

2021 Report

IUCN SSC Snapper, Seabream and Grunt Specialist Group



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NUMBER OF MEMBERS

70

SOCIAL MEDIA AND WEBSITE

Website: <https://www.iucn.org/commissions/ssc-groups/fishes/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 can 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 fishers' 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 Begin global Red List reassessments of approx. 60 species in the Caesionidae, Haemulidae, Lutjanidae and Nemipteridae families subject to high fishing pressure and bycatch.

T-005 Begin 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.

T-015 Support assessments of climate change impacts on haemulid, lutjanid, lethriniid and nemipterid species.

T-016 Research and publish clarifications of currently problematic haemulid taxonomy and phylogeny.

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.

T-007 Develop a Specialist Group Bycatch Reduction Workgroup to assemble regional data from around the globe to identify spatial hotspots, and achieve management actions.

T-008 Re-assess and review fishery management alternatives for South African sparids using IUCN Conservation Action Plan protocols with national partners.

ACT

T-010 Implement priority recommendations from the IUCN Fishers' Knowledge Guidelines with citizen science initiatives for advances in the management of SSG SG species.

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

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

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

NETWORK

T-001 Ensure 20% of Specialist Group members receive some training as IUCN Red List assessors by 2022.

T-002 Ensure 15% of Specialist Group members receive some training in IUCN species conservation planning by 2024.



Dakar market including seabreams
Photo: B. Russell

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

COMMUNICATE

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

T-014 Publish a review on the need for taxonomic and life history research to improve management and conserve SSG fisheries.

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

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

Activities and results 2021

ASSESS

Red List

T-004 (KSR 6)

Number of global Red List reassessments completed: 10

Result description: In 2021, we initiated the final reviews of remaining draft SSG species accounts with the Marine Biodiversity Unit (MBU) from a workshop in 2020, conducted remotely due to the pandemic.

Ten species accounts for the Nemipteridae (threadfin breams) were submitted to the Red List Unit in late 2021 for publication on the Red List web platform.

T-005 (KSR 6)

Number of global Red List reassessments completed: 0

Result description: These deliverables involve the Red List reassessment of many sparid species (seabreams) and are scheduled for 2023 and beyond. In 2021, as a priority in the reassessment of the family, a group convened to scope the status of threatened and near threatened species in South Africa. These national experts are focusing on the most endangered group of all SSG species. Follow-up work in 2021 produced an updated list of focus species. This target overlaps with target T-008 in the section on Planning, additional information below.

T-015 (KSR 6)

Number of technical documents provided to support Red List assessments/reassessments: 1

Result description: A Red List of Ecosystems for coral reefs of the Western Indian Ocean was published with support of SSG members (Obura et al. 2022). Vulnerability to collapse of coral reef ecosystems in the Western Indian Ocean.

Nature Sustainability. doi.org/10.1038/s41893-021-00817-0) showing the whole region is Vulnerable due to ocean warming and overfishing, with some ecoregions Critically Endangered or Endangered. SSG species depend on these habitats and this reference will be deployed in RL assessments in the future. This assessment provides a base for further national and local level assessments of climate vulnerability for SSG species.

Research activities

T-016 (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 1

Result description: This deliverable on haemulid (grunt) phylogeny is due in 2023-24. Initial scoping and preliminary data gathering began in 2021 for an assessment of select taxa, many with ecological and, sometimes, economic value. Although there has been much recent progress, there are still complex phylogenetic and nomenclatural issues that challenge management. Related published work in 2021 includes Habib et al. Grunts of Bangladesh with two new distributional records from the northern Bay of Bengal assessed by morphometric characters and DNA barcoding. doi.org/10.3897/aiep.51.67043.

PLAN

Planning

T-006 (KSR 8)

Number of conservation plans/strategies developed: 1

Result description: In 2021, we also began scoping a virtual and in-person training-the-trainers workshop for fish spawning aggregation (FSA) in SSG species with use of fishers' knowledge for planning and sustainable use. Focus areas currently include the western Indian Ocean, the Western Atlantic, and other regions. We also continued to work with RFMO staff to assist adaptive management of five deep-water spawning reserves between the Florida Keys and North Carolina. This follows from the System Management Plan developed from earlier work.

T-007 (KSR 8)

Bycatch Reduction Workgroup identifies possible conservation actions: 1

Result description: Based on a survey of membership in 2021, more than 20 specialist group members expressed interest in a bycatch workgroup. Steering committee leads were established for this group. We also worked in 2021 to update our preliminary bycatch database to help identify (a) categories of existing management options and (b) measures of their potential effectiveness in bycatch fisheries among differing global regions. In 2022, we will formalize the workgroup and focus on the most effective science-based conservation opportunities that members recommend for their regions.

