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

Eighteenth meeting of the Conference of the Parties
Colombo (Sri Lanka), 23 May – 3 June 2019

Species specific matters

CONSERVATION MANAGEMENT OF AND TRADE IN MARINE ORNAMENTAL FISHES

1. This document has been submitted by European Union, Switzerland and the United States of America.*

Overview

2. Marine ornamental fishes are coral reef fishes and live among, or in close relation, to coral reefs. They live in the tropical and subtropical Western Atlantic and Indo-Pacific oceans, typically occurring between 30°N and 30°S latitudes (NOAA, 2017: https://oceanservice.noaa.gov/education/kits/corals/media/supp_coral05a.html

3. Marine aquarium fishes are caught for display in public or private aquariums, of which there are about 1000 (ConsultEcon, 2008) and at least 2 mio. (Wabnitz et al., 2003) respectively.

4. According to recent studies, it is estimated that the number of species in the trade has increased: from around 1,000 species in 2001 (Wood, 2001) to 1,471 in 2004/05 (Rhyne et al., 2012) to 2,300 species currently (Rhyne et al., 2017). This number is based mainly on import data into the USA.

5. The trade volume of marine ornamental fishes has shown a strong growth in the past two decades. At the turn of the century, references on trade numbers state that between 24 and 27 million marine ornamental fish were being traded globally per annum (Wabnitz et al., 2003, Wood, 2001) whereas a recent review estimated that 1.5 billion ornamental fishes are now traded globally per annum (Stevens et al., 2017). Considering that the marine ornamental fish trade amounts to 10% of the entire marine/freshwater ornamental fish trade (Biondo, 2017, Monticini, 2010, Bartley, 2005, Wabnitz et al., 2003), this would result in approximately 150 million marine ornamental fishes being handled per annum.

6. These numbers do not take into account the millions of dead or discarded fish that fail to reach their final destination (Militz et al., 2018). The mortality rate in the supply chain is a major concern of this international trade (Stevens et al., 2017, Thornhill, 2012, Vagelli, 2011, Wabnitz et al., 2003).

7. The trade in marine ornamental fishes began in Sri Lanka in the 1930s as a small-scale fish-only-tank hobby. It then spread to Hawaii and the Philippines in the 1950s (Bruckner 2005). Today there are at least 45 countries trading in marine ornamental fishes worldwide and whole reef ecosystems being displayed (Rhyne et al., 2017, Wabnitz et al. 2003) with the United States of America (US), the European Union (EU) and Japan being the main importers (Biondo, 2017, Rhyne et al., 2017, 2012, Wabnitz et al., 2003). There is hardly any data for exports into Asia, Austral-Asia, Central and South America as well as Africa.

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* *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.*

8. There are currently no international legal mechanisms that specifically regulate international trade in coral reef fishes that are not included in the CITES Appendices. Those are *Hippocampus* spp., *Holacanthus clarionensis* and the *Cheilinus undulatus* listed in CITES Appendix II.

9. The wider ecological consequences of the extensive capture and collection of coral reef fishes for local consumption and the international ornamental trade are under-studied from both fisheries and ecological perspectives. The marine ornamental fish trade targets a variety of species ranging from the foundation of coral reefs (e.g., corals and live rock for aquariums and home décor) to top predators (e.g., sharks) which raises concerns of over-exploitation (Dee et al., 2014).

10. The Food and Agriculture Organization of the United Nations (FAO) and the World Association of Zoos and Aquariums (WAZA) state that only 25 marine ornamental fish species are being captive-bred in commercial numbers (Penning et al., 2009, Bartley, 2005). A list of captive-bred marine ornamental fishes published by the Marine Breeders Association (MBA) listed 15 species in 2013, 29 species in 2015 and 27 in 2016, which are readily availability in the US (Sweet, 2016a, b). From a hobbyist or research perspective, there are reports of between 100 and 330 species of marine ornamental fish bred in captivity. Of these, approximately 30–35 species are currently also in commercial production, albeit on a relatively small scale in the US (Sweet, 2016a, Fotedar and Phillips, 2011).

