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

Eighteenth meeting of the Conference of the Parties
Geneva (Switzerland), 17–28 June 2019

ADDITIONAL INFORMATION FOR CITES COP 18 PROPOSAL 45: IDENTIFICATION OF TEATFISH IN TRADE

1. This document has been submitted by Seychelles in relation to proposal 45.[1] Prop. 45 concerns the inclusion in Appendix II of the three teatfish species belonging to the subgenus *Holothuria (Microthele): Holothuria (Microthele) fuscogilva, Holothuria (Microthele) nobilis* and *Holothuria (Microthele) whitmaei* in accordance with Article II, paragraph 2 (a) of the Convention and satisfying Criterion A and B in Annex 2a of Resolution Conf. 9.24 (Rev. CoP17).

2. In response to queries, the Seychelles would like to call attention to the attached document Identifying Sea Cucumbers: implementing and enforcing an Appendix II listing of teatfish. The three proposed species are visually identifiable in trade, in both their wet and dried forms, so CITES Parties will be able to effectively implement this listing should it be adopted at CITES CoP18.

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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.*

Identifying Sea Cucumbers:

Implementing and enforcing an Appendix II listing of teatfish

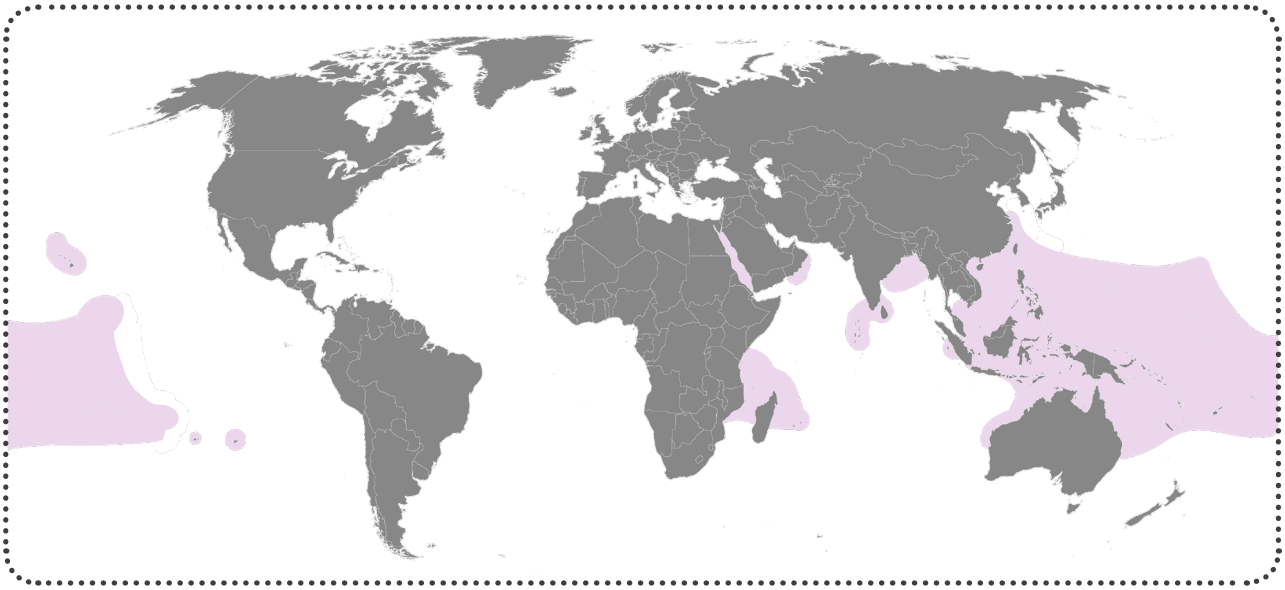
INTRODUCTION

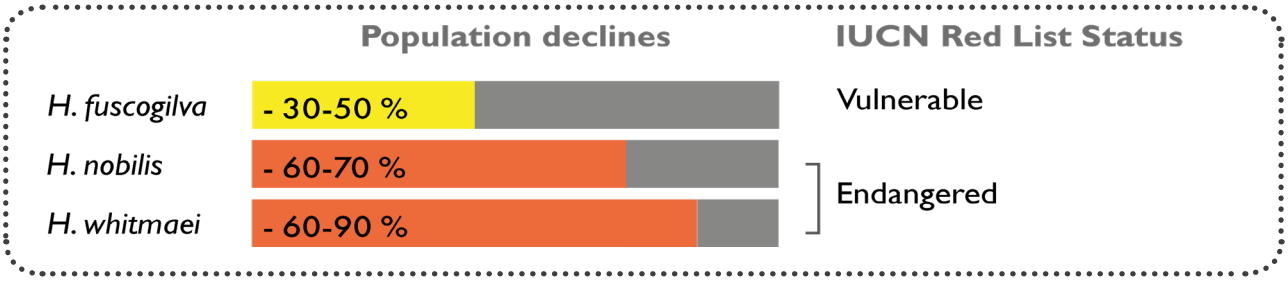
Sea cucumbers, or bêche-de-mer (the dried product), are a luxury good classified as one of the eight culinary treasures of the sea. On the international market, sea cucumbers can be sold at prices ranging from USD $145-389 per kg, an increase of 16.6% from 2011–2016. While demand for sea cucumbers remains high, stocks of some wild populations have dropped significantly. Parties to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) have proposed the white teatfish (*Holothuria fuscogilva*), and the two black teatfishes (*Holothuria nobilis* and *Holothuria whitmaei*) for listing in Appendix II at the 18th CITES Conference of Parties (CoP18). With population declines from 50-90%, not only are these species in need of international trade management to ensure continued trade is sustainably sourced, but they are also easily identifiable from other sea cucumber species - meaning CITES Parties can easily and effectively implement this potential listing.

