# CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Thirty-second meeting of the Animals Committee Geneva (Switzerland), 19 – 23 June 2023

# Species conservation and trade

Seahorses (Hippocampus spp.)

# IMPLEMENTING CITES FOR SEAHORSES - ASIA REGION WORKSHOP

- 1. This document has been submitted by the Philippines and the United States of America.\*
- 2. CITES Parties, the Animals Committee and the Secretariat are invited to review the recommendations that emerged from a recent Asia region workshop on implementing CITES Appendix II listing for seahorses, as many are of broad utility and applicability for NDFs, monitoring, LAFs and enforcement of diverse taxa. The workshop report is attached as an Annex to this document.
- 3. The meeting was held in Cebu, Philippines from 14-17 March 2023 and generated great interest and engagement by government representatives and other experts from China (Hong Kong SAR of China and Taiwan Province of China), India, Indonesia, Malaysia, Philippines, Singapore, Thailand, Viet Nam. The highly interactive workshop was characterized by lively exchanges, notable openness, and remarkable synergies among participants. As a result, the gathering generated numerous recommendations along with much enhanced engagement with the seahorse Appendix II listing in particular and marine fish listings in general.
- 4. This meeting was co-organized by Project Seahorse (host of the IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group), ZSL Philippines, the Philippines Department of Agriculture (DA)-Bureau of Fisheries and Aquatic Resources and the DA-National Fisheries Research and Development Institute. The workshop was conceived and funding obtained/invitations sent under CITES Decision 18.229 c (ii), but was delayed until after CoP19 due to the Covid-19 pandemic. Funding was provided by the United States from NOAA's National Marine Fisheries Service. The results of this workshop are now reported to the Animals Committee (at AC32), in support of newly adopted CITES Decision 19.231.
- 5. Forty-five people attended the four-day workshop, including representatives of CITES and fisheries Authorities from jurisdictions that were historically important net exporters or net importers along with technical experts from participating jurisdictions and representatives from intergovernmental and nongovernmental agencies: FAO, IUCN, UNODC, SEAFDEC and TRAFFIC.
- 6. After opening comments, Project Seahorse presented a new framework for analysing CITES implementation of Appendix II listings for marine fishes,<sup>1</sup> with the intention that it would guide workshop deliberations. To meet their obligations to CITES, Parties need to implement an Appendix II listing on all four Levels: Technical outputs (Level 1); Policy outcomes (Level 2); Field outcomes (Level 3); and Population impacts (Level 4).

<sup>\*</sup> The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

<sup>&</sup>lt;sup>1</sup> Vincent, A.C.J., S.J. Foster, S.J. Fowler., S. Lieberman and Y.J. Sadovy de Mitcheson. 2022. Implementing CITES Appendix II listings for marine fishes: a novel framework and a constructive analysis. Fisheries Centre Research Reports 30 (3), 189 pp. <u>https://projectseahorse.org/resource/framework-implementing-cites-for-marine-fishes/</u> - Executive summary available as CoP19 Inf. 90 (<u>https://cites.org/sites/default/files/documents/E-CoP19-Inf-90.pdf</u>)

Project Seahorse also reported on its investigation into the dried seahorse trade in Asia, carried out in response to Decision 18.229 c (i).<sup>2</sup>

- 7. The workshop was directed at supporting Parties to create situational analyses that could serve as overviews of progress and action plans for the future, as encouraged under Decision 19.299. Working in Party groups (thus fostering linguistic and cultural comfort), participants allocated one half day to each of four responsibilities: making NDFs, monitoring, making LAFs, and enforcement. For each theme, Project Seahorse offered new tools and guidance: (i) proposals for a simpler means of making NDFs; (ii) guidance and track sheets on monitoring; and (iii) suggestions on how the CITES *Rapid guide for the making of legal acquisition findings*<sup>3</sup> could be applied to seahorses with a draft matrix for evaluation. As well, UNODC (iv) provided input on opportunities for enhanced enforcement.
- 8. In addition to the meeting room discussions, participants took a full day field trip to Handumon, a fishing village in the province of Bohol, two hours boat ride away. Participants met with fishers, a trader and village leaders to discuss the area's long history of seahorse extraction and trade, and to explore their ideas for fishing seahorses sustainably. The field trip created an important opportunity for participants to bond over a shared experience, forging ties that further enhanced the positive tone of the meeting.
- 9. The workshop delivered three sets of outputs, emerging from participant discussion, reflection and feedback. First, participants offered a great deal of valuable comment and input about the new tools and guidance drafted by Project Seahorse (see workshop report in the Annex). Second, they built off that input to make a suite of thoughtful recommendations for Parties, the AC, SC and the Secretariat, many with broad implications for Appendix II listings in general (see workshop report in the Annex). Third, they used the situational analysis to lay the foundations for action plans with both short- and long-term initiatives (see workshop report in the Annex). In return, Project Seahorse undertook to revise the new tools and guidance, which will help Parties meet some of the recommendations, and was able to clarify some misconceptions from Parties.
- 10. The value of these highly encouraging workshop outputs (Level 1) will depend on their translation into policy outcomes within CITES and by Parties (Level 2) that translate good intentions into adaptive management strategies that allow for biologically sustainable trade of seahorses (Level 3). Participants are encouraged to share their analyses with their Party's agencies and departments, with other participants at the workshop, and with the larger CITES community and then to measure outcomes and monitor wild populations. Findings from the workshop will be fed into the NDF experts working group on marine and aquatic species.

<sup>&</sup>lt;sup>2</sup> SC74 Doc. 70.1: <u>https://cites.org/sites/default/files/eng/com/sc/74/E-SC74-70-01.pdf</u>

<sup>&</sup>lt;sup>3</sup> CoP19 Doc. 19 Addendum: <u>https://cites.org/sites/default/files/documents/E-CoP19-40-Add\_3.pdf</u>



AC32 Doc. 38.2 Annex

## Implementing CITES for seahorses – Asia region workshop

March 14-17, 2023 Bluewater Maribago Beach Resort Mactan Island, Lapu-lapu City, Cebu, Philippines

Hosted by:

Project Seahorse (PS) IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group (SPS SG) Zoological Society of London-Philippines (ZSL-PH)

### Co-hosted by the Philippines government:

Department of Agriculture - Bureau of Fisheries and Aquatic Resources (DA-BFAR) DA - National Fisheries Research and Development Institute (DA-NFRDI)

#### Preamble

All seahorses are listed in CITES Appendix II, which means international trade can continue but it must be managed to ensure it is sustainable, legal and traceable. However, research has revealed that the vast trade in dried seahorses – that largely provoked the Appendix II listing in 2002 – persists with worryingly high levels of illegal trade. Fishers in key source countries for the dried trade have reported continued declines of seahorse numbers despite increases in fishing effort, suggesting that current levels of dried exports are detrimental to wild populations. However, even while research has identified challenges, consultations with CITES Authorities and experts have revealed key opportunities for moving the dried trade toward sustainability and legality.

