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

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Twenty-eighth meeting of the Animals Committee
Tel Aviv (Israel), 30 August-3 September 2015

Species trade and conservation

Conservation and management of sharks [Resolution Conf. 12.6 (Rev. CoP16)]

RESPONSE TO THE NOTIFICATION TO THE PARTIES NO. 2015/027. REQUEST FOR NEW INFORMATION ON FISHERY MANAGEMENT MEASURES FOR SHARKS. INFORMATION SUBMITTED BY FIJI

The attached information document has been submitted by Fiji in relation to agenda item 17.1*

* *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.*

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Re : Information to be submitted for the twenty-eighth meeting of the Animals Committee on the conservation and management of sharks

Agenda number 28.17

Dear CITES Secretariat,

We kindly request the Secretariat to draw to attention the attached information document on *Mobula* spp. under *Agenda number 28.17*. This document has been prepared to support document **AC28-17.1.2**, recommending that the Parties review the threatened status of *Mobula* spp.:

Citation from CITES document AC28-17.1.2 (p. 3):

"14. The Animals Committee is invited:

*c) to recommend that the Sharks working group and the Parties review the role of trade in contributing to the threatened status of the **Mobula devil rays**, Guitarfishes, Threshers and Tope shark, all of which have been included for many years in the lists of species of concern produced by CITES and FAO, undertake M-risk assessments for species that do not yet have them, and discuss whether these species would benefit from more detailed attention under CITES;"*

- Also note reference to "***Devil rays Family Mobulidae***" and "***Spinetail mobula: M. japonica***" under *Table 1. Summary of shark and ray species of concern* in same document.
- Additional information on the Endangered status of *Mobula mobular* has been presented under **AC28-17.1.1 Annex 5**.

Yours sincerely,

….ABatibasaga…..

Aisake .T. Batibasaga (Mr).

Member-Fiji CITES Scientific Committee.

Information on the threatened status of *Mobula* spp. for consideration under AC28-17:

There are nine extant *Mobula* (Family: Mobulidae) species:

	Scientific Name	Common Name	IUCN Red List™ Category
1.	*Mobula tarapacana*	Sicklefin Devil Ray	Data Deficient
2.	*Mobula japanica*	Spinetail Devil Ray	Near Threatened
3.	*Mobula mobular*	Giant Devil Ray	Endangered
4.	*Mobula thurstoni*	Bentfin Devil Ray	Near Threatened
5.	*Mobula eregoodootenkee*	Longhorned Pygmy Devil Ray	Near Threatened
6.	*Mobula kuhlii*	Shortfin Pygmy Devil Ray	Data Deficient
7.	*Mobula hypostoma*	Atlantic Pygmy Devil Ray	Data Deficient
8.	*Mobula rochebrunei*	Guinean Pygmy Devil Ray	Vulnerable
9.	*Mobula munkiana*	Munk's Pygmy Devil Ray	Near Threatened

- *M. japanica* and *M. tarapacana* fisheries, driven by the high value of gill plates in international markets (Dewar 2002, Clark *et al.* 2006, White *et al*. 2006, Heinrichs *et al*. 2011, Couturier *et al*. 2012), are driving population depletion throughout most of their range and poses the greatest threat to these species.
    - Mobulid gill plates are used in an Asian health tonic purported to treat a wide variety of conditions (Heinrichs *et al*. 2011, Couturier *et al*. 2012). Recent surveys suggest an alarming escalation in demand for mobulid gill plates in China (O'Malley *et al.* in review), with the estimated number of mobulids represented in Guangzhou, China gill plate markets more than doubling from early 2011 to late 2013.
    - Historically, subsistence fishing for *M. japanica* and *M. tarapacana* occurred in isolated locations with simple gear, limiting the distance and time fishermen could travel to hunt. In recent years, however, fishers have begun targeting *M. japanica* and *M. tarapacana* with modern fishing gear and expanding their fishing range and season, primarily in response to demand for highly valued dried gill plates (Dewar 2002, White *et al*. 2006, Rajapackiam *et al*. 2007, Heinrichs *et al.* 2011, Lewis *et al.* in prep., Fernando & Stevens 2011). *M. tarapacana* gill plates sell for up to US$566/kg and gill plates from *M. japanica* and other unidentified *Mobula* spp. sell for US$290/kg for (Taobao.com converted to USD with exchange rates from xe.com).
- Life history and behavioural characteristics make mobulid rays, including *M. japanica* and *M. tarapacana*, highly vulnerable to fishing pressure with limited ability to recover from a depleted state (Couturier *et al*., 2012; Dulvy *et al*., 2014).
    - Mobulid rays are among the least fecund of all elasmobranchs (Dulvy *et al*. 2014), giving birth to only one offspring per pregnancy.
    - *M. japanica* and *M. tarapacana* have worldwide distributions, with populations that are sparsely distributed and believed to be highly fragmented (Clarke et al. 2006, White et al. 2006).
    - *M. japanica* and *M. tarapacana* are highly migratory as documented by satellite tagging studies (Croll *et al.* 2012, Thorrold *et al*. 2014, Francis *et al*. in review). This highly migratory behaviour combined with predictable aggregations in easily accessible locations and depths, makes both

M. japanica and *M. tarapacana* vulnerable to multiple fisheries, both targeted and bycatch, in coastal areas and in the high seas (Couturier *et al.* 2012, Croll *et al.* 2012, Thorrold *et al*. 2014).

