The Proceedings of the International Workshop on CITES Implementation for Seahorse Conservation and Trade

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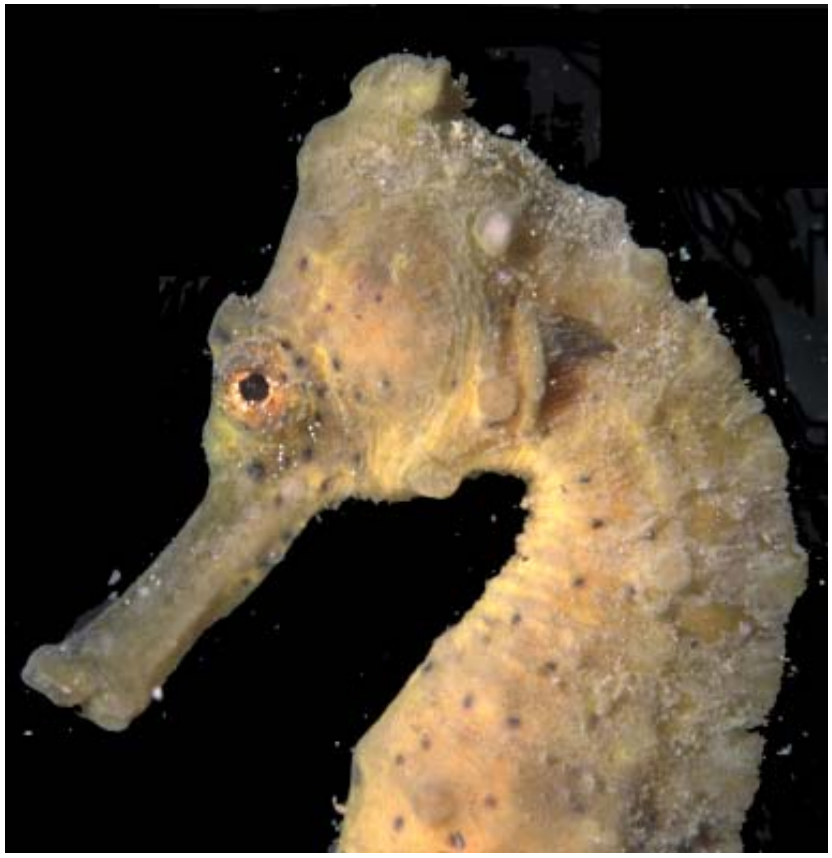

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The Proceedings of the International Workshop on CITES Implementation for Seahorse Conservation and Trade

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ACKNOWLEDGMENTS

The *Proceedings of the International Workshop on CITES Implementation for Seahorse Conservation and Trade* summarizes the outcome of a meeting held in Mazatlan, Mexico funded by the National Marine Fisheries Service (NOAA's Coral Reef Conservation Program and the Office of Protected Resources) and the U.S. State Department. The workshop was developed primarily to assist countries in identifying possible national management and monitoring strategies that could be implemented in their countries to promote sustainable harvest of seahorses and properly implement the CITES Appendix-II listing for these species.

The workshop would not have been possible without the dedicated efforts of the steering committee, Andy Bruckner, Nancy Daves, John Field, and Colin McIff (United States), Jorge Alvarez, Hesiquio Benitez and Paola Mosig (Conabio, Mexico), and Erendira García and Leonel Urbano (Dirección General de Vida Silvestre, Semarnat, Mexico), who were responsible for developing the agenda, objectives, work plan and working group tasks, identifying a venue, selecting participants, and pulling together background documents and the workshop proceedings. We are grateful to Beatriz Bugeda, Marcela Romero and Liliana Urbina from the International Fund for Animal Welfare (IFAW) , who helped with all logistical aspects of the workshop including planning and travel arrangements, conference support, and post-conference follow-up efforts. We are also grateful for the assistance provided by Sharanya Krishna-Prasad in the design, layout and formating of the Proceedings.

We would like to recognize the dedicated efforts of Andy Bruckner, Ernie Cooper, John Field and Oscar Ramirez Flores as chairs of the working group sessions and for compiling the working group recommendations. Project Seahorse contributed numerous background materials and data on seahorse population status, trade, and management mechanisms used by participants in formulating final recommendations. All of the workshop participants also need to be recognized for their contributions to the workshop, including the development and presentation of country reports and background information, and their cooperative efforts in addressing the terms of reference and developing recommendations within their respective working groups that could assist countries in sustainably managing and conserving their seahorse populations. We are grateful for the participation by the CITES Secretariat, in particular for discussions and presentations that assisted participants in understanding the role of CITES in conservation of seahorses, and in identifying the requirements of exporting and importing countries in proper implementation of the Appendix-II listing for seahorses.