CITES Parties, at the 18<sup>th</sup> Conference of the Parties (CoP18, July 2019), adopted a Decision to "organize an expert workshop to discuss the implementation and enforcement of CITES for trade in Hippocampus spp., including the recommendations and outcomes from the Review of Significant Trade process, and propose practical steps to address implementation and enforcement challenges" [Decision 18.229 c(ii)]. In its role as technical advisor to CITES on seahorse issues, Project Seahorse secured funding to hold an expert workshop focused on Asia in support of this Decision. The CITES Secretariat has repeatedly worked with Project Seahorse, a joint venture of the University of British Columbia (UBC, Canada) and the Zoological Society of London (ZSL, UK), and host of the IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group (SPS SG), on multiple occasions on the basis of its robust technical and scientific expertise. Indeed, Project Seahorse has been instrumental in CITES' work with seahorses since 1999, and has provided important support to Parties towards implementing the Convention for seahorses.

The Asia region workshop on CITES implementation for seahorses focused on four key aspects of CITES implementation: non-detriment findings, monitoring in support of adaptive management, legal acquisition findings and enforcement. As summarised by the CITES Secretariat in SC74 Doc 70.1, Parties can meet their obligations to seahorses under the Convention by either "a) increasing their efforts to address illegal trade or b) ensuring that the seahorses being traded are sourced sustainably and apply the CITES Appendix II listing following a precautionary approach." The workshop engaged Parties and participants to explore and evaluate these options in support of implementing CITES for seahorses.

This Cebu meeting was conceived - and funding obtained/invitations sent - when CITES Decision 18.229 c)(ii) was still valid. Unfortunately, execution of the workshop was significantly delayed by the Covid-19 pandemic. CITES Parties, at the CoP19, decided not to carry over the unmet CoP18 Decision to have a workshop. Consequently, the Asia region workshop was not a formal workshop under the CITES framework. Nonetheless, it offered a wonderful opportunity for Asian CITES colleagues and experts to explore options and ideas for full implementation of the CITES Appendix II listing for seahorses, with many implications for other marine fishes.

The findings are being fed back to CITES in form of this workshop report to AC32, in support of newly adopted CITES Decisions 19.231 a) and b), which state: "The Animals Committee shall: a) in consultation with species experts, analyse and review the results of activities under Decisions 19.228 and 19.229, the report produced under Decision 18.229, paragraph c)(i), **and other relevant information**; b) develop recommendations to the Parties, the Secretariat, and relevant stakeholders, as appropriate, to ensure sustainable and legal international trade in seahorses.

## Participants

Forty-five individuals attended the four-day workshop. This included 16 representatives of CITES and fisheries Authorities from jurisdictions that were historically important dried seahorse net exporters (India, Indonesia, Malaysia, Philippines, Thailand and Viet Nam) or net importers (Singapore and China – Hong Kong SAR of China and Taiwan Province of China). Additional participants included 21 representatives from Food and Agriculture Organization of the United Nations (FAO), Southeast Asian Fisheries Development Center (SEAFDEC), TRAFFIC, regional members of the IUCN SSC SPS SG, technical experts from each of the participating jurisdictions, and 8 representatives from the organizing teams from Project Seahorse and ZSL-PH. Two representatives of the United Nations Office on Drugs and Crime (UNODC) joined the workshop virtually on the last morning.

#### Program

The working program is attached as Annex A to this report. In summary, the schedule was as follows:

- March 14 (Tuesday): welcomes, setting the stage, and non-detriment findings (NDFs)
- March 15 (Wednesday): monitoring and legal acquisition findings (LAFs)
- March 16 (Thursday): field trip to Handumon village, Getafe, Bohol
- March 17 (Friday): enforcement, situational analyses, closing

It was repeatedly stressed that while Parties are obliged under the Convention to ensure that export of species listed on CITES Appendix II are sustainable and legal, Parties have the sovereign right to meet obligations as they see fit. The guidance documents and ideas presented and explored at the workshop represent possible ways of approaching their responsibilities, offering tools to support their efforts, but are in no way prescriptive.

The structure of this report mirrors the working program.

## 1. Welcomes and setting the stage

The workshop was initiated with opening comments from Dr. Sarah Foster, program leader at Project Seahorse, focal point for global trade for the IUCN SSC SPS SG, and workshop lead. She was followed by recorded messages from DA-BFAR (Atty. Demosthenes R. Escoto, Director) and the CITES Secretariat (Dr. Karen Gaynor, Scientific Support Officer for fauna), and in person messages from ZSL-PH (Glenn Labrado, Acting Country Director), FAO (Dr. Kim Friedman, Senior Fisheries Resources Officer), SEAFDEC (Ms. Pattaratjit Kaewnuratchadasorn, Senior Policy Officer, Secretariat), and TRAFFIC (Glenn Sant, Senior Advisor Fisheries and Trade). Prof. Amanda Vincent, as Director of Project Seahorse and Chair of IUCN SSC SPS SG, then provided a brief background of seahorse trade/CITES listings and set the stage/ground rules for the workshop.

## 2. Framework for assessing CITES implementation

The workshop begun with a presentation of a new framework for analysing CITES implementation of Appendix II listings for marine fishes,<sup>4</sup> with the intention that it would underpin workshop deliberations. The framework is composed of four levels of progress towards full implementation of CITES Appendix II listings (Figure 1) and was presented to Parties at as CoP19 Inf. 90,<sup>5</sup> and in a CoP19 side event "Assessing implementation of CITES Appendix II listings for marine fishes":

<sup>&</sup>lt;sup>4</sup> Vincent, A.C.J., S.J. Foster, S.J. Fowler., S. Lieberman and Y.J. Sadovy de Mitcheson. 2022. Implementing CITES Appendix II listings for marine fishes: a novel framework and a constructive analysis. Fisheries Centre Research Reports 30 (3), 189 pp. https://projectseahorse.org/resource/framework-implementing-cites-for-marine-fishes/

<sup>&</sup>lt;sup>5</sup> https://cites.org/sites/default/files/documents/E-CoP19-Inf-90.pdf

- Level 1: Technical outputs (tools and capacity building): non-government stakeholders and governments develop products, tools, and activities to support implementation of CITES obligations by governments;
- Level 2: Policy outcomes (governance changes): governments use technical outputs (Level 1 implementation) to adopt changes in policies, rules, regulations, legislation, data deployment, and management protocols with consequences that are measurable but not at the field or population levels;
- Level 3: Field outcomes (practical changes): governments act on Level 2 policy outcomes, often using Level 1 technical outputs, to make changes in practical activities on vessels and at docks, traders' facilities, Customs sheds, courts, etc.;
- Level 4: Population impacts (biological changes): wild populations respond to field outcomes (Level 3 implementation) with lower mortalities, increasing numbers, better demographic balance or other biological improvements in their status.

To meet their obligations to CITES, Parties usually need to implement an Appendix II listing on all four Levels. A Party that (i) produces or accesses Level 1 technical outputs, and (ii) makes governance changes (policy outcomes) in Level 2 policy outcomes but (iii) fails to mobilise practical change (field outcomes) at Level 3 will be most unlikely to (iv) see the required biological changes (population impact) in Level 4. It is vital to understand that field outcomes involve direct interactions with fish, fishers, traders, and other actors in legal or illegal fisheries and trades; they cannot be effected only with meetings, computers and documents. In this theory of change framework, those Parties that implement listings at Levels 1, 2, and 3 should be able to detect biological changes (Level 4), as long as they are equipped to measure such change through monitoring. It is, of course, true that some Parties that implement listings at Levels 1, 2 and 3 may still struggle to see change at Level 4 because of pressures beyond those posed by over-exploitation and international trade. Again, though, Parties simply must act effectively at Level 3, field outcomes, to have a chance of seeing Level 4 population changes. This is true for all CITES Appendix II species.

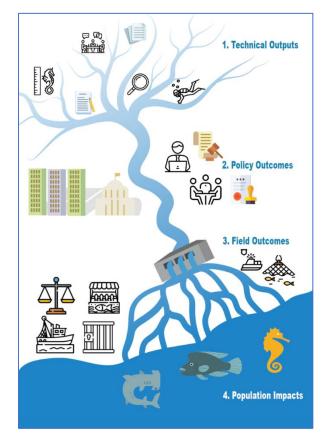


Figure 1. A visual representation of a framework for assessing implementation

## 3. Implementing CITES for seahorses

After presenting the generalised framework, Project Seahorse summarised CITES implementation for seahorses across its four Levels. Project Seahorse also summarized research and evaluation activities since CoP18, as foundations for the workshop.

## Seahorse case study

Seahorses are small and iconic, with many millions traded internationally each year for traditional medicine (dried), curios (dried) and ornamental display (live), and are the first and only fully marine fishes on Appendix II to have been through a Review of Significant Trade (RST) process.

The CITES Appendix II listing for seahorses may well have had a positive effect on the relatively few populations subject only to trade in **live** seahorses (which has switched to captive breeding in areas near the markets) but has done little or nothing beneficial for those subject to the enormous and dominant trade in **dried** seahorses (which persists at high levels, mostly illegally).

- Level 1 technical outputs: Collaboration with Parties and the Secretariat led to the production of crucial technical outputs: identification materials, NDF framework, interim means of making NDFs, monitoring guidelines, field studies and Party engagement in the form of briefings, workshops and discussions.
- Level 2 policy outcomes: The most common policy action has been in the form of export suspensions/bans, sometimes decided by a Party and sometimes recommended by CITES. Parties' have not prioritised engaging in management for sustainability and legality, such as making NDFs, developing and/or following through with national plans of action, or generating monitoring plans.
- Level 3 field outcomes: Parties have not effectively enforced the export suspensions (Level 3) and the dried trade that provoked the listings continues at very high levels, mostly through smuggling. In the instances where Parties did take policy action, they have struggled to translate those intentions into practical outcomes such as targeted enforcement of any fisheries rules (Level 3) and even more rarely tracked the effect of their interventions (Level 4).
- Level 4 population impacts: Fishers in key source countries for the dried trade in seahorses have reported continued declines of seahorse catch per unit effort, indicating that trade remains detrimental to wild populations. Parties need to tackle the challenge of indiscriminate capture of most seahorses in nonselective fisheries if they are to see population benefits to populations; the large supply of seahorses from nonselective gear may be driving the dried trade and not vice versa. Wild populations subject only to live trade may have benefited from trade transitions under CITES, as markets shifted towards cultured fish, but the dearth of population monitoring leaves that as a supposition only. Captive breeding does not necessarily benefit populations in the wild.

## Research and evaluation since CoP18

Project Seahorse shared the findings of the report on seahorse trade produced in response to Decision 18.229(c)(i), to understand (i) shifts in international trade patterns since inclusion of seahorses in Appendix II and the RST, (ii) implementation challenges and (iii) possible solutions. The research consisted of two parts, focusing on the live and dried trades. The live trade study was global in scope, with specific examination of the EU, which included the UK at that time, and the United States. Results are publicly available as a research report, <sup>6</sup> a primary manuscript<sup>7</sup> and in SC74 Doc 70.1.<sup>8</sup>

The Project Seahorse presentation focused on the dried trade study, which focused on Asia and examined implementation of the CITES listing in (i) six jurisdictions that have long been net exporters of seahorses but have declared national bans or suspensions for such exports and (ii) four jurisdictions that have long been key importers for dried seahorses. The study assessed the state of CITES implementation: progress, challenges, and possible ways to meet the challenges. Reports from

<sup>&</sup>lt;sup>6</sup> https://projectseahorse.org/resource/changes-in-the-international-trade-in-live-seahorses/

<sup>&</sup>lt;sup>7</sup> https://projectseahorse.org/resource/cites-makes-a-measurable-difference-to-the-trade-in-live-marine-fishes-the-pioneering-case-of-seahorses/

<sup>&</sup>lt;sup>8</sup> SC74 Doc. 70.1: https://cites.org/sites/default/files/eng/com/sc/74/E-SC74-70-01.pdf

each jurisdiction were made available for the workshop. An integrated summary of those reports was reported in SC74 Doc 70.1.<sup>9</sup> The summary included 36 recommendations to advance CITES implementation for dried seahorses, the top 11 of which were highlighted as immediate priorities in the report to SC74.

## 4. Situational analyses

The backbone of the workshop was the development – by government representatives, supported by technical experts – of a situational analysis that will help governments meet CITES Appendix II obligations for seahorses. This situational analysis was anchored in a PowerPoint template that tracked the four Levels of CITES implementation (see Section 2., above), with slight differences for net exporters and net importers. Participants grouped by jurisdiction to execute three steps:

1. Collaborate in assessing achievements, challenges, opportunities and concerns for implementation Levels 1, 2, and 3.

(a) Net exporters executed this analysis for the four themes of NDFs, monitoring, LAFs and enforcement.(b) Net importers executed the analysis for the four themes of probing NDFs on export permits (should they ever so wish), record keeping (imports, re-exports, seizures), probing LAFs on export permits (should they ever so wish) and enforcement.

- 2. Summarise the assessment for each of the four themes in a table about current status and desired status in three years.
- 3. Identify possible action in the short term, in 2023/2024, for the entire implementation analysis.

The analyses were built over the course of the workshop, in increments that aligned with the discussion sessions. Throughout, participants were encouraged to build the analyses within their group by drawing from anticipation and planning (e.g., hypothetical scenarios such as "If we started to do this now..."), past implementation of seahorse listings, implementation experience for other marine species listings, possible fisheries management protocols, and experiences from other regions. On the last afternoon, one spokesperson from each jurisdiction presented the summary tables for the four themes and proposals for action in 2023/2024.

Participants are encouraged to share their analyses with their Party's agencies and departments, with other participants at the workshop, and with the CITES community in response to CoP19 Decision 19.229.

## Workshop discussion, suggestions and ideas

The next four sections summarise findings from focused half days spent on each of NDFs, monitoring, LAFs and enforcement. The first two days were spent in groups from one Party, allowing for linguistic and cultural comfort and certain shared approaches. Such groupings worked very well, creating new connections within each cluster and also giving participants the comfort from which to reach out across Party lines.

#### 5. NDFs

## Project Seahorse presentation: a history of seahorse NDFs and easier guidance

Project Seahorse explained the history of making NDFs for seahorses, then introduced the draft of a new NDF framework for data and capacity limited situations.