Sea cucumbers are bottom dwelling species, residing along coral reefs and in association with seagrasses almost globally. Moving slowly across the ocean floor, sea cucumbers consume, among other things, fine organic matter and sand. Doing so ensures that nutrients are cycled back into the ecosystem, as well as the mixing of oxygen into the substrate - essential functions that provide the backbone of healthy marine ecosystems. Out of 1,200 known sea cucumber species, only approximately 70 species are found in the international trade. Of those found in trade, *H. fuscogilva*, *H. nobilis*, and *H. whitmaei* are among the most desirable and high value. While they are also consumed locally, trade in these species has steadily increased over the past 25 years. Growing demand and limited fisheries management has resulted in widespread population declines. Compounding the effects of unmanaged growth in catch and trade is the widespread loss of coral reefs globally. The additional pressure from this habitat loss - which is predicted to continue - exacerbates the effects of rampant overexploitation.

RANGE AND GLOBAL DECLINES

Teatfish range from eastern Africa and across the Indo-Pacific. All species have suffered declines across their range, meeting and in some areas, exceeding the CITES criteria for an Appendix II listing.





An Appendix II listing for teatfish would ensure that the international trade in these species will not contribute to further population declines, thereby helping to safeguard the long-term sustainability of livelihoods and trade, and the maintenance of healthy marine ecosystems across their range.

IDENTIFICATION IN TRADE AND ENFORCEMENT

Currently, there are no sea cucumber species listed in CITES Appendix I or II. If adopted by Parties at CoP 18, customs and enforcement officials will need to be able to identify teatfish species in trade to ensure they have the proper permits for import, export, or re-export.

Unlike other sea cucumber species that are very wrinkled or with deep ridges, teatfish are much smoother and have visible protrusions on the lower borders of their bodies, or 'teats', that help in identification in trade. Other species may have spikes, or warts (see examples on page **6**) but are easily differentiated from those of the teatfish that are slighter and more rounded than other species. In addition, the protrusions are only found around the lower border of teatfish species, as opposed to the entire body surface. Additionally, when dried for export, teatfish are cleaned differently than other sea cucumber species. Most others have either no cut, or a very small cut across the mouth or anus of the animal or along the underside of the animal. Teatfish are most commonly cut along the upper surface (dorsal surface) of the animal in order to prepare for processing.

All species of sea cucumbers proposed for listing on CITES can be visually identified in both wet and dry form, allowing Parties to effectively implement these listings at little to no additional cost.

