR 6)

Number of global Red List reassessments completed: 26

Result description: In 2023, the SG finalised the first extinction risk assessments for 26 additional species in submissions to the IUCN Red List. This included eight species of emperors (Lethrinidae), seven species of sweetlips/grunts (Haemulidae), seven species of threadfin breams (Nemipteridae), and two species of fusiliers (Caesionidae). This submission involved efforts by many SG members and the continued assistance of the Marine Biodiversity Unit, at Old Dominion University. The latest work primarily focused on West Pacific and Indian Ocean species. In terms of achieving the first red listing of the more than 560 species, we are at approximately 91.5% of the total. The taxonomic status of more than 20 other SSG species requires further clarification, e.g. target 016 for haemulids.

T-005 Complete global Red List reassessments in the family Sparidae with a focus on restricted range, endemic South African species, the most threatened of the SSG species. (KSR 6)

Number of global Red List reassessments completed: 17

Result description: By late 2023, detailed re-assessments of 17 important species of

sparids (seabreams) in South Africa were completed by a large team of experts led by Dr Bruce Mann. Of the species, nine are threatened and eight are near threatened or data deficient. Additional information is in target 008. We also scoped work on 10 other non-threatened sparid species requiring first Red List assessments in other regions. There are also needed taxonomic clarifications, as the family currently includes over 160 species.

T-015 Publish an assessment of climate change impacts on haemulid, lutjanid, lethrinid and nemipterid species. (KSR 6)

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

Result description: Ongoing work in East Africa to assess the coral reefs of Kenya and Tanzania by CORDIO is using the standards of the IUCN's National Red List of Ecosystems and includes climate change impacts on SSG species that are important in local fisheries. Technical documents and other products from this work will be made available to the Marine Biodiversity Unit and potential Red List reviewers of species in this region to advance the use of climate change considerations in Red List assessments and re-assessments.



Redbelly Yellowtail Fusilier (*Caesio cuning*), Palau
Photo: David B. Snyder

Research activities

T-016 Publish a paper that clarifies currently problematic haemulid taxonomy and phylogeny. (KSR 5)

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

Result description: Information gathering via completion of the first Red List assessments continued for the most taxonomically problematic haemulid species (approximately 20 species). Primary foci are the genera *Pomadasys*, *Plectorhinchus*, *Diagramma*, and *Rhonciscus*. As resources allow a review of the validity of several species and genera continued. To date, a higher standardised number of taxonomically problematic species have been found in the Haemulidae than in other families of the SSG SG.

PLAN

Planning

T-006 Support spawning site conservation initiatives with Regional Fisheries Management Organisations (RFMOs) and NGOs in at least two regions, in part by increased graduate student research. (KSR 8)

Number of conservation plans/strategies developed: 0

Result description: SG members and others made substantial progress in planning a global online workshop on spawning aggregation science and management of SSG species for 2024. This includes work on a number of online technical documents and videos with a substantial fishers' knowledge component, target 010 of the SG, to advance information transfer for

sustainable use. Various SG members in differing regions continued their work with RFMOs, other government agencies, and NGOs on spawning science and management issues. For example, Dr Will Heyman and other SSG members continue to assist in work on five spawning reserves established in 2017 to protect SSG and other species of the southeast US. The work includes field verification of spawning activity using cooperative research with commercial fishermen within the federal closed areas, established in 2017. Documenting spawning in key species will inform decisions to either sunset or maintain these reserves in 2027. Research in 2023 documented the spawning Blackfin Snapper (*Lutjanus buccanella*).

T-007 Develop a Specialist Group Bycatch Reduction Workgroup, and identify regional hotspots and possible actions. (KSR 8)

Bycatch Reduction Workgroup identifies possible conservation actions: 0

Result description: Review work for many regions by members of the bycatch/byproduct workgroup in 2023 and 2022 found that data are very limited, with little standardisation among these typically multi-species bycatch systems. A substantial bycatch/byproduct database for all six SSG families and over 10 regions is being maintained. Due to work needed on other quadrennium target projects and limited resources, this topic received less attention in 2023. The importance of bycatch issues for SSG species varies substantially by taxa and region, and we anticipate a narrower geographic focus in coming efforts.

T-008 Review fishery management alternatives for South African sparids using IUCN Conservation Action Plan protocols with national partners. (KSR 8)

Number of conservation plans/strategies updated: 3

Result description: Reassessments of the Red List status for 17 threatened or Near Threatened/Data Deficient species of sparids were completed by a team of South African experts led by Dr Bruce Mann. These assessments will be submitted to the Red List Unit in 2024 for web publication. Significantly, the Seventy-four Seabream, *Polysteganus undulosus*, will be downlisted from Critically Endangered to Endangered. This action is based in part on decades of continuing management guidance to RFMOs from the members of this team of scientists.