T-008 (KSR 8)

Number of conservation plans/strategies updated: 1

Result description: Initial discussions were held in 2021 with South African SSG SG members regarding Red List information and fishery management alternatives for the priority species within this unique sparid (seabream) fauna. South African experts began work to update and expand



Plectorhynchus vittatus, Comoros Islands
Photo: M. Samoily

the original Red List assessments for 17 threatened or near threatened species using the original documents from the IUCN Species Information Service, provided by the MBU. This work includes use of a Bayesian state-space framework, JARA (Just Another Red-List Assessment), for six threatened species as part of the reassessment process. Final Red List reassessment deliverables are targeted for 2023-2024.

ACT

Conservation actions

T-010 (KSR 10)

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

Result description: This is a 2023 target. In 2021, we continued to provide science-based information to fishers in several regions such as West Africa, Australia and the Greater Caribbean. Based on the literature and 2021 member survey interests in both fishers' knowledge (FK, target T-010) and spawning (target T-006), we began the planning of virtual webinars among several regions with a focus on spawning sites of lutjanids and other SSG families (overlapping with quadrennium target T-006).

T-010 (KSR 10)

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

Result description: Actions of this type in 2021 include a comment letter and impact summary for a large coastal development project that would remove a major coastal mangrove habitat in the Philippines and affect local fishing communities. In other instances in 2021, input on management issues with RFMOs occurred in the form of via Zoom and phone meetings, e-mail discussions, and other media. In 2022 and beyond, we are deploying 2021 member survey results to develop more SSG SG letters and other communications with regionally diverse RFMOs.

T-010 (KSR 11)

Number of communities benefited from sustainable use programmes: 0

Result description: This target deliverable will be developed through 2024. The deep-water southeast US spawning reserves potentially benefit several communities in the Florida Keys and the Carolinas but we cannot yet provide numbers. Communities in other regions can also benefit from science-based fishery and habitat conservation information that the SSG SG volunteers.

T-012 (KSR 10)

Number of species with increased or prevented decrease in population or range size as a result of conservation actions: 0

Result description: Target 12 focuses in part on RFMP consultations and is correlated with actions (e.g., comment letters, species identifications, science-based RFMO conservation efforts) on targets that were first scoped in 2021. Various actions will begin to emerge in 2022 for targets including T-006, T-007, T-011 and T-019 on spawning, bycatch, climate impacts and regional identification guides.

Technical advice

T-011 (KSR 10)

Number of technical consultations provided to support conservation actions: 8

Result description: Technical consultations involving species identifications, as well as management strategies (see T-012), were provided in response to various queries in 2021. Examples include (a) identification work and expansion of the photo library of lutjanids and haemulids on the Shorefishes of the Greater Caribbean website, and (b) further work on field identification guides for common SSG species in several regions. The identification work aids the application of species-level fisheries data for SSG species, which is limited in many countries.

T-012 (KSR 10)

Number of technical consultations provided to support conservation actions: 3

Result description: We presented to and responded to queries from NGO, RFMOs and the general public on conservation issues involving fishery management, habitat use, spawning in SSG species. For example, we presented a paper to the Nairobi Convention Science to Policy Platform in March 2021 on 'Mainstreaming community managed marine areas into the Western Indian Ocean's governance frameworks. The paper provides recommendations around small scale fisheries management with specific policy and regulations for governments relevant to many SSG species. Recommendations from this paper were presented to Nairobi Convention member states at the Conference of Parties in Nov. 2021. We also submitted a comment letter and scientific summary of an important coastal habitat destruction proposal in the Philippines that will impact many SSG species. Many members also performed technical consultations in 2021 including service on expert committees and advisory panels.

T-019 (KSR 10)

Number of technical consultations provided to support conservation actions: 1

Result description: A student at Florida Tech worked to develop a climate change sensitivity assessment framework focusing on three early life history stages of five species of haemulids and lutjanids of the Western Atlantic. The student worked with the SSG SG to provide comments on the 2021 US East Coast Fishery Scenario Planning initiative of NOAA and the Atlantic States Marine Fisheries Commission.

NETWORK

Capacity building

T-001 (KSR 2)

Number of people trained in assessment tools: 3

Result description: We advertised Red List training in all Member Updates to all



Processing grunts on the beach, Sucre, Venezuela
 Photo: K. Lindeman

Specialist Group members during 2021. Based on the survey of SG members, twenty members said they had received some Red List training, including prior years. We estimate three people received substantial training in 2021. We will continue to encourage members to take this training several times annually as we prepare for future reassessments.

T-002 (KSR 2)

Number of people trained in conservation action: 2

Result description: Based on a 2021 survey of SG members, we know of two members who received Conservation Planning Specialist Group (CPSG) Species Conservation Planning (SCP) training in 2021. Others said they had received SCP training, but the year was not specified. We advertised SCP training by the CPSG in all member updates to specialist group members during 2021.

