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

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Twenty-ninth meeting of the Animals Committee
Geneva (Switzerland), 18-22 July 2017

Species specific matters

Aquatic species

FRESHWATER STINGRAYS (FAMILY POTAMOTRYGONIDAE)

1. This document has been prepared by the Secretariat.

2. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted four decisions on freshwater stingrays (family Potamotrygonidae) as follows:

Directed to range States of freshwater stingrays

17.246 Range States of freshwater stingrays (family Potamotrygonidae) are encouraged to continue to exchange information on the conservation and management of, and trade in these species.

17.247 Range States of freshwater stingrays (family Potamotrygonidae) are encouraged to include all species of concern, as identified by the Animals Committee, in Appendix III, and consider options for including species in Appendix II.*

* *Species of priority concern as identified by the Animals Committee in the Annex to document AC28 Doc. 18:*

– Paratrygon "aiereba" *species complex (Amazon and Orinoco basins)*
– Potamotrygon leopoldi *(Amazon basin)*
– Potamotrygon schroederi *(Amazon and Orinoco basins)*
– Potamotrygon brachyura *(other catchment basins)*
– Potamotrygon "motoro" *species complex (all catchments)*

Note that the priority species identified include both undescribed species and clusters of species.

Directed to Parties and interested organizations

17.248 Parties and interested organizations are encouraged to conduct or promote research concerning the captive breeding and sustainable use of freshwater stingrays (family Potamotrygonidae) at the global level, including the species involved, the numbers produced, the source of parental stock, and the international trade dynamics and market developments, and the collaboration between Parties with ex situ *breeding operations for freshwater stingrays and those with* in situ *conservation programs.*

Directed to Parties, the Secretariat and interested organizations

17.249 The Secretariat, subject to external funding, non-governmental organizations, intergovernmental organizations [including the Food and Agriculture Organization of the United Nations (FAO)] and Parties are encouraged to support range States in the mathematical modelling of population trends for freshwater stingrays (family Potamotrygonidae) and the Secretariat shall report any such activities to the Animals Committee as appropriate.

3. At the time of writing of this document (May 2017), no external funding has been made available for the implementation of Decision 17.249. To facilitate the implementation of this Decision and in consultation with the Animals Committee, the Secretariat compiled an inventory of available data on freshwater stingray populations. To this end, the Secretariat invited experts, range States and interested organizations to submit relevant information on freshwater stingrays to the Secretariat by May 2017.

4. At the time of writing of this document (May 2017), five replies have been received from freshwater stingray experts from Argentina, Brazil, Colombia, and Peru. The information, in the language as received, is presented in Annexes 2 to 9 to the present document. A summary of this information is presented in the Annex 1. The Secretariat will bring any further submissions that it may receive to the attention of the Animals Committee.

5. In its response to the Secretariats' invitation, the CITES Management Authority of Colombia additionally sent a formal letter elaborating on its ongoing work towards the conservation of freshwater stingray populations. This work, carried out in partnership with other institutions, includes population censuses, acoustic telemetry experiments, ichthyologic inventories, and the study of phylogeography and population structure in order to better understand the taxonomy and genetics of the species. Lastly, Colombia expressed its intention to collaborate in the development of the freshwater stingray population trend models mentioned in Decision 17.249.

6. Up-to-date information for assessing productivity of *Potamotrygon motoro* (and respective data sources) can also be found in the 'Fifth FAO Expert Advisory Panel for the Assessment of Proposals to amend Appendices I and II of CITES concerning Commercially-Exploited Aquatic Species' (document CoP17 Doc. 88.3 Annex 5).

Recommendation

7. The Committee is invited to comment on the initiatives described above and to take note of this document.

Summary of the information received by the Secretariat concerning the implementation of Decision 17.249 on freshwater stingrays

Summary of Annex 2

Summary: Data received from the Museu de Historia Natural (MUSM), Universidad Nacional Mayor de San Marcos, Lima, Peru. Contains information (in Spanish) on the freshwater stingray specimens of the MUSM's Fish Collection, MUSM's field surveys, and other captures from the Peruvian Amazon. The data contains the following information:

Sheet name	Data description
'Rayas del Perú'	List of species occurring in the Peruvian Amazon contained in the MUSM's Fish Collection.
'Nombres comunes DIREPRO Loreto'	List of species (scientific and common names) captured in Loreto region per year (2000-2014). Data received from the Dirección Regional de Producción in Loreto.
'Unidades e Ingresos totales'	Information on the number of individuals per species captured in Loreto region (2000-2014). Informs on trade/export numbers and on permanent stock and/or mortality.
'Otros Potamotrygonidae'	
'P. motoro'	
'P. motoro.'	
'Datos de campo'	Descriptive field data of the ecological characteristics of survey sites.
'Resumen capturas 2000-2014'	Summary of captures, including number of common names, likely species, individuals, exports, and USD value.
'Rayas MUSM'	List of MUSM's specimens, including descriptive information on capture sites and captures dates.
'Rayas Datos localidad'	