ACT

Conservation actions

T-010 Implement priority recommendations from the IUCN Fisher Knowledge Guidelines with citizen science initiatives for advances in the management of SSG SG species. (KSR 10)

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

Result description: In 2023, a team led by SSG SG member Dr Kafayat Fakoya, Lagos State University, and Ayodele Oloko, graduate student, Univ. of British Columbia, substantially advanced a manuscript comparing fisher and fish-trader knowledge among four snapper species in the state of Lagos, Nigeria. The team includes Dr Saba Abdulwakil, now at Universiti Putra



Black and White Snapper (*Macolor niger*), juvenile, Guam
Photo: David B. Snyder

Malaysia. This work advances information transfers in the region that could support local- or regional-scale FK initiatives to address emerging threats to SSG species. Number of intervention letters addressing major drivers/emerging threats of species or population loss: 0

Result description: SG members consulted with commercial and recreational fishers in the southeast US, artisanal fishers in East Africa, and fishers in other global regions to harvest and amplify the use of fishers' knowledge. Planning in 2023 on target 006, as well as this target, includes intervention letters in 2024 to support FSA conservation and, possibly, habitat conservation.

T-010 Implement priority recommendations from the IUCN Fisher Knowledge Guidelines with citizen science initiatives for advances in the management of SSG SG species. (KSR 11)

Number of communities benefited from sustainable use programmes: 20

Result description: In 2023, work continued in Kenya to improve the governance of Locally Managed Marine Areas to sustain artisanal fishing practices including species of snappers, emperors, and sweetlips. At a regional level, CORDIO also hosted a workshop in 2023 on compliance and enforcement in small-scale fisheries in Dar es Salaam, Tanzania. Experts from Kenya, Mozambique, Comoros Islands, and Madagascar were among the workshop participants. At least 20 communities in East Africa have fisheries on SSGs that have benefited from sustainable use programs.

T-012 Provide technical consultations, e.g. on a Fishery Management Plan for a government agency, letters of support for science-based rulemaking, annually to support actions by fishery organisations working on SSG conservation. (KSR 10)

Number of species with increased or prevented decrease in population or range size, as a result of conservation actions: 0
Result description: Work by South African members of the SSG SG through 2023 has identified several species of sparids which will be downlisted on the Red List, including one that is highly threatened. These members are also involved in technical consultations with management authorities. These findings will go through final review and preparation for submission to the Red List Unit in 2024. For most SSG species, fisheries data are very limited.

Technical advice

T-011 Develop identification guides for: (a) common SSG fishery species, and (b) early life stages of common snapper and grunt species. (KSR 10)

Number of technical consultations provided to support conservation actions: 0

Result description: Dozens of identifications of SSG species were made for various institutions including NGOs and universities by a wide array of SG members. This work included some editing and review of field collection checklists, e.g. Vilasri, V. *et al.* (2023). "Checklist of fishes collected by bottom otter-trawling from upper Gulf of Thailand by MV-SEAFDEC 2 cruise, Dec. 2019". *Thailand Natural History Museum Journal*. 17(2). We also continued to assemble folders of identification guides

and other documents for SSG species by global region and family and expect to have these on the SG website by late 2024.

T-012 Provide technical consultations, e.g. on a Fishery Management Plan for a government agency, letters of support for science-based rulemaking, annually to support actions by fishery organisations working on SSG conservation. (KSR 10)

Number of technical consultations provided to support conservation actions: 2

Result description: In coastal East Africa, the regional NGO CORDIO is leading the National Red List Ecosystem assessments of coral reefs in Kenya and Tanzania. A large number of SSG species are foundational components of the ecosystems and socioeconomics of these areas. This work includes collaboration with governmental agencies to define local-scale status assessments for local management as a part of these national coral reef assessments. In each country, two national workshops were presented to (1) provide results, and (2) subsequently discuss management actions.

T-019 Conduct climate change vulnerability assessment on selected SSG SG species, e.g. impacts of coastal habitat degradation on lutjanid, haemulid and lethrinid species. (KSR 10)

Number of technical consultations provided to support conservation actions: 1

Result description: Climate change impacts on fisheries are a major theme of the National Red List Ecosystem assessments of reefs in Kenya and Tanzania by the regional NGO CORDIO. This work includes

Spawning aggregation of Mutton Snapper
(*Lutjanus analis*), Belize
Photo: D. Seifert



a focus on over two dozen SSG species, particularly the snappers, emperors, and sweetlips (grunts). Technical consultations were also provided to regional partners on climate change impacts on SSG species habitats in estuarine and ocean waters of East Florida, in part due to increasing thermal stress. This included maintenance of the [Indian River Lagoon Climate Change Website](#).

NETWORK

Capacity building

T-001 Ensure 20% of Specialist Group members are formally trained as Red List assessors by 2022. (KSR 2)

Number of people trained in assessment tools: 2

Result description: We continued to encourage Red List training within all updates to the SG Membership during 2023.