The seahorse listing was adopted in 2002 with a then unusual 18-month delay in implementation (later echoed in the shark listings) to allow Parties time to develop means to make NDFs. Decision 12.54 offered the first interim and pragmatic guidance for making seahorse NDFs, callingfor a single minimum size limit for all seahorses in trade.<sup>10</sup>

<sup>&</sup>lt;sup>9</sup> https://oceans.ubc.ca/research/publications/research-reports/

<sup>&</sup>lt;sup>10</sup> https://cites.org/sites/default/files/eng/notif/2004/033.pdf

The RST then prompted Project Seahorse to develop the first NDF framework for seahorses (and for marine fishes) with CITES MAs and SAs in the Philippines, Thailand and Viet Nam.<sup>11</sup> Despite its methodical and measured approach, this first NDF framework has been little used, primarily because Parties feel they have inadequate information to meet its needs. Instead the RST for seahorses largely led to export suspensions, rather than NDFs.

Project Seahorse has been developing an easier approach to making NDFs for seahorses, applicable to many taxa, using an approach that maps answers to five questions in overlapping layers (5Q):

(1a) where have the species been found?
Then, for those areas,
(1b) what pressures do the species face?
(2) what measures are in place to manage the pressures?
(3) how well are the management measures implemented?
And, ultimately,
(4) what is happening to seahorse populations?

The numbering in this easier NDF framework aligns with the framework for assessing CITES implementation (section 2), with questions 1a and b/Level 1 reflecting technical outputs, question 2/Level 2 reflecting policy change, question 3/Level 3 reflecting practical application of such policy and question 4/Level 4 focused on the trajectory of seahorse populations (5Q in Figure 2, Levels in Figure 1).

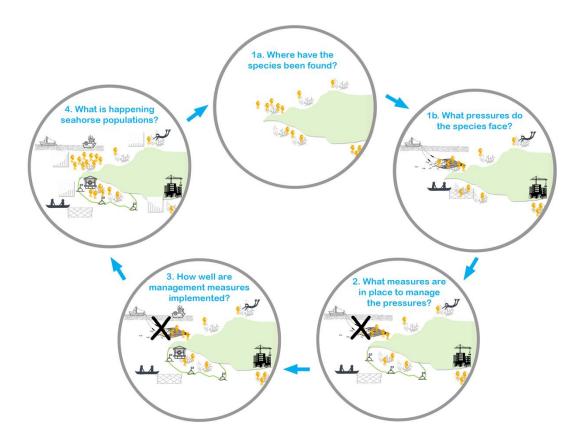


Figure 2. A 5Q framework for making easier NDFs for seahorses.

<sup>&</sup>lt;sup>11</sup> https://projectseahorse.org/resource/making-non-detriment-findings-for-seahorses-a-framework/

Answering the first four questions allows for a rough inference of possible population trends – and the capacity to make interim NDFs – even while monitoring is being developed to answer the fifth. Answering "what is happening to the seahorse populations" will provide new or strengthened information with which to revisit the first four questions, in an adaptive management framework.

The easier NDF framework consisted of three sections: **I. Determine which species are being exported** (recognizing that NDFs should be made at the species level, but that it also offers challenges for Authorities); **II. Map answers to the five questions in overlapping layers** (considering each species separately, or all seahorses together if information is not available for individual species); and **III. Use the mapping exercise to infer risk to wild populations from proposed exports and evaluate options** (and inform a management or action plan for seahorses).

## Participant engagement and feedback: Probing the draft new NDF framework

Participants tried out the easier NDF framework using large maps and acetate overlays. They were encouraged to map the answers to the five questions, using whatever information they could access, for one or more species. Given that all net exporters had trade suspensions for seahorses in place, none of the participating Parties were making NDFs for seahorses at the time of the workshop. However, the exercise created an opportunity to consider future NDFs should they legalize trade and to inform future management or conservation plans for seahorses.

#### Workshop discussion: making NDFs for seahorses

Working through the 5Q framework:

- The 5Q approach to NDFs (and Figure 2) is very helpful, especially when people are new to making NDFs, or in data poor situations.
- Working through this easier NDF evaluation together facilitated information and process exchange among CITES Management and Scientific Authorities (MAs/SAs) for the same Party, each with its own approaches to managing resources.
- It is important that the right people be in the room when doing this exercise, drawing on diverse expertise and backgrounds to capture the range of potentially useful information; Scientific Authorities can rarely complete the evaluation on their own.
- The 5Q approach provides a way to categorize information needed for an NDF, offers a means of identifying gaps in information needed for the NDFs, and helps highlight next steps.
- It would be good to include an easy pragmatic ranking system for the pressures especially if this is used as a tool to guide next steps/planning.
- Although each Party will decide when risk evaluation leads to a negative NDF, discussion on common metrics/ thresholds across Parties would be valuable.
- The less robust the information used to answer the 5Q, the more precaution should be taken when evaluating risk.
- Most jurisdictions found their existing work stopped at Q2, with no evaluation on Q3, whether management was being implemented; they had management measures in place but did not evaluate their utility.
- Authorities from net importing jurisdictions found that working through the new draft NDF framework improved their understanding of how exporting Parties make NDFs.
- Given that importing jurisdictions generally take export permits in good faith, without probing NDFs beyond possible species verification, it is unclear how they would approach assessing the authenticity/quality of the permits.

Stakeholder communication:

- Ranking systems for pressures and risk helps to communicate the findings back to stakeholders.
- The evaluation needs to be explicable and defensible to stakeholders (fishers, traders, exporters etc.) as it is the basis on which Authorities are making decisions that affect peoples' livelihoods.
- Authorities should consider working through the NDF framework even when they know the NDF will be negative. It helps in communicating the MAs decision to stakeholders. It also helps Authorities and stakeholders understand what is needed to move toward sustainable exports in the future, informing an action plan.

Choosing an approach to NDF:

Making NDFs does not have to be a one size fits all situation. Authorities may use more sophisticated approaches in
regions where they know more, but should be able to do a first pass of the easier 5Q approach in most places, even
with limited data.

Geographic variations:

- Authorities should be careful in extrapolating data for one region to other regions within their jurisdiction, because answers to the 5Q varied geographically.
- Authorities do not need information specific to seahorses to evaluate pressures; they can infer pressures from fisheries information (maps of fishing effort), catch information for other species in same areas, etc.
- Some Parties would like to make NDFs on a regional basis, hoping to make positive NDFs in specific areas where management may be working, and thus to allow exports from those populations, fisheries and trades. How would RST address regional NDFs if they could not be made for the country as a whole?

Management options:

- NDFs will be more tractable to make where seahorses are targeted, allowing for management measures like quotas and minimum size lengths.
- It will be more challenging to make NDFs when seahorses are captured incidentally. For non-target fisheries, the main management will be excluding gears from seahorse areas, in line with the many existing national decrees for no take marine protected areas and on bottom trawl exclusion zones.
- Several Parties are culturing seahorses with an interest in allowing export for commercial trade. Setting annual quotas on wild broodstock collection is considered important to limit the impact of aquaculture on wild populations.
- Release of cultured seahorses into the wild was proposed as a management option but can be very problematic if not done according to best practices, often adding pressures on wild seahorse populations due to disease transmission, genetic threats and community disruptions.<sup>12</sup> Best practices, such as those set out by the IUCN,<sup>13</sup> require careful assessment, planning and monitoring, to levels that are seldom feasible or realistic.