- Though global population numbers are unknown for *Mobula* spp., global, genus-wide declines have been recorded (Ward-Paige *et al*. 2013). Dramatic declines in mobulid catches have been documented in some areas suggesting serial depletions through over-fishing (Couturier *et al.* 2012). Of particular concern is the exploitation of this species from within critical habitats, well-known aggregation sites, and migratory pathways, where numerous individuals can be targeted with relatively high catch-per-unit-effort (Heinrichs *et al*. 2011). Moreover, reports from fishermen and traders of mobulid gill plates indicate that *Mobula* gills are becoming harder to source, with prices escalating as the supply continues to dwindle (O'Malley *et al*. in review).
    - *Eastern Pacific:* Decline of 78% in the abundance of mobula rays at Cocos Island, Costa Rica over the past 21 years (White *et al*. 2015). Cocos Island is one of the world's oldest Marine Protected Areas, yet faces pressures from multi-nation fisheries in the eastern tropical Pacific, which is well within the home ranges for these species (White *et al*. 2015). In northern Peru (Tumbes region) official landings reports from Instituto del Mar del Perú (IMARPE) show a downward trend in *Mobula* spp. landings from a peak of 1,188t in 19999 to 135t in 2013, a decline of 89% (IMARPE, 2014). *Mobula* catch data from Inter-American Tropical Tuna Commission (IATTC) purse seine fisheries in the Eastern Pacific between 1998-2009 show a steep decrease in landings from a peak of > 80 t in 2006 to 40 t three years later in 2009 (Hall & Roman, 2013).
    - *Indo-Pacific*: In Indonesia catches of *M. tarapacana* and *M. japanica* recorded from the country's three largest mobulid landing sites (Tanjung Luar, Lombok; Lamakera, Solor; Cilacap, West Java) declined dramatically over 10 to 15 years despite evidence of increased directed fishing effort in Tanjung Luar and Lamakera (Lewis *et al*. in prep). *M. tarapacana* landings declined by 77% in Cilacap comparing landings from 2001-5 to landings in 2014 and by 99% in Tanjung Luar from 2001-5 relative to 2013-14. Over the same time periods, *M. japanica* landings declined by 50% in Cilacap and 96% in Tanjung Luar. Landings of *Mobula* spp. in Lamakera, primarily *M. tarapacana* and *M. japanica,* declined by 86% from 2002 to 2014.
    - *Indian Ocean*: In India, *Mobula* catches have declined in several regions (including Kerala, along the Chennai and Tuticorin coasts and Mumbai) despite increased fishing effort (Couturier *et al*., 2012; Mohanraj *et al*., 2009). Fisheries surveys off Mumbai revealed maximum *Mobula* landings of 6.3t in 1993-1995, dropping to 3.1t in 2002-2004 (Raje & Zacharia, 2009). Sri Lankan fishers have reported declines in Mobula catches over the past five to ten years despite increased targeted fishing pressure (D. Fernando, pers. comm.). In 2011 it was estimated that over 50,000 Mobula are landed annually in Sri Lanka, primarily M. japanica (86%) and M. tarapacana (12%) (Fernando & Stevens, 2011).
    - *Atlantic Ocean*: In Guinea annual mobulid catch was recorded as 3 to 18t per year from 2004 to 2009, with increases attributed to increased fishing effort, including expansion fishing are to include waters off Sierra Leone and Liberia (Doumbouya, 2009). Recent surveys in Guinea between 2014 and 2015 report that *Mobula* landings have declined since 2009 (F. Doumbouya, pers. comm.).
    - *Mediterranean*: In Gaza, Palestine, a new report documents directed catch and bycatch of *M. mobular* with 370 landed specimens recorded in 2013, 30 specimens in 2014, and 86 specimens in 2015 (Abudaya *et al*., in prep). While these mobula rays are primarily utilized locally for their meat, this report confirms the emergence of a gill plate export trade from this region in 2013 (Abudaya *et al*., in prep).
- A study conducted by Francis (in review) revealed that *M. japanica* post-release survival from purse-seine catches in New Zealand is low – 4 of 7 tagged individuals died within 2-4 days of release – further increasing threats to these species from bycatch fisheries.
- Fisheries monitoring and regulations are lacking. The top five *M. japanica* and *M. tarapacana* fishing countries (Sri Lanka, India, Peru, Indonesia and China), which account for an estimated 95% of the world's recorded *Mobula* spp. catch (Heinrichs *et al*. 2011), have no regulations or monitoring of *M. japanica* and *M. tarapacana* (and other mobulid species) fisheries. Only one Regional Fishery

Management Organization (RFMO) (IATTC, 2015) has passed a resolution to regulate catch of *Mobula* spp.

- The lack of international customs tariff codes to distinguish *Manta* spp. and *Mobula* spp. from other traded seafood products increases difficulty in effectively assessing the scale of international trade of these vulnerable species.
- Recent genetic studies conducted by Poortvliet *et al*., 2015 reveal the close relationship between the genus *Mobula* and *Manta* (already listed under CITES Appendix II).
- Parties to the Convention on Conservation of Migratory Species (CMS) have recognized *Mobula* spp. as migratory species at high risk of extinction, adding all species from the genus *Mobula* to Appendix I and II at the 11th Conference of the Parties in Quito, November 2014. While Appendix I obligates Parties to strictly protect the species, to date most CMS Parties have not adopted national protections for *Mobula* and several countries engaged in mobulid fisheries and trade are not party to CMS.

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