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

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MARINE ORNAMENTAL FISH TRADE

1. This document has been submitted by the Secretariat at the request of the Food and Agriculture Organization of the United Nations (FAO) in relation to agenda item 94.*

Background

2. Collection of information on the capture and movement of 'live fish' is proving complex — and value chain understanding is currently considered inadequate to inform us on shifts in the dynamics of these trades. Discussions at the seventeenth meeting of the Conference of the Parties (CoP17, Johannesburg, 2016) gave us numerous examples of 'live fish' in trade; species from Apogonidae (Banggai cardinalfish) for the aquarium trade; Napoleon fish traded live into seafood markets; and European eel for which wild juveniles are caught in the wild for grow out in aquaculture facilities.

3. This discussion is of particular importance in the context of trade in ornamental fish. The United National FAO has a commodities database that covers trade that in the last few years has been able to disseminate information on the trade split of ornamental fish sourced from freshwater from other fish. FAO has also continued its work on upgrading Harmonized System (HS) customs codes, in collaboration with the World Customs Organization (WCO) that had a range of success in 2012. More recently attempts to create further separate subheadings for ornamental fish in the HS revision of 2017 was less successful, a failure that has implications for the ease at which future shifts in the dynamics of trade in ornamental fish can be followed.

Ornamental Fish Industry

4. The ornamental fish industry is a good example of a diverse but pan global industry reliant on a broad range of fish and invertebrate species. The industry is active in more than 120 countries in the collection, breeding, import and export of ornamental fish and previous FAO data in 2011 suggested that exports at that time were worth approximately $330 million USD, with the number of fish traded estimated at approximately 1.5 billion fish per annum[1] (covering a total of 2 393 species of fish, corals and invertebrates in years spanning 1988 to 2003). An accurate update on this information is needed but difficult to obtain as statistics vary among countries in terms of data collected, format and reliability. As trade has generally been strong and displayed sustained growth over the available time-series' it is likely that exports of ornamental fish have likely expanded further.

Strengthen Ecosystem-Based Approaches in the Ornamental Fish Trade

5. There is great value in recognizing and supporting the efforts of ornamental fishery managers, in promoting the adoption and strengthening uptake of ecosystem-based approaches in the management and trade of ornamental fish. These approaches consider their future in terms of the environment, people and economics,

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1 *This figure is complicated by data being reported either in kg/tonnes or in numbers, or in some cases only in value.*

noting the value of these fisheries and the reliance of communities in developing coastal states, especially small island developing states, on these natural, renewable resources.

6. To strengthen the uptake of ecosystem-based approaches to management and the collection of better statistics from the ornamental fish trade, FAO has been in discussion with academics, ornamental fish trade experts and the private sector to collaborate in a study to assist in improving management and documentation of trade in the ornamental fish industry. Discussions to date have strengthened links among experts in the formation of a expert steering group[2] that includes national management authorities and traders in ornamental fish, academics and industry association partners who are interested in encouraging greater custodianship across ornamental fish value chains.

7. In initial discussions of the expert steering group, the following three objectives have been identified:

   a) To co-produce a report on the current knowledge on the aquarium trade, much of which is unknown or not centrally collated[3];

   b) Suggest and promote fishing and trade standards, through learning from best practice examples recorded globally; and

   c) Support the production of guidance for responsible ornamental fisheries and for documentation of trade in ornamental fisheries resources

8. The expert steering group has discussed a range of mechanisms for realizing these aims, the most promising of which is to support a four-year PhD studentship research project based on the priority tasks identified by the steering group.

9. Questions that for research in the four-year PhD studentship project could include:

   a) Collating information on fishery data including species traded (fin fish, corals and other invertebrates), quantities, origin and source (cultured or wild-caught) – in order to allow the development of risk-based approaches to identify those species which may be more vulnerable to trade[4]. This would also provide a baseline to assess potential environmental impacts, livelihood and income benefits associated with the trade

   b) Ascertaining and monitoring the volume and value of species in trade as an essential building block underpinning other initiatives to ensure the long-term sustainability and assess the conservation implications of the marine ornamental industry;

   c) Collating best practice examples of fishery and trade in order to support the development of guidance. For example, through industry-led initiatives, technological advances that include the use of wholesaler data to characterize ornamental fish entering the UK (Murray et al., 2012), character recognition software to read information from shipment documents imported into the US (Rhyne et al., 2012; 2017), use of the European database, Trade Control and Expert System (TRACES) to assess the origin, destination and volume of imported marine ornamental fish into Switzerland (Biondo, 2018), and analysis of freely available government statistics to assess trade value and origin (Pinnegar & Murray, 2019).

Outlook

10. The overall costing of funding such an initiative, which has implications for following the dynamics in the supply and trade of a range of 'live fish' has been developed by FAO and Cefas, and both agencies are

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2 Including representatives from Cefas, University researchers, the ornamental aquatic industry (Ornamental Fish International (OFI), Ornamental Aquatic Trade Association (OATA) UK, European Pet Organization (EPO), Pet Industry Joint Advisory Council (USA), Public Aquaria (World Association of Zoos and Aquariums, Association of Zoos and Aquariums), Regulatory bodies (from key exporting and importing countries), Non-government bodies (with a history of research and interventions related to the aquarium trade) and the Research community (academics and researchers with a history of ornamental fish research).

3 An update of the Global Marine Aquarium Database (GMAD) that was established by UNEP-WCMC, in collaboration with the Marine Aquarium Council (MAC) and with members of various aquarium trade associations in 2000.

4 The UNEP-World Conservation Monitoring Centre (UNEP-WCMC) and the Marine Aquarium Council (MAC) established the Global Marine Aquarium Database (GMAD) in 2000. This was the first attempt at establishing a standardised, global database to quantify trade volume and value, but it relied on volunteered data, had its limitations namely around accurate taxonomy, and it ceased in 2003 due to a lack of funding (Green, 2003).

interested in talking with any funders or partners to progress this vision. In addition, the suggested actions outlined in this information document, aligns well with the initiative described by the EU, Switzerland and the US in CoP18 InfDoc. 94 on “Conservation Management of and Trade in Marine Ornamental Fish”.

Contact

11. As the FAO Fisheries Focal Point on CITES and as one of the authors of this Information Document, Mr. Kim Friedman, a Senior Fisheries Resources Officer with the Marine and Inland Fisheries Branch of FAO is available to provide further feedback on any questions you may have. Mr. Friedman will attend CoP18 and can be contacted in person or reached on Kim.Friedman@fao.org.

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