Capacity issues:

- While SAs in attendance had experience in making NDFs, few had done it for marine species.
- Greater political will and more human resources are key ingredients in making NDFs more quickly and effectively.
- The 5Q approach draws on information held by diverse entities (e.g., NGOs), thus expanding the available human resources for NDF evaluations.
- For some jurisdictions, the limiting factor is government capacity not information or tools especially with the increasing number of marine species on the Appendices.
- Parties lack budget resources to cover all the threatened species (terrestrial and aquatic), and also to address habitat degradation.
- Authorities can partner with other government agencies and/or external stakeholders (academia, NGOs, etc.) to collect and analyse information, then collaborate on NDF assessments.
- Centralizing data sharing among relevant government agencies would support CITES implementation for listed species (i.e., a national database for CITES listed species).
- Authorities should seek synergies with their CITES responsibilities for marine species, using research programs and management measures to improve knowledge and action for several CITES taxa at once.
- National NDF workshops could help map the answers to the 5Q for several CITES listed taxa.
- One way forward may be risk assessments for multi-species fisheries (e.g., bottom trawling), instead of a species by species approach.
- Net importers would benefit from CITES capacity building because much of it currently focuses on net exporters.
- Species+ can be used to assist importers in examining permits for example, in matching up named species and source country with species range.

## Recommendations emerging from workshop

Parties are encouraged to:

<sup>&</sup>lt;sup>12</sup> https://projectseahorse.org/resource/release-of-captive-bred-and-captive-held-syngnathids-into-the-wild/

<sup>&</sup>lt;sup>13</sup> https://portals.iucn.org/library/efiles/documents/2013-009.pdf

- Share means of making NDFs for any marine species with the Secretariat for posting on the CITES website<sup>14</sup> to assist other CITES Parties.
- Request the Animals Committee (AC) to provide guidance on the appropriateness of making positive NDFs for specific populations or regions in a country, when data are inadequate or management is too problematic to make positive NDFs in the rest of the country.
- Request the AC to consider a cost/benefit analysis of releasing captive-bred seahorses (and other species) for conservation of wild populations, and provide guidance on releases as a means of making NDFs.
- Promote synergistic approaches for meeting CITES obligations for the suite of marine species listed on Appendix II, mobilizing efforts by Parties, AC, CITES and the proposed NDF workshop.
- Request the AC and SC to clarify the role of importing Parties in probing the basis for (NDFs/LAFs) and authenticity of export permits.

Project Seahorse is encouraged to:

- Submit a revised version of the easier NDF framework, addressing participant feedback, to a future meeting of AC, and as one input into the NDF expert workshop being planned by CITES for late 2023.
- Feed results of discussion around NDFs into the marine working group for the NDF expert workshop being planned by CITES for late 2023.
- Cross check situational analyses against jurisdiction specific reports produced in support of Decision 18.229, paragraph c)(i), before finalising them for publication in April.
- Collaborate with TRAFFIC on adapting existing TRAFFIC tools to support implementing CITES for seahorses: i.e., M-Risk;<sup>15</sup> SharkTrace.<sup>16</sup>

# 6. Monitoring

## Project Seahorse presentation: Monitoring guidelines for seahorses

Project Seahorse emphasized that tracking populations over time is important to: 1) indicate need for conservation and management intervention, and 2) understand effectiveness of management. Monitoring is the only way to know if Parties have reached Level 4 implementation, and is an essential component of adaptive management. Monitoring wild populations is important whether Parties are allowing legal exports or not, to probe effectiveness of policy decisions.

Project Seahorse presented advice on monitoring seahorse populations in support of conservation and management, focused around three main approaches, in all of which Project Seahorse has expertise:

- Trade dependent monitor domestic and international trade volumes, including illegal trade, often by asking questions of fishers, primary buyers, consolidators and/or exporters.
- Fisheries dependent<sup>17</sup> monitor catches (ideally) or landings, at ports or onboard vessels, paying critical attention to changes in fishing effort.
- Fisheries independent<sup>18</sup> underwater surveys of seahorse populations through snorkel or SCUBA, preferentially using timed swims for seahorses, rather than transects.

Project Seahorse noted that monitoring wild populations of seahorses *in situ* is notoriously difficult and not likely to be feasible for many Authorities. Instead, Project Seahorse suggested that (fisheries dependent) port surveys would be the most pragmatic approach to sampling seahorse populations.

In an allied initiative, Project Seahorse noted that it has collaborated with Viet Nam's Institute of Oceanography on a data sheet for tracking use of wild broodstock by seahorse aquaculture facilities.

## Participant engagement and feedback: Trialing monitoring guidelines

<sup>&</sup>lt;sup>14</sup> https://cites.org/eng/virtual-college/ndf

<sup>&</sup>lt;sup>15</sup> https://onlinelibrary.wiley.com/doi/abs/10.1111/faf.12695

<sup>&</sup>lt;sup>16</sup> https://www.traffic.org/sharktrace/

<sup>&</sup>lt;sup>17</sup> https://projectseahorse.org/iseahorse/trends/landings/

<sup>&</sup>lt;sup>18</sup> https://projectseahorse.org/iseahorse/trends/underwater/

Participants worked to develop draft port monitoring plans for seahorses, considering how they would monitor landings and fishing effort repeatedly (developing a time series) at representative sites throughout their jurisdictions. Participants were encouraged to consider (1) where, when and how they would monitor and also (2) how the resulting data would be stored, analysed and used. They were also encouraged to consider whether monitoring seahorses would require a new initiative, or if seahorses could be added to existing monitoring efforts.

# Workshop discussion: monitoring seahorse fisheries, trade and populations

- Monitoring protocols need to include questions that drive reliable documentation of fisheries and trade effort.
- All monitoring plans need to be long term and have a geographic spread, with a recommended target of sampling of at least twice a year, every year, in as many ports as possible, covering all gears and species involved in the fisheries/trade.
- Captured seahorses are typically kept by the crew and not reported therefore they can be missed in port sampling efforts.
- Port monitoring poses great challenges, especially as seahorses are often landed at many different sites (not necessarily official ports) along very long coastlines.
- Data collection by or from primary buyers (placing the burden of proof on them) may be the most pragmatic approach because they generally gather seahorses from many fishers, often across multiple communities.
- Rapid surveys of fisheries and trades allow for a sense of seahorse distribution/hotspots, where long term monitoring can be focused.
- Buyer surveys, if properly designed, would automatically provide information across time and space.
- Ideally Authorities would obtain data from diverse sources e.g., from fishers to assess catch rates and from buyers to probe trade volumes to improve understanding of seahorse populations and allow cross validation of data.
- Even if they monitor differently, all jurisdictions/agencies/external stakeholders should collect, at minimum, an agreed set of metrics so data can be combined/compared across jurisdictions and even regions. Monitoring advice for marine fishes and invertebrates from FAO and IUCN shared with Parties in CoP17 Inf. 65 can provide a useful starting point.<sup>19</sup>
- Given the challenges around species ID, it may be necessary for buyers to collect information on multiple species as "Hippocampus spp.", in which case experts should sample species composition several times a year as an index of species-specific throughput by buyers.
- Existing fisheries monitoring plans reported by participants could be adapted to include specific attention to seahorses, removing their current categorization of "trash fish" or "miscellaneous fish". If such monitoring must be at the genus level, pragmatically, then experts should sample species composition several times a year as an index.
- Agencies that conduct monitoring that involve seahorses need to share their findings across agencies and across jurisdictions, at a level that is manageable for available capacity.
- Participants recognized catch and/or trade bans pose a challenge while data are needed to evaluate management options to move toward sustainable and legal trade, data are hard to collect while catch and/or trade are illegal that may be reduced by inviting outside collaborators (academia, NGOs) to help gather information.
- Alternative methods for sampling populations in the wild, for example via eDNA, should be explored.
- Conversion factors for the various forms of seahorse trade should be compiled and made available to Parties (e.g., wet weight to dry weight; number of dried seahorses per kilogram; weight of an individual seahorse in powdered form).