11. The monitoring of the trade in the past by certification schemes such as the Marine Aquarium Council (MAC), which attempted to encourage responsible and sustainable fishing, or the voluntary collection of information in a database under the Global Marine Aquarium Database (GMAD), failed and then ceased – in 2008 (GuideStar, 2014) and 2003 (Green, 2003) respectively.

12. In the US the Law Enforcement Management Information System (LEMIS) (LEMIS, 2009) database as well as the EU Trade Control and Expert System (TRACES) (TRACES, 2004), record the trade of non-CITES-listed species in a broad manner but with little specific information regarding the diversity and volumes of species traded (Biondo, 2018, 2017, Rhyne et al., 2017, 2012).

Conservation implications

13. The complications of the global marine ornamental fish trade are widely recognized (UNEP-WCMC, 2008). The lack of trade data is a recurrent theme. Only a handful of studies (Biondo, 2018, 2017, Rhyne et al., 2012, Smith et al., 2009, 2008, Wabnitz et al., 2003) have attempted to quantify the movement of non-CITES-listed aquarium fishes from origin to market. There are initiatives such as the www.aquariumtradedata.org which have provided tools to track the trade in ornamental fish.

14. For a lot of species of marine ornamental fishes, empirical data concerning the population status is missing. Almost 50% of coral reef fishes are listed in the categories of Not Evaluated and Data Deficient by the IUCN Red List (Biondo, 2018) which indicates that no assessment of extinction risk has been made. 'Until such time as an assessment is made, taxa listed in these categories should not be treated as if they were non-threatened. It may be appropriate (especially for Data Deficient forms) to give them the same degree of attention as threatened taxa, at least until their status can be assessed.' (Preamble IUCN, Red List, 2018).

15. The reproductive biology of many species is poorly known and the effects of international trade may vary depending on the reproductive strategy employed by those species.

16. The international trade in marine ornamental fishes is estimated to be worth over 1.5 billion US$. The proceeds include non-exported products, wages, retail sales revenue and associated materials (Biondo, 2017, Bartley, 2005). Some species sell for up to 20,000 US$ per specimen (Rhyne et al. 2012).

Recommendations

17. Switzerland believes that an examination of the conservation implications of the marine ornamental fish trade is warranted. We therefore recommend a workshop to consider the biological and implementation issues related to that trade. We believe that the workshop should result in a report that would inform recommendations of the Standing and Animals Committee to the Conference of the Parties at CoP19. Therefore, Switzerland recommends adoption of the following Decisions:

Directed to the Secretariat

The Secretariat shall, subject to available funds:

a) convene a technical workshop to consider the conservation priorities and management needs related to the trade in marine ornamental fishes worldwide with a particular focus on data from importing (consumer) countries and from exporting countries;

b) the Secretariat shall invite the members of the Animals and Standing Committee, representatives from range, exporting, and importing (consumer) states, and relevant inter-governmental and non-governmental organizations to participate in this workshop, to be held within 12 months of the conclusion of the 19th meeting of the Conference of the Parties; and

c) the Secretariat shall contract with appropriate technical experts to prepare documents on marine ornamental fishes conservation, trade data and management, enforcement, and biology for the workshop and shall invite workshop participants to submit the same.

The findings and recommendations of this workshop should be prepared by the Secretariat to the Animals and Standing Committee.

Directed to the Animals Committee

The Animals Committee shall consider the results of this workshop and make their own recommendations to the 19th meeting of the Conference of the Parties.

Directed to the Standing Committee

The Standing Committee shall consider the recommendations by the Animals Committee and make their own recommendations to the 19th meeting of the Conference of the Parties.

Directed to the Parties, non-governmental organizations, commercial traders, and donors

Parties and non-Parties, inter-governmental organizations, non-governmental organizations, commercial traders, and donors are encouraged to provide funding to the Secretariat for this technical workshop.

COMMENTS OF THE SECRETARIAT

A. This document highlights the need to assess the conservation impacts of the international trade in live marine ornamental fish. It also notes that the majority of this trade concerns species that are not listed on the CITES Appendices.

B. The Secretariat acknowledges that, with the increase of international trade in wild-sourced, live marine ornamental fish, both in terms of volume and species, and gaps in regulations, there may be a risk that some species are over-exploited for international trade.