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EXECUTIVE SUMMARY

The *International Workshop on CITES Implementation for Seahorse Conservation and Trade* brought together over 40 participants from 9 countries, with representatives from CITES Parties, the CITES Secretariat, fisheries agencies, non-governmental organizations, industry, academia and public aquariums. The goal of the workshop was to assist countries in identifying sustainable management options for seahorse fisheries and addressing the Convention on International Trade in Endangered Species (CITES) permitting requirements for trade under the new CITES Appendix II listing of all seahorse species that goes into effect in May 15, 2004. The workshop was organized by Mexico and the United States, with logistical support provided by the International Fund for Animal Welfare.

The workshop opened with welcoming speeches from Georgita Ruiz Michael, General Director of the Wildlife Division of Semarnat and John Field, U.S. Fish and Wildlife Service, DOI. Participants were asked to consider and assess practical means to:

(i) enhance collection and sharing of fisheries and population data;
(ii) identify short and long-term approaches to sustainably manage fisheries and bycatch;
(iii) evaluate detrimental and non-detrimental trade for wild-harvested and aquacultured seahorses;
(iv) develop pragmatic ways to inspect and validate shipments of live and dried seahorses.

Experts then gave presentations on the biology, taxonomy and distribution of seahorses; seahorse fisheries and bycatch; international trade; CITES requirements for Appendix-II trade; approaches to determine if and ensure that trade is non-detrimental; and identification tools to assist law enforcement in monitoring seahorse shipments. This was followed by national reports on seahorse fisheries and trade in 10 countries.

Three concurrent working groups met for one and a half days to discuss the following topics:

1) elements of a functional national seahorse management program;
2) enforcement and implementation of a CITES listing; and
3) non-detriment findings.

Recommendations were presented on the third day, which were refined with input from all participants.

Working group 1 and 3 recommended interim short-term voluntary measures to ensure non-detrimental trade for wild harvest that included a universal minimum standard length for export (i.e., 10 cm), with application of limits on the total volume of trade to current levels, and a cap on new licenses whenever there is clear evidence that seahorse populations are being overexploited and/or are diminishing. Other needs include efforts to map, characterize and assess seahorse habitats, and implementation of fishery dependent and fishery independent monitoring programs. An assessment of the percentage of existing protected seahorse habitat, and identification of additional protected areas based on seahorse life history and ontogeny, was thought to be a primary tool that could be used to make a non-detriment finding for non-selective (seahorse bycatch) fisheries. Other management options were assessed, with suggestions to test and evaluate different measures through an adaptive management process depending on the characteristics of each fishery.

Working group 2 suggested that certification or registration of captive breeding facilities, along with experimentation in methodology to tag captive bred seahorses is necessary to improve the capability of law enforcement at differentiating wild from aquacultured species. Until marking methods are developed, WG2 agreed that a paper document would suffice to distinguish wild and aquacultured seahorses. They concluded that the only practical way to monitor large shipments of dried seahorses is to report in weight, with conversion factors provided to assess numbers, with a recommendation that exporting countries require that traders separate shipments by species for permits to be valid. Separating seahorses from other tropical fish shipments would also assist law enforcement. Additional taxonomic work is needed to resolve the identification of similar species and to develop tools to assist in identification of live specimens.

Working group 3 also identified general criteria for acceptable and "non-detrimental" aquaculture operations, with emphasis on rearing capacity, prevention of release of aquaculture product into the wild, reliance on wild broodstock, and controls to minimize disease and mortality. The working group noted that CITES requires non-detriment findings for aquaculture operations producing F1 specimens from wild-origin broodstock, but agreed that there is no need for a standard minimum size to control exports of cultured seahorses at this time.

During the final session, workshop participants discussed and formulated 8 key recommendations to manage wild harvest and captive breeding operations, ensure non-detrimental trade, and facilitate implementation of the CITES Appendix II listing.

SUMMARY RECOMMENDATIONS

Recommendation 1: Minimum export size is a voluntary interim measure that could be used for making non-detriment findings. Complementary auxiliary and voluntary measures include a quota on the export levels at or below current levels, and a cap on the issuance of new licenses.