## Recommendations emerging from workshop

Parties are encouraged to:

- Share existing monitoring plans for dried seahorses with each other, including examples of what has been done, what has worked/not worked. Parties could request the Secretariat to create a depository for monitoring plans in support of adaptive management, similar to what it has created for sharing NDFs.
- Add seahorses to existing fisheries monitoring programs, making specific records for seahorses instead of including them under generic categories such as "trash fish", "miscellaneous fish" or "fish NES".

<sup>&</sup>lt;sup>19</sup> https://cites.org/sites/default/files/eng/cop/17/InfDocs/E-CoP17-Inf-65.pdf

- Create monitoring programs that include seahorses and other CITES species (e.g., sharks and rays, sea cucumbers, etc.) as fishers and buyers often catch/trade in multiple species.
- Collaborate with external partners (academia, NGOs, industry) in monitoring seahorse populations, especially where catch and/or trade are suspended/banned.
- Collaborate with dive groups, via iSeahorse.org, to obtain in-water data on seahorse distributions and populations.
- Find ways to analyse existing monitoring data and to disseminate their findings, perhaps through collaborations with external partners.
- Request the AC to collate advice on monitoring "invisible" species like seahorses (cryptic, low density).
- Request the AC to establish common metrics for monitoring seahorses (and other marine taxa) that all Parties could use, using CoP17 Inf. 65 as a starting point.<sup>19</sup>
- Request FAO to include seahorses and other CITES taxa (e.g., sea cucumbers and sharks) in their capacity building efforts for global assessments.

Project Seahorse is encouraged to:

- Work with Parties to develop monitoring protocol for primary buyers.
- Work with Parties and species experts to determine conversion factors for various forms of seahorse trade.
- Explore technological solutions for supporting seahorse species ID e.g., iSharkFin;<sup>20</sup> Fin Finder.<sup>21</sup>

#### 7. LAFs

# Project Seahorse presentation: LAF support for seahorses

Project Seahorse explained that an LAF is how the CITES Management Authorities (MAs) evaluate that seahorses being proposed for export were not obtained in violation of national laws. CITES has provided guidance on LAFs, in the form of Resolution Conf 18.7 adopted at CoP18, and in collaboration with FAO.<sup>22</sup> The most recent guidance for LAFs came in the form of the '*Rapid guide for the making of legal acquisition findings*,' adopted at CoP19, and contained in CoP19 Doc. 40 Add. Annex;<sup>23</sup> hereafter '*Rapid Guide*').

Project Seahorse introduced a first draft of a seahorse specific supplement to the '*Rapid Guide*' focused on making LAFs for wild seahorses entering dried trade, the dominant form of export, and presented a draft matrix to support LAF assessments for seahorses. It was based on the most common laws and regulations relevant to wild seahorse exports, in support of Point 3 of the '*Rapid Guide*', and on the most significant and feasible information needed to evaluate compliance with those laws and regulations, in support of Points 4 and 5 of the '*Rapid Guide*'.

## Participant engagement and feedback: Probing the draft new LAF framework

Participants worked through the draft matrix developed by Project Seahorse to support MAs in making LAFs for seahorses. They were asked to list the laws, regulations and management measures relevant to seahorse exports from their jurisdictions, and to consider information they would need to assess compliance with those laws/regulation/management measures. As with NDFs, none of the participating jurisdictions were issuing export permits/making LAFs for dried seahorses at the time of the workshop, again making this exercise hypothetical. Working through the matrix could, however, guide analysis of how Level 2 policy outcomes are being implemented as well as supporting any future plans to initiate legal exports of seahorses.

## Workshop discussion: making LAFs for seahorses

• In some cases, the Project Seahorse matrix supported Parties' existing approaches, while in others it offered suggestions on how to expand such approaches to marine species.

<sup>&</sup>lt;sup>20</sup> https://cites.org/eng/node/17039

<sup>&</sup>lt;sup>21</sup> https://apps.apple.com/us/app/fin-finder/id1624502516

<sup>&</sup>lt;sup>22</sup> https://www.fao.org/documents/card/fr/c/cb1906en/

<sup>&</sup>lt;sup>23</sup> https://cites.org/sites/default/files/documents/E-CoP19-40-Add\_3.pdf

- The process of completing the matrix could be simplified, a point that Project Seahorse will address in revising the guidelines.
- All jurisdictions had laws/regulations that should be considered when making LAFs for seahorse exports, some of them seahorse specific (size limits, seasons), but most of them broader but applicable to seahorses (MPAs, spatial and/or temporal restrictions on certain fishing gears, etc.).
- MAs clearly need to work with fisheries authorities to establish LAF processes for marine species.
- Traceability is key to making LAFs for exports and for processing re-exports (and in guiding and improving NDFs), but it can be challenging for seahorses, especially for packaged or processed products. Traceability is needed to the extent that it allows for exclusion of illegal activity, so Parties only have to go as far back in the supply chain as is practicable and needed to prove legal acquisition.
- There is a need to balance reality of what information exporters can provide with what is needed for making LAFs.
- A system to registering/accredit seahorse collectors, buyers, traders, exporters was considered to support making LAFs.
- Net importers were unsure how they would approach assessing the authenticity/quality of the permits with respect to LAFs (as with NDFs).
- Net importers stressed the need to consider the implementation challenges posed by re-exports (to avoid laundering illegal imports), particularly for stockpiles, and encouraged development of traceability systems for dried seahorses that could help importers to ensure legal re-exports.

# Recommendations emerging from workshop

Parties are encouraged to:

- Discuss and share approaches for making LAFs with other Parties. Parties could ask the Secretariat to create a depository for LAFs, similar to that they have created for sharing NDFs.
- Request the AC to consider best practice approaches for dealing with seahorse stockpiles.
- Request the AC to review options for seahorse traceability systems.

Project Seahorse is encouraged to:

• Revise its guidance for making LAFs for seahorses, then submit the revised version a future AC meeting.

## 8. Enforcement

## Project Seahorse presentation: Seahorse IWT and risk analysis

Project Seahorse highlighted the current massive illegal trade in seahorses, arising from challenges in enforcing the trade suspensions in place for exporting Parties that historically supplied 95% of exports. It then reviewed the illegal seahorse trade, including its new analysis of global seahorse seizures that had been reported in the media. A first draft of this analysis was made available to the Parties as CoP19 Inf. 96.<sup>24</sup> It confirms major trade routes, documents minimum volumes in illegal trade, and highlights patterns of trade that are useful in informing intelligence led enforcement efforts at points of export and import. The analysis will be submitted for publication in a primary journal, and to a future meeting of the CITES Standing Committee (SC).