C. As recognized by the authors in paragraph 8, the majority of marine ornamental fish species in international trade are not listed on the CITES Appendices. The CITES governing bodies have responsibilities for, and focus on, species that are included in the CITES Appendices. The Secretariat would, therefore, recommend caution when proposing additional work on non-CITES listed species, particularly when this could involve hundreds, if not thousands, of species, and require significant resources, as would be the case for the work being proposed in this document.

D. The document does not include cost estimations for implementing the draft decisions in paragraph 17, but the Secretariat considers that the proposed international meeting could cost USD 150,000 to 200,000, and that the proposed research and production of meeting documents could cost USD 70,000 to 100,000.

E. If Parties were to adopt the draft decisions suggested in paragraph 17, the Secretariat considers that it would not be necessary for the Standing Committee to review the results of the proposed workshop, recalling that

it considers regulatory and compliance matters related to listed species. Furthermore, and based on experiences with the implementation of Decision 17.260 on *Banggai cardinalfish* (see document CoP18 Doc. 82), the Secretariat notes that information by fishery stakeholders and the aquarium industry (importers, wholesalers, exporters, retailers) may be crucial in filling data gaps, and would therefore suggest including them in the proposed workshop. The Secretariat would therefore suggest amending the draft decisions proposed in paragraph 17 as follows:

DRAFT DECISONS

(Proposed new text is underlined; proposed deletions of text are shown in ~~strikeout~~)

Directed to the Secretariat

18.AA The Secretariat shall, subject to ~~available~~ external fundings~~~~:

a) convene a technical workshop to consider the conservation priorities and management needs related to the trade in non-CITES listed marine ornamental fishes worldwide with a particular focus on data from importing ~~(consumer) countries~~ and ~~from~~ exporting countries;

b) ~~the Secretariat shall~~ invite ~~the members of~~ the Animals ~~and Standing~~ Committee, representatives from range States, exporting~~,~~ and importing ~~(consumer) states~~ countries, fishery stakeholders. Industry representatives and relevant intergovernmental and non-governmental organizations to participate in this workshop~~, to be held within 12 months of the conclusion of the 19th meeting of the Conference of the Parties~~; ~~and~~

c) ~~the Secretariat shall~~ contract ~~with~~ appropriate technical experts to prepare workshop documents on marine ornamental fishes' biology; conservation status; trade ~~data~~ and management; applicable trade regulations; and enforcement~~, and biology for the workshop~~ and ~~shall~~ invite workshop participants to submit the contribute relevant information and expertise to the workshop ~~same~~; and

d) submit ~~The~~ findings and recommendations of this workshop ~~should be prepared by the Secretariat~~ to the Animals ~~and Standing~~ Committee.

Directed to the Animals Committee

18.BB The Animals Committee shall consider the results of this workshop and make ~~their own~~ recommendations to the 19th meeting of the Conference of the Parties.

~~***Directed to the Standing Committee***~~

~~The Standing Committee shall consider the recommendations by the Animals Committee and make their own recommendations to the 19th meeting of the Conference of the Parties.~~

Directed to the Parties, ~~non-governmental~~ organizations~~, commercial traders,~~ and donors

18.CC Parties ~~and non-Parties~~, intergovernmental organizations, non-governmental organizations, private businesses ~~commercial traders~~, and other donors are encouraged to provide funding to the Secretariat for implementing Decision 18.AA ~~this technical workshop~~.

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TENTATIVE BUDGET AND SOURCE OF FUNDING
FOR THE IMPLEMENTATION OF DRAFT RESOLUTIONS OR DECISIONS

According to Resolution Conf. 4.6 (Rev. CoP16) on *Submission of draft resolutions, draft decisions and other documents for meetings of the Conference of the Parties*, the Conference of the Parties decided that any draft resolutions or decisions submitted for consideration at a meeting of the Conference of the Parties that have budgetary and workload implications for the Secretariat or permanent committees must contain or be accompanied by a budget for the work involved and an indication of the source of funding. The authors of this document propose the following tentative budget and source of funding.