Recommendation 2: Countries with export fisheries should strive to obtain and make available certain minimum data sets to assist in validating adaptive management measures and making non-detriment findings. This includes improved documentation of catch and effort data along with basic information on population status and trends obtained via fishery-independent programs, or by sub-sampling commercial landings.

Recommendation 3: Countries should evaluate the extent of seahorse habitat that is currently closed to non-selective harvest and identify new areas as appropriate to protect vulnerable life stages. Comparing the extent of protected versus non-protected habitat will also enable CITES Scientific Authorities to gauge relative amount of seahorse refugia and the potential impact of exporting a given amount of seahorses taken as bycatch.

Recommendation 4: The long-term sustainability of seahorse fisheries and trade requires a systematic process to develop, implement and adapt management measures to meet resource and community needs. Countries should initiate efforts to improve communication, participation and cooperation among industry, resource management agencies, local communities, scientists and other stakeholders. Specific "sentinel" or indicator fisheries could be targeted to test and evaluate various management measures through an adaptive management process. Enforcement of existing laws (e.g., trawling bans in specific areas) is needed to improve the conservation of seahorses.

Recommendation 5: Exporting countries should adopt standards for seahorse exports, including uniform reporting volumes, separation of shipments of seahorses and other tropical fishes, and transparent packaging materials for live animals. Attempts should be made to resolve taxonomic discrepancies and develop tools and training materials for live seahorses.

Recommendation 6: Seahorse aquaculture operations should be inventoried and assessed to determine their production capabilities, degree of reliance on wild populations, and environmental concerns. Operations should be encouraged to develop marking systems to distinguish aquacultured seahorses from wild-caught specimens. Until marking systems are refined for aquacultured seahorses, national CITES authorities should rely on thorough paper documentation to distinguish between wild and aquacultured specimens. There is no need to impose a standard minimum export size for aquacultured seahorses produced in non-detrimental facilities.

Recommendation 7: Support is needed for publication of an updated Project Seahorse trade report, along with detailed individual country reports, as these documents could provide the baseline data needed by individual countries to identify fisheries of concern, determine the appropriate initial management options for their particular situation, and identify gaps in information and management needs.

Recommendation 8: Communication about seahorse management and the results of the present workshop should be addressed in a number of ways, including:

1) a CITES Notification to the Parties regarding the workshop proceedings;

2) communication about national seahorse management measures to the CITES Secretariat for dissemination and reference;

3) communication with the United Nations Food and Agriculture Organization (FAO), other UN Environmental Programme offices, regional fisheries management organizations (RMFOs) asking for capacity building and information sharing on seahorses and bycatch management issues; and

4)domestic coordination between non-governmental organizations (NGO's), museums, academia and CITES Authorities to gather relevant data on seahorse conservation status in national waters.

INTRODUCTION

The United States and Australia submitted a discussion document to the Eleventh Meeting of the Conference of the Parties to CITES (COP11; Nairoibi, Kenya; April, 2000) on trade in seahorses and other members of the family Syngnathidae. With this document, the United States and Australia intended to accomplish the following for Syngnathid conservation: 1) establish dialogue between Parties, concerned scientists, interested industry members, and affected communities; 2) further encourage continued research to clarify taxonomic discrepancies and compile species distribution and demographic data; and 3) further encourage the collection of data on international trade, catches by species, and species conservation status; and (4) promote actions to ensure the long-term viability of syngnathid populations..

As a result of this COP11 discussion paper, the Parties adopted decisions directed to the CITES Animals Committee and to the Secretariat to *inter alia* convene a workshop on syngnathid trade, biology, and conservation and subsequently report their findings at COP12.

With funding from a number of countries, nongovernmental organizations, and industry groups, the CITES Workshop on International Trade in Seahorses (May 2002; Cebu, Philippines) workshop was convened in May 2002 in Cebu, Philippines as per Decision 11.153. After reviewing the workshop proceedings, the CITES Animals Committee determined that some species of seahorse met the biological criteria for a CITES Appendix-II listing and that others qualified for listing by similarity of appearance to the threatened species. The Committee determined that such a listing would be useful for seahorse conservation and management, while syngnathid bycatch should be addressed through expanded management programmes and continued capacity building in source countries[1] .