## **UNODC** presentation:

The United Nations Office of Drugs and Crime (UNODC) joined the workshop via Zoom to present an overview of UNODC, its work on crimes against the environment (CAE), and its capacity building and support efforts. It made particular note of Operation Mekong Dragon and Wildlife Inter-Regional Enforcement (WIRE) Meetings. Operation Mekong Dragon is a comprehensive and coordinated action among Customs agencies in Asia and the Pacific. Initiated in 2018 by both China and Viet Nam Customs, it targets illicit cross border movement of drugs, wildlife, and timber products. WIRE creates an informal network among law enforcement authorities, intended to promote cooperation between African, Asian and Latin American countries. The 2022 WIRE included over 100 criminal justice sector professionals from the target regions.

<sup>&</sup>lt;sup>24</sup> https://cites.org/sites/default/files/documents/E-CoP19-Inf-96.pdf

UNODC then introduced risk-based control procedures for addressing CAE, and reviewing indicators of risk that jurisdictions could consider in combatting IWT.

# Participant engagement and feedback: laying a framework for enforcement

Participants embarked on a thought exercise focused on risk indicators and smuggling profiles led by UNODC. They worked in groups of three jurisdictions (two net exporters and a net importer) to collate information on trafficking in dried seahorses, working with what they knew and/or were comfortable discussing given the sensitive nature of the subject matter. They paid particular attention to source countries, transit countries, destination countries, methods of shipment, transportation routes, entry points, cities/locations of interest, businesses of interest, method(s) of concealment and cover load(s).

# Workshop discussion: enhancing enforcement for seahorses

- Species are often not identified on permits or in seizures but such information can be useful in verifying permits and providing key information on trade routes.
- Net importer jurisdictions noted they need an easy way to determine which Parties have voluntarily ended exports, so they can guide enforcement authorities, traders, etc., and suggested this information be registered in Species+.
- Participants noted the importance of sharing IWT data (i) among relevant government agencies within a Party, for example, sharing seizure records between MAs and SAs and (ii) between importing and source Parties, for example informing exporting Parties about seizures at ports of import.
- Participants noted the challenges in implementing fishing laws with subsistence fishers, especially when penalties were very severe; authorities hesitate to charge violators and courts would not impose them.
- The challenges posed by moving seahorses by post and allowing personal exemptions need to be explored as significant volumes of dried seahorses may be moved in such ways.
- Participants commented on the risk of laundering wild specimens as captive-bred, noting that a registry of approved breeding operations for Appendix II species would be of great value in supporting CITES Authorities when probing permits.
- When asked how species experts can contribute to enforcement, UNODC mentioned (i) the role of its scientific advisory committees in providing evidence-based policy information, (ii) the role of experts in identifying species and determining the value of the seizure in law enforcement and (iii) the role of experts in court cases.
- It would be helpful to explore the possibility of demand reduction/behavioural change in addressing seahorse IWT, even while recognising that much of the trade may be driven by nonselective fisheries rather than by demand per se.
- It would be useful to explore the role of genetic testing in obtaining geographic information on seahorse sourcing to support wildlife enforcement efforts.
- It would be useful to explore whether eDNA in air could be used to identify dried seahorses in suspected shipments/personal baggage etc.

## Recommendations emerging from workshop

Parties are encouraged to:

- Request the Secretariat to include information about voluntary trade suspensions on Species+, as a key resource Authorities consult when managing trade.
- Request the SC to explore how Parties are implementing personal exemption rules for seahorses (noting Resolution Conf. 13.7 (Rev. CoP17) which specifies four specimens per person).<sup>25</sup>
- Recognising that seahorses are often illegally traded with other CITES-listed species, request the SC to seek means of reducing IWT for multiple species simultaneously.
- Collaborate with experts to identify species of seahorses in any seizures, and make specimens available for research.

Project Seahorse is encouraged to:

- Create a template to support Parties to track and assess seahorse seizures.
- Prompt research on demand reduction/behavioural change in advancing CITES implementation for seahorses.

<sup>&</sup>lt;sup>25</sup> https://cites.org/sites/default/files/document/E-Res-13-07-R17\_0.pdf

• Contribute to research exploring the use of genetic tools in combatting seahorse IWT.

# 9. Field trip

Workshop participants spent Day 3 (Thursday 16 March) travelling to a village that had been deeply involved in seahorse fishing and trading until the CITES Appendix II listing triggered an automatic ban on seahorse catch and sale under Philippines law. The day was designed to allow participants to explore the implications of a ban on seahorse trade and the possibilities of sustainable use under adaptive management. The trip was centred around rural Handumon village on Jandayan Island in Getafe municipality, Bohol province, where Project Seahorse and ZSL Philippines have been active in community-based conservation since 1993. Participants departed by outrigger boat at 7 am, returning at about 7 pm.

On their arrival at 10 am, participants were welcomed by village and municipal leaders and hosted by KANAGMALUHAN, the Handumon People's Organization. They then divided into two groups and engaged in four activities: discussion with former seahorse fishers, meeting with a former seahorse trader, exchanges with the village council, and observing a meeting of the village savings association. In the first three activities, the workshop participants enquired about seahorse trade and marine conservation activities, that they might develop ideas for possibly re-opening trade with positive NDFs, while the fourth activity allowed the visitors to observe village capacity for organization and progress. The meetings were some distance apart in outdoor venues, allowing participants to explore the village and island.

Participants thoroughly engaged with the day's activities, leaving with an enhanced understanding of local seahorse fishing and trade. In addition, highlights included the spectacular and truly delicious lunch, dinner and snacks prepared by villagers in an outdoor kitchen and offered up with warm hospitality. Workshop participants also had the chance to snorkel on a reef during the return trip to Mactan, Cebu. The diverse aspects of the trip blended into a tremendous opportunity for participants to bond over a shared experience, forging ties that should have long-term benefits for implementation of the Appendix II listing for seahorses, and beyond.

## 10. Overview of situational analyses

Over the four days of the workshop, participants, grouped by jurisdiction, developed thoughtful collective analyses of how the Appendix II listing for seahorses was being implemented in their jurisdiction, and of the potential for further activity within the next three years. These situational analyses could serve as the basis for action plans in the jurisdictions, with participants encouraged to share thoughts and ideas with key colleagues at home. They also allow Project Seahorse an insight into progress and opportunities.

Listening to nine presentations in quick sequence led to a number of general observations about the Appendix II listing for seahorses:

- Rapporteurs repeatedly noted that the experience of working through implementation steps and options for seahorses was of broad general relevance for many taxa listed on CITES Appendix II, often identifying novel learning and ideas that had emerged.
- Presentations were exciting in that they summarized steady progress already achieved and identified many options for next steps.
  - In particular, participants noted actions they might take in 2023 and 2024, such as completing NDF evaluations; enhancing their understanding of seahorse distribution and pressures through new research; enhancing data and information sharing among agencies and Parties; enhancing collaboration among government agencies, NGOs, academics, *inter alia*, with respect to seahorse conservation and management; and developing monitoring programs for seahorses.
- Participants were open in reporting their experiences and ideas, creating a climate of communication and consultation for governments and experts, including across jurisdictions.
- Even while recognising the many challenges of implementation, jurisdictions identified many options and pathways to progress once political will is generated.
- It was encouraging how often rapporteurs mentioned plans for collaboration across agencies and other organizations as one way to effect better implementation, and cited many possible avenues for improved communication with NDFs, monitoring, LAFs and enforcement.

- For most jurisdictions, listing has resulted in many technical outputs (Level 1) and a number of positive policy outcomes (Level 2) but very few field outcomes (Level 3) and no understanding of population impacts (Level 4).
- There was a tendency to misinterpret policy outcomes (Level 2), which are anchored in meetings and documents, as practical outcomes (Level 3), which require hands-on application through field management and practical changes that directly connect with the fish.
- All jurisdictions will need to make persistent effort to bridge from technical and policy work to population recovery, recognising, for example, that establishing an MPA is still Level 2 until it is durably respected (Level 3) to a standard that allows fish recovery (Level 4).
- Engagement with NDFs was reported and planned far more than corresponding work with monitoring, LAFs or enforcement.
- A number of presentations referred to the need to reconsider regulations on bottom trawling and their enforcement, to reduce pressure on wild populations.
- The release of cultured seahorses was mentioned as one component of implementation but can impose pressures on wild populations. Where it is done, it should follow best practices, such as those set out by the IUCN.<sup>26</sup>
- Rapporteurs noted that the challenges of monitoring wild populations or indices of their abundance may be diminished by exchanging ideas and plans among jurisdictions.
- Rapporteurs noted that new technologies (such as eDNA monitoring) may offer some possibilities for overcoming considerable challenges of monitoring seahorse population health.
- When it came to enforcement, one challenge is to ensure that penalties for violations were proportionate, such that they would actually be imposed and serve as effective deterrents.
- Importers noted the need to consider what more could be done to help secure good implementation of the Appendix II listing, by addressing validity of export permits (ideally helped by central documentation of trade suspensions) and by helping to prevent smuggling.
- Project Seahorse heard the concerns about enforcement challenges posed by the small size of individual dried seahorses but noted that they are larger than pangolin scales, which are a clear concern of CITES Authorities.
- In light of the many options for action emerging from the presentations, Project Seahorse reminded government participants that both Project Seahorse and the entire IUCN SSC SPS SG are eager to help, as resources allow.

## **11.** Validating recommendations to support CITES implementation for seahorses shared at SC74

The discussions and situational analyses emerging from this workshop supported the findings of the dried trade study reported to Parties at SC74.<sup>8</sup> Further, the recommendations emerging from this workshop echoed 19 of the 36 recommendations presented to SC74 – namely recommendations 2, 3, 4, 5, 8, 10, 11, 12, 15, 16, 17, 19, 20, 23, 25, 26, 27, 31 and 35.

## 12. Acknowledgements

Project Seahorse would like to thank:

- The Principality of Monaco and the National Ocean and Atmospheric Administration of the USA who have been vital and tremendous supporters of advancing CITES for seahorses.
- Our generous and engaged co-hosts from the Philippines government the Bureau of Fisheries and Aquatic Resources (DA-BFAR) and the National Fisheries Research and Development Institute (DA-NFRDI).
- All participants who gave the gift of their time to attend the workshop including: the species experts and the government representatives from India, Indonesia, Malaysia, Philippines, Thailand, Viet Nam, Singapore and from China, Hong Kong SAR and Taiwan Province of China; representatives from TRAFFIC, SEAFDEC, FAO, UNODC.
- Our co-organizing partner, ZSL Philippines in particular Glenn Labrado, Myrtle Arias, Charity (Chai) Apale and Mary (Nesa) Medina.
- Rosemarie (Mia) Apurado and the generous people of Handumon and the Getafe municipality for hosting the field trip.

<sup>&</sup>lt;sup>26</sup> https://portals.iucn.org/library/efiles/documents/2013-009.pdf

# Annex A – Working program

# March 13

Participants arrive throughout the day Buffet dinner on beach front 5:00-9:00 pm

# March 14: Welcome, setting the stage, NDFs

Timing	Item
6:00-8:30	Breakfast
8:30-8:50	Welcome from co-hosts: BFAR, NFRDI and ZSL-PH
8:50-9:05	CITES Secretariat
9:05-9:15	FAO
9:15-9:25	TRAFFIC
9:25-9:35	SEAFDEC
9:35-10:00	PS & IUCN SSC SPS SG: Setting the scene for a successful workshop
10:00-10:15	Break
10:15-10:30	Framework for assessing CITES implementation
10:30-10:45	Seahorse case study
10:45-11:00	Introduce situational analyses
11:00-12:30	Situational analysis – begin to develop presentation
12:30-1:30	Lunch
1:30-1:45	Seahorse NDF guidance – a history
1:45-2:00	Seahorse NDF guidance – making it easier
2:00-3:30	Trying out the easier guidance
3:30-4:00	Break
4:00-5:00	Discussion – Opportunities and challenges in making NDFs for seahorses
5:00-6:00	Advancing situational analysis – NDFs
7:00-8:00	Dinner
8:00-9:30	Social gathering at hotel (specific location to be announced)

# March 15: Monitoring and LAFs

Timing	Item
6:00-8:30	Breakfast
8:30-9:00	Reflections from Day 1
9:00-9:30	Monitoring seahorse fisheries and trades – existing guidance
9:30-10:30	Drafting monitoring plans
10:30-11:00	Break
11:00-11:30	Discussion – monitoring seahorse fisheries and trades
11:30-12:30	Advancing situational analysis – monitoring
12:30-1:30	Lunch
1:30-2:00	Making LAFs – CITES guidance
2:00-2:30	Making LAFs – seahorse guidance
2:30-3:30	Making LAFs – national guidance
3:30-4:00	Break
4:00-5:00	Discussion – making LAFs for seahorses
5:00-6:00	Advancing situational analysis – LAFs
7:00-8:00	Dinner
8:00-9:30	Social gathering at hotel (specific location to be announced)

# March 16: Field trip to Handumon, Bohol

Timing	Item
6:00-7:00	Breakfast
7:00-9:30	Travel to Handumon by fast boat / Boat departs from hotel
9:30-10:00	Snacks
10:00-12:00	Activities
12:00-1:30	Lunch
1:30-3:30	Activities
3:30	Boat departs Handumon
5:00-7:00	Snorkelling and picnic dinner (we will stop on the way back to hotel)
7:30	Boat returns to hotel

# March 17: Enforcement, presenting situational analyses and wrap up

Timing	Item
6:00-8:30	Breakfast
8:30-9:00	Reflections on Day 2 and field trip
9:00-9:15	Seahorse IWT – overview and intro to mornings activities
9:15-10:00	Wildlife enforcement briefing / Introduction to break out group exercise
10:00-11:00	Break out groups – enforcement (coffee and food as needed)
11:00-11:45	Discussion – Enforcement
11:45-12:30	Advancing situational analysis – enforcement
12:30-1:30	Lunch
1:30-3:30	Presenting situational analyses
3:30-4:00	Break
4:00-4:45	Discussion – situational analyses
4:45-5:30	Where do we go from here? Next steps in implementing CITES for seahorses
5:30-6:00	Closing comments from ZSL, NFRDI & BFAR
7:00-8:00	Dinner
8:00-11:00	KARAOKE!

# March 18

Breakfast buffet 6:30-10:00 am Participants depart throughout the day