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Summary of Annex 3

Summary: Document received from the Brazilian Institute for the Environment and Natural Resources (IBAMA). It consists of the report of the National Meeting for the Management of Fisheries and Commercialization of Brazilian Freshwater Stingrays (Part 1: Ornamental Fishing) (in Portuguese). The document elaborates on the debate of current regulations and proposals related to freshwater stingray fisheries. It includes a table where data is presented per species per hydrographic basin indicating which parameters of the reproductive and population biology are known for each species (maturity size, median lethal dose (LD50), ovarian and uterine fecundity, reproductive cycle, population synchronicity, longevity, age and growth, mortality, and demographic analysis).

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Summary of Annex 4

Summary: Paper that provides evidence on the decline in freshwater stingrays in the middle and lower Paraná River, South America. The authors used tail mutilation to enable the analysis of the relationship between fishing pressure and the species population size. The study confirms that local freshwater stingrays are threatened by humans and suggests that some species, such as *Potamotrygon motoro,* can be exploited sustainably.

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Summary of Annex 5

Summary: Report on fisheries and trade in freshwater stingrays in Brazil. Includes tables and graphics built on data up until early 2016 from the Brazilian Institute for the Environment and Natural Resources (IBAMA). The graphics depict annual exports of the species, their origin, and their importing destinations. The document also contains information on the taxonomy of the species.

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Summary of Annex 6

Summary: Publication (in Spanish) on Freshwater Stingrays of South America (Part I: Colombia, Venezuela, Ecuador, Peru, Brazil, Guyana, Suriname, and French Guyana) by the Alexander von Humboldt Biological Resources Research Institute, Colombia.

Part I includes information on the history of the research and on the current state of knowledge in the field. It contains a species catalogue with information on the different species present in the different basins. Specifically, it informs on biogeographic distribution (countries and basins), habitat, conservation status, diagnosing features, morphometric parameters (for neonates, juveniles and adults), reproductive parameters (size at sexual maturity and ovarian and uterine fecundity), behaviour, evolutionary biology, molecular phylogeny, diet, use, threats, fisheries, trade, and also cases of poisoning caused by freshwater stingrays. It also includes an identification key (in Spanish, Portuguese, and English) for the different genera and species, and information on capture and analysis methods. It also refers to the taxonomic synonyms used for some of the species.

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Summary of Annex 7

Summary: Publication (in Spanish) on Freshwater Stingrays of South America (Part II: Colombia, Brazil, Peru, Bolivia, Paraguay, Uruguay, and Argentina) by the Alexander von Humboldt Biological Resources Research Institute, Colombia.

Part II is a continuation to Part I (see Annex 6), adding information on ecophysiology and parasites, and further elaborating on diet and behaviour. Additionally, it presents case studies focused on specific range States, country-specific policy frameworks related to CITES, and recommendations on conservation measures.

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Summary of Annex 8

Summary: Publication (in Spanish) on the Conservation Status and Distribution of Freshwater Biodiversity of the Tropical Andes by the International Union for Conservation of Nature (IUCN) and other institutes. The book includes a chapter on the conservation status and distribution of freshwater fish, including a few species of the family Potamotrygonidae. There are also other chapters on key areas for freshwater biodiversity and on the evaluation of freshwater species' vulnerability to climate change.

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Summary of Annex 9

Summary: Report (in Spanish) on a study by the National Authority of Aquaculture and Fisheries of Colombia (AUNAP) and the Fundación Humedales. The study characterizes the fisheries of *Potamotrygon motoro* and *Potamotrygon schroederi* in the areas of Inírida, Puerto Carreño, and Puerto Gáitan of the Colombian Orinoquía region. It also refers to the species' biological aspects and uses the traditional knowledge of local fishermen communities to complement findings. Lastly, the study presents a preliminary proposal for management measures.

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Commercial species of freshwater stingrays in Brazil (forthcoming) (Annex likely available in time for AC29)

Summary: Data received from the Brazilian Institute for the Environment and Natural Resources (IBAMA). Contains information (in English) on freshwater stingrays in Brazilian fisheries and annual export statistics for the different species. It also includes information sheets on species identification, containing general remarks, distribution, illustrations and photographs.

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