T-002 Ensure 15% of Specialist Group members are formally trained in species conservation planning by 2024. (KSR 2)

Number of people trained in conservation action: 1

Result description: We continued to encourage Species Conservation Planning training in all updates to the SG Membership during 2023. Not formally measured, at least one person received partial training.

Synergy

T-003 Establish at least one formal partnership or strategic alliance to provide financial support. (KSR 1)

Number of potential funding partners established and maintained: 0

Result description: The SG received \$10,000 from CORDIO, an East African NGO, to support a global, online training workshop on spawning aggregation science and conservation including fishers' knowledge (Targets 006 and 010). Additional funding is under development for these and other targets among several partnerships involving SG members and other organisations.

COMMUNICATE

Communication

T-013 Create a Communications Workgroup to provide information across multiple media platforms on global, regional and local Specialist Group activities. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 1

Result description: Priority actions on many quadrennium targets were emphasised in 2023, communication resources being limited. To advance communications, we expanded a working partnership with a new and robust marine conservation media platform, the Big Fish Initiative, bigfishinitiative.com. This effort and other communications outputs will increase in 2024 as products emerge from efforts on multiple targets and will be coordinated with the SG website.

T-014 Publish a short review article on the need for improved taxonomy to enhance management and conserve fisheries of the over 550 SSG species. (KSR 13)

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

Result description: This work by the SG's Steering Committee, has been delayed by the extended time demands needed to address other priority conservation targets. However, examples of constraints caused by *in situ* identification challenges of early life history stages were added to the planning in 2023. Formal manuscript preparation will initiate in 2025 and highlight management problems resulting from taxonomic challenges for diverse species and families of SSG taxa. Many of these taxa represent data-poor fisheries that managers deal with, due in part, to limited taxonomic data and therefore limited catch data.

T-014 Publish a short review article on the need for improved taxonomy to enhance management and conserve fisheries of the over 550 SSG species. (KSR 12)

Number of media articles mentioning IUCN Species theme: 1

Result description: An SSG SG team is scoping a review article, as resources allow, that includes useful IUCN Red List examples of how, despite the ongoing biodiversity crisis, field taxonomists and associated resources in fisheries have decreased or require updating or both, with concomitant impacts on management.

T-017 Provide public presentations and webinars on SSG SG Red Listing or conservation activities at national/transnational events with partners. (KSR 13)

Number of communication products using innovative tools: 1

Result description: We presented on SSG SG red listing activities to a workshop of members from several marine fish

Bluestripe Snapper (*Lutjanus kasmira*) juvenile,
mangrove habitat, Solomon Islands
Photo: David B. Snyder



Specialist Groups at the Marine Biodiversity Unit using screen share in mid-2023. To increase the visibility of all families and important species within, a substantial 2023 focus was workgroup planning for an online, global spawning aggregation science and fishers' knowledge workshop (quadrennium targets 006 and 010). We began to assemble a substantial web-based Toolkit for Practitioners that will be hosted by the Big Fish Initiative and the SSG SG website, and the multimedia content will include video topics partially developed in planning during 2023.

T-018 Expand technical content and create three regional photographic image galleries on the SSG SG website. (KSR 13)

Number of new regional photo galleries on SSG SG website: 0

Result description: The SSG SG continued to gather geographically and phylogenetically representative photos for photo galleries that will be added to the SG's website. We now have content to upload for all six families of many genera of SSG species in diverse global regions, often including juvenile images. Web content updates in 2023 included the SSG Red

List summary table, while we continued the assembly of content for the 2024 web-posting of regional identification guides (Target 011).

Acknowledgements

We thank all the members of the Snapper, Seabream and Grunt Specialist Group from more than 30 countries for their input and efforts on these species. We thank CORDIO for financial support of the SG's spawning science and fisher knowledge work in 2023-2024. We value the assistance of the Steering Committee members of the SSG SG: Annadel Cabanban, Kafayat Fakoya, Rehka Nair, Stephen Newman, Francis Nunoo, Jose Tavera, Winston Cowie, and Monica Valle. In addition, Christi Linardich, Gina Ralph, and Kent Carpenter of the Marine Biodiversity Unit provided important assistance with all stages of the Red List work. Thanks also to Amanda Vincent and the IUCN Marine Conservation Committee.

Summary of achievements

Total number of targets 2021–2025: 18

Geographic regions: 15 Global, 2 Africa, 2 America

Actions during 2023:

Assess: 4 (KSR 5, 6)

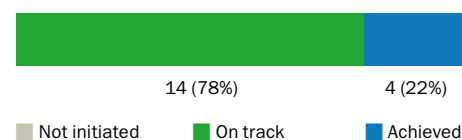
Plan: 3 (KSR 8)

Act: 7 (KSR 10, 11)

Network: 3 (KSR 1, 2)

Communicate: 5 (KSR 12, 13)

Overall achievement 2021–2025:



Lactifluus neotropicus
Photo: Aida Vasco



Sternberia lutea
Photo: Hayri Duman



Tetra 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