Based on the Animals Committee's findings, the United States submitted a successful proposal to list all species of seahorses in Appendix II of CITES at COP 12 (3-15 November 2002; Santiago, Chile). This listing, which uses systems to monitor and regulate the international trade in all *Hippocampus* species, had an 18-month delayed implementation that became effective on May 15, 2004. The delay was intended to allow countries sufficient time to consider management approaches, monitoring programs, identification materials, and size limits to ensure a legal and sustainable seahorse trade under CITES. Since seahorses are extremely vulnerable to overfishing, and may now be the most widely and voluminously traded CITES animal species, the listing requires significant work in source countries, the CITES Animals and Nomenclature Committees, academia, and the conservation community. Since most of the current seahorse exports are from developing countries, it was imperative to strengthen collaboration and cooperation between developed countries and these nations to establish management approaches that will help ensure this trade is not detrimental to wild seahorse populations.

In addition to the listing of seahorses in Appendix II, four decisions were adopted at COP12 to further the species' management and conservation:

Decision 12.53[2] :

a) Parties are encouraged, where domestic legislation bans fishing of and trade in species listed in the Appendices, as a matter of priority, to allow sustainable trade in specimens of *Hippocampus* species under the provisions of the Convention;

b) Parties are encouraged to explore the benefits of trade certification options offered by independent organizations; and

c) CITES Management Authorities are requested to strengthen their collaboration and cooperation regarding management of *Hippocampus* species with appropriate fisheries agencies.

Decision 12.54[3] :

The Animals Committee shall identify a minimum size limit for specimens of all *Hippocampus* species in trade as one component of an adaptive management plan, and as a simple precautionary means of making initial non-detriment findings in accordance with Article IV of the Convention.

Decision 12.55[4] :

The Nomenclature Committee shall propose a standard taxonomy for species in the genus *Hippocampus*.

Decision 12.56:

The World Customs Organization is invited to develop harmonized codes for live seahorses, dried seahorses, live pipefishes (and pipehorses), and dried pipefishes (and pipehorses).

As one step to assist countries in implementing the Appendix-II listing, Mexico and the United States convened the *International Workshop on CITES Implementation for Seahorse Conservation and Trade* on February 3-5, 2004 in Mazatlan, Sinaloa (Mexico). This international forum, coordinated by the International Fund for Animal Welfare, brought together over 40 participants from nine countries, withrepresentatives from CITES Parties, the CITES Secretariat, fisheries agencies, non-governmental organizations, industry, academia and public aquariums. The goal of the workshop was to assist countries in identifying sustainable management options for seahorse fisheries and addressing the CITES permitting and law enforcement requirements for trade under the Appendix-II listing.

[1] CITES, 2002. Conservation of seahorses and other members of the family Syngnathidae. COP12 Doc. 12.43. Twelfth meeting of the Conference of the Parties to CITES. Santiago (Chile), 3-15 November 2002.

[2] See Working Group 3 report for discussion of these subjects.

[3] See Working Group 3 report for discussion of the minimum size limit issue.

[4] See CITES COP13 Doc. 9.3.1 for a discussion of standard seahorse taxonomy (http://www.cites.org/eng/cop/13/doc/E13-09-3-1.pdf)

TERMS OF REFERENCE FOR WORKING GROUPS

Working Group 1: *Elements of a functional national management program and ensuring adequate information for non-detriment findings*

1. Identify and list practical means for quantifying seahorse landings, accounting for harvest variation in time, space and gear types.

2. List elements of a workable licensing or reporting mechanism for fishermen, dealers, and exporters.

3. List elements of accurate fishery-independent population surveys for wild seahorses (design, gear, execution), considering habitat types and fishery location.

4. Evaluate the pros and cons of the proposed fishery management tools in Paragraphs 1 and 2 from a biological, economic and enforceability standpoint.

5. Identify pragmatic ways to change fishing effort or landings under an "adaptive management" approach for seahorses.

Working Group 2: *Enforcement of a CITES listing*

1. Discuss and list pragmatic ways to distinguish captive-bred and wild-caught seahorses.

2. List pragmatic ways to inspect shipments when handling and sampling large volumes of *Hippocampus.*

3. List and address the hurdles faced by national authorities when issuing CITES permits in the seahorse industry.

4. Evaluate the Draft CITES identification manual as a tool for law enforcement.

Working Group 3: *Non-detriment findings*

1. Discuss and define non-detrimental aquaculture for *Hippocampus* spp.

2. Discuss how monitoring data and size limits for wild seahorse fisheries can be interpreted to separate "detrimental" and "non-detrimental" trade.

3. Develop potential methods to monitor, interpret, and control the effects of non-selective fishing gear on *Hippocampus* spp. populations caught in non-selective fishing gear.