Teatfish are generally visually identifiable and traders in Hong Kong, SAR are easily able to sort them by species when selling them (see photo below, with teatfish separated in the buckets at the bottom). While the three proposed species look very similar to each other, they are very easy to distinguish from other non-teatfish species.

The guidelines on the next page offer a few succinct steps that customs and enforcement officers can use to identify whether a shipment of sea cucumbers likely includes teatfish - giving them probable cause to hold the shipment for further inspection and testing.

DIFFERENTIATING BETWEEN THE DORSAL AND VENTRAL SURFACES OF A DRIED SEA CUCUMBER

Dorsal / upper surface

Ventral / lower surface

The dorsal and ventral surfaces of a dried sea cucumber can be easily and quickly identified. The dorsal surface is rounded and smooth, when compared with the slightly concave and textured bottom surface of the animal.

IDENTIFICATION FLOWCHART

Is the sea cucumber dried?

YES → Is the processing cut on the dorsal surface?

- YES → **LIKELY A TEATFISH** (go to page 5 for additional details)

- NO → **NOT A TEATFISH**

NO → Is the sea cucumber long and slender?

- YES → **NOT A TEATFISH**
- NO → Does the sea cucumber have warts or spikes all over the dorsal surface?
  - YES → **NOT A TEATFISH**
  - NO → Is the sea cucumber very wrinkled all over?
    - YES → **NOT A TEATFISH**
    - NO → Is the sea cucumber mostly smooth, with rounded or only slightly pointed teats at the ventro-lateral surface?
      - NO → **NOT A TEATFISH**
      - YES → **LIKELY A TEATFISH** (go to page 5 for additional details)

SPECIES PROFILES

White teatfish (*Holothuria fuscogilva*)

- Stout shape with obvious teats that are white compared to the rest of the animal
- Teats tend to be relatively long compared to black teatfish, and more pointed
- Body surface is smooth to slightly wrinkled
- When dried, usually a single cut on upper side of animal
- Lighter brown dorsal surface and ventral surface that is tan or brown colored

Black teatfish (*Holothuria nobilis*)

- Stout shape
- Powdery grey surface with black skin underneath
- Only slightly wrinkled with obvious teats, generally rounded
- When dried, is usually cut along the upper surface of animal

Black teatfish (*Holothuria whitmaei*)

- Flattened stout to somewhat elongated shape
- Powdery grey surface, sometimes with black markings
- Smooth or slightly wrinkled with obvious teats, not very long, and sometimes rounded
- When dried, usually has a single cut on upper side of animal

COMPARISON TO OTHER SEA CUCUMBERS – SPECIES NOT PROPOSED FOR LISTING

The steps on page 4 refer to other characteristics that may be seen in other sea cucumber species. The ones below are only examples and may be seen in other colors, or slightly different shapes - but highlight characteristics that customs officers can use to tell when a sea cucumber is not one of the three teatfish species.

Warts/spikes/protrusions across the dorsal surface

Other sea cucumber species, such as those shown above, have protrusions across the dorsal surface, causing a wart-like surface as opposed to the smooth surface of teatfish (who only have protrusions close to the ventral surface).

Long and slender shape/wrinkled

For other species that also do not have protrusions all over their surface, another visual clue is the shape of the specimen. Teatfish, as shown on page 5, are wide and chunky in shape. Others, as shown above, are long and slender and easily differentiated in trade. This example also highlights how a deeply wrinkled sea cucumber may look, as opposed to the smooth surface of teatfish.

CONCLUSIONS

Provisional identification of sea cucumbers that may be teatfish would lead to establishing probable cause in enforcement settings (suspected shipments without CITES permits or from boats suspected of fishing in a prohibited area). This is an essential first step in the implementation of any species listing within the CITES Appendices. The three teatfish species proposed for listing are easily identifiable in trade, whether dried, wet or frozen. If adopted at CITES CoP18, Parties will be able to use visual identification to implement these listings domestically. If listed in Appendix II of CITES, an additional, more comprehensive visual identification tool can be developed and genetic techniques for governments interested in this form of enforcement can be created as well.

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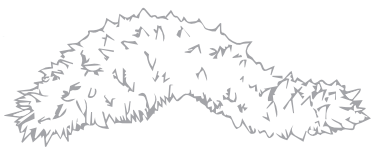

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