T-003 (KSR 1)

Number of funding partners established and maintained: 0

Result description: The 2021 membership survey identified members interested in assisting the co-chairs and steering

committee members on funding. Since the launches of the new targets are now underway, we scoped ways to establish graduate student funding opportunities at a minimum. We also began to scope a social media system with our existing website as a part of our communication workgroup (T-013) to better provide information on SSG SG products.

**COMMUNICATE
 Communication**

T-013 (KSR 13)

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

Result description: In 2021, we used a large web survey to identify and align member interests in terms of a communications workgroup to broadcast SSG species information. An early summary of the communications results was then sent to members. In part, this survey identified the two media platforms members used the most (Twitter and Facebook) and the core steering committee members for the communication workgroup.

T-014 (KSR 12)

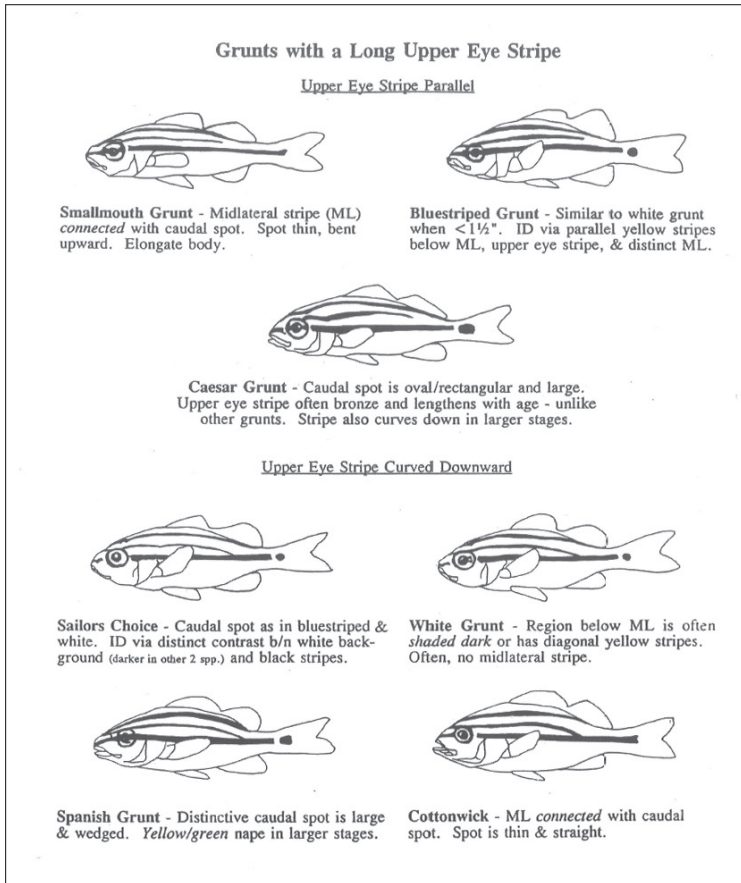
Number of media articles mentioning IUCN Species theme: 0

Result description: The primary deliverable for this 2023-24 target is a journal article examining the role of field and laboratory taxonomy and fishery management decision-making, particularly in multi-species fisheries. In 2021, scoping was initiated on this article. "It has become clear that taxonomic information is not a luxury, it is a real need in a world with a still-growing human population generating enormous pressure on natural resources" (Fischer, J. ed. 2013. *Fish identification tools for biodiversity and fisheries assessments: review and guidance for decision-makers*. FAO Paper No. 585).

T-014 (KSR 13)

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

Result description: The primary deliverable for this is submittal of a journal article by 2024. The 2021 work on new social media platforms and regional web ID guides (T-0013 and T-011) will improve opportunities to highlight differing species and families of SSG SG taxa as we develop



Field identification guide, early juveniles of *Haemulon* species
Photo: K. Lindeman

deliverables for this target. Many of these species are representatives of the challenges that multispecies managers must deal with, in part due to limited taxonomic resources and limited species-level fishery data.

T-017 (KSR 13)

Number of communication products using innovative tools: 0

Result description: Focus has been on beginning diverse quadrennium target projects for Red Listing and management issues. Progress on this target tracks the social media resources in development (target T-013). We started planning a network of Locally Managed Marine Area (LMMA) practitioners in Kenya in early 2021. This was communicated in part through the science to policy recommendations provided to the Nairobi Convention (see target T-012). LMMAs include small scale fisheries management approaches that address sustainable fishing of many SSG species.

T-018 (KSR 13)

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

Result description: In 2021, planning was begun on the regional geographic structure of new photo galleries for all SSG families on the website. Related photo galleries on the Shorefishes of the Greater Caribbean website were expanded in 2021 by identification work and submission of over a dozen new images of early life stages for the lutjanid and haemulid sections.

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Summary of achievements

Total number of targets 2021–2025: 18

Geographic regions: 15 Global, 2 Africa, 2 America

Actions during 2021:

- 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:

