



2021 Report

IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group

CHAIR	RED LIST AUTHORITY COORDINATOR	NUMBER OF MEMBERS
Amanda Vincent Institute for the Oceans and Fisheries, The University of British Columbia, Canada	Riley Pollom Global Center for Species Survival, Indianapolis Zoo, Indianapolis, US	41

Mission statement

To promote the long-term conservation of the world's Syngnathiform (seahorses, pipefishes, seadragons and their relatives) fishes through the illumination and alleviation of threats to wild populations and their ocean habitat.

information to improve Red List assessments for the Data Deficient species,
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Projected impact 2021–2025

The Seahorse, Pipefish and Seadragon Specialist Group (SPS SG) is focusing on relieving pressures (current and anticipated) on species assessed as threatened on the IUCN Red List, and on the many that are Data Deficient. The threatened species are concentrated in four geographic areas: Southeast Asia (marine and freshwater), South Africa and Atlantic South America. We are generating action at the national level that can make a powerful difference: collaborations, conservation assessments, action plans, implementation of existing laws and more. We are particularly determined to (i) support better management of estuarine systems (where many threatened species are found), (ii) reduce the impacts of bottom trawling and other non-selective fisheries on a wide tranche of species, (iii) ensure that CITES listing of seahorses is made effective and (iv) engage the world in caring about these most remarkable fishes. We are gathering all possible

NETWORK

T-018 Collaborate with aquariums, multiplier organisations, NGOs and universities.

T-026 Catalyse joint meeting with Specialist Groups for other marine taxa.

T-027 Find funding for an SPS SG programme of confer and meetings every two years.

T-028 Grow SPS SG expertise in strategic ways by taxon, region, discipline, etc.

T-031 Mobilise IUCN for action to support SPS SG needs/collective marine conservation.

T-032 Develop strategic partnerships/synergies with other organisations.

COMMUNICATE

T-011 Use syngnathid flagship species as tools to expose and reverse perverse incentives.

T-012 Create communications tools regarding perverse incentives for target region coastal marine environments.

T-013 Catalyse campaign to effect change in perverse subsidies in coastal marine environments.

T-014 Raise the profile of syngnathid conservation issues (public, policy makers, donors).

T-015 Develop outreach capacity (develop key messages, identify key audiences, including shers).

T-016 Create synopsis of issues for donors, policy makers, etc.

T-017 Deploy social media strategy.

T-029 Use communications capacity to enhance SPS SG progress.

Activities and results 2021

ASSESS

Red List

T-019 (KSR 6)

Number of new global Red List assessments completed: 1

Result description: A list of priority species of syngnathids for assessment has been identified and created. A draft plan has been established to complete assessments moving forward.

T-019 (KSR 6)

Number of global Red List reassessments completed: 1

Result description: A list of priority species of syngnathids for reassessment has been identified and created.

T-020 (KSR 6)

Number of new global Red List assessments completed: 0

Result description: In 2021, information on newly described seahorse species was collated to help with IUCN Red List assessment through the work of Project Seahorse and volunteers.

T-020 (KSR 6)

Number of global Red List reassessments completed: 0

Result description: In 2021, new data and knowledge was collated on both priority and non-priority species on a regular basis which will aid in the reassessments of syngnathid species under our remit.

T-021 (KSR 6)

Number of new global Red List assessments completed: 0



Knysna Seahorse (*Hippocampus capensis*)
Photo: Louw Claassens

Taxonomy and Evolution, Graham Short, identified and described a new genus within the family Syngnathidae and provided a redescription of the genera *Acentronura* and *Idiotropiscis*. The new genus *Cylix* includes the recently-described Manaia Pygmy Pipehorse (*Cylix tupareomanaia*) from New Zealand. The first genome scale analysis of syngnathid phylogeny, including 183 species, was completed in 2021 and will be published in 2022. In addition, Graham Short has been working on the revision of the *Hippocampus* genus. Data from his analysis will be published in late 2022. A checklist of all syngnathiform fishes is in the process of being drafted.

T-023 (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: Discussions and plans have begun to create a seahorse identification guide for Australia to assist researchers, community scientists and divers and provide an up-to-date list of valid species in the country.

T-025 (KSR 6)

Number of new KBAs confirmed in the World database of KBAs (WDKBA): 0

Result description: Although no new KBAs have been established, plans to initiate discussion and engagement to create, identify and determine KBAs for syngnathids are planned for early 2022.

PLAN

Planning

T-001 (KSR 8)

Number of plans invited/endorsed by national governments/conservation authorities: 0

Result description: This target was achieved in 2018. However, new data and research warrants an update to the Priority Action Statement and the development of a Recovery Action Plan for this species with contribution, engagement and endorsement from stakeholders, national governments and conservation authorities.

T-002 (KSR 8)

Number of plans invited/endorsed by national governments/conservation authorities: 1

Result description: This target was achieved in 2019. The Priority Action Statement for White's Seahorse (*Hippocampus whitei*) was the basis for and aided in the creation of a New South Wales Department of Primary

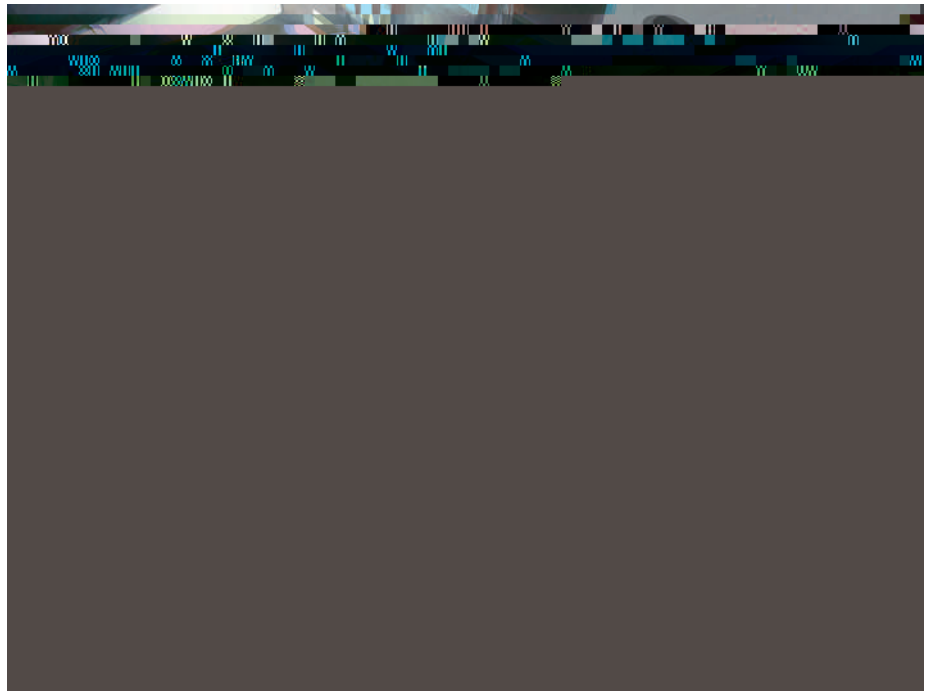
Industries Priorities Action Statement promoting the recovery of this species in New South Wales, Australia.

T-003 (KSR 8)

Number of conservation plans/strategies updated: 0

Result description: Louw Claassens, our Focal Point for Africa, is leading the development of a Recovery Action Plan for the Estuarine Pipefish (*Syngnathus watermayeri*; Critically Endangered), found in only two estuaries in South Africa. The SPS SG supported Louw to obtain a National Geographic grant. Over the past two years, the research team conducted field surveys to determine the current status of the species as well as established the efficacy of using eDNA to detect the species, aimed at enabling additional long-term monitoring. Data from this research will be used to update the IUCN Red List assessment for this species. Once the assessment is complete, a Recovery Action Plan will be finalised. In addition, four workshops were held with key stakeholders which focused on the development of a Recovery Action Plan for *S. watermayeri* that will incorporate the most up-to-date research findings.

Providing training on seahorse population monitoring in Vilankulo, Mozambique
Photo: Louw Claassens



Policy

T-006 (KSR 9)

Number of policies where SSC members provided technical input: 0

Result description: In order to achieve this target, the implementation of relevant rules and laws that affect syngnathids were documented for Argentina, Brazil and South Africa. In addition a large review partially funded by the IUCN Internal SSC grant documented national conservation assessments and legislation for the over 130 countries where syngnathids are found. This review was completed by Project Seahorse team members with considerable input from Specialist Group members in 2021. The report was published as a University of British Columbia (UBC) Fisheries Centre Research Report entitled *Identifying national conservation status, legislation and priorities for syngnathid fishes globally*. Results of this research were presented at an international meeting for syngnathid researchers, SyngBio, in May 2021 and has been added to the IUCN SSC SPS SG website as a living document. Further work in the quadrennium will focus on disseminating this information and encouraging specific policies/objectives to increase national conservation assessments and rules and laws to protect syngnathids at the national level.

ACT

Conservation actions

T-030 (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 2

Result description: In 2021, with support and unanimous approval of our Specialist Group members, we finalised our Urgent

Action Response Document. This document is publicly available on the Specialist Group website and can be used by scientists, non-scientists, government agencies and/or community members to report on and bring attention to concerns and emerging threats to syngnathids in their region/country. Incoming reports will then be documented and used by Specialist Group members to develop concrete actions/plans to address emerging threats and concerns to syngnathids. In response to the environmental disaster caused by the cargo ship M/V X-Pearl off the coast of Sri Lanka, the SPS SG wrote a statement on request of Oceanswell (<https://oceanswell.org/>) that identified and described the threats of oil spills and microplastics to syngnathid populations. This statement is available on their website: <https://oceanswell.org/resources-on-mv-xpress-pearl>.

Policy

T-007 (KSR 10)

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

Result description: In 2020, a draft report documenting the rules and laws that affect syngnathids in Brazil was created. Updates to the draft report are currently in progress and the report will be made publicly available on the SPS SG website in 2022. Plans have been initiated to develop an action plan for syngnathids in Brazil in 2022 to identify and address major drivers and emerging threats to syngnathid species. Position statements on the effects of tourism and boat noise to syngnathid populations are the current priorities for 2022. The implementation of relevant rules and laws that affect syngnathids were

documented for Argentina, Brazil and South Africa and added to the Specialist Group website. A large review partially funded by the IUCN Internal SSC grant documented national conservation assessments and legislation for the over 140 countries where syngnathids are found. This review was published as a UBC Fisheries Centre Research Report and added to the SPS SG website as a living document in 2021. New knowledge gained from this study on national assessments and legislation will support the implementation of IUCN World Conservation Congress Resolution WCC-2020-Res-095 *Conservation of seahorses, pipefishes and seadragons (family Syngnathidae)*. In particular, it "calls on all members, especially State and Government Agency Members, to by 2022, ensure that the status of all syngnathids is assessed and included in national/regional Red Lists as warranted." Knowledge gaps identified in this report will help guide our focus to those range states where national assessments are largely lacking and will improve the effectiveness of the resolution.

NETWORK

Membership

T-028 (KSR 2)

Number of SSC members recruited: 5

Result description: In 2021, five new members were invited to join the Specialist Group. New members increased our geographic scope by adding members from the Philippines, Viet Nam, Hong Kong, Italy and the US with specialities ranging from fisheries, wildlife conservation, management and trade as well as ecology, evolutionary ecology and population genetics.

Synergy

T-018 (KSR 3)

Number of connections/collaborations made: 2

Result description: Through the research led by Specialist Group member and Focal Point for Global Fisheries and Trade, Sarah Foster, we connected with the Dallas World Aquarium and our Specialist Group Focal Point for Ex situ, Paula Carlson, as well as other stakeholders, to complete a UBC Fisheries Centre Research Report. The report, entitled *Changes in the international trade in live seahorses (Hippocampus spp.) after their listing on CITES Appendix II*, investigated the international live trade in seahorses by species, countries of origin, whether specimens were wild sourced or cultured, destinations, volumes, and their changes over time. Project Seahorse

a Twitter thread focusing on the summary