

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



Sixteenth meeting of the Conference of the Parties
Bangkok (Thailand), 3-14 March 2013

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Inclusion of *Paratrygon aiereba* in Appendix II in accordance with article II, paragraph 2 (a) of the Convention and Resolution Conf.9.24 (Rev, CoP15):

Paratrygon aiereba (Müller and Henle, 1841)

Annotation

The entry into effect of the inclusion of *Paratrygon aiereba* in CITES Appendix II will be delayed by 18 months to enable Parties to resolve the related technical and administrative issues.

B. Proponent

Colombia^{*}.

C. Supporting statement

1. Taxonomy

- | | |
|-----------------------------------|---|
| 1.1 Class: | Chondrichthyes |
| 1.2 Order: | Myliobatiformes |
| 1.3 Family: | Potamotrygonidae |
| 1.4 Genus, species or subspecies: | <i>Paratrygon aiereba</i> (Müller y Henle, 1841) |
| 1.5 Scientific synonyms: | <i>Disceus thayeri</i> (Garman, 1913)
<i>Raja orbicularis</i> Bloch y Schneider 1801 |
| 1.6 Common names: | English: Discus ray
Spanish: raya manta, raya ceja, raya manzana
Portuguese: arraia branca, arraia preta, rodeiro |
| 1.7 Code numbers: | none |

^{*} *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.*

2. Overview

Paratrygon aiereba is part of the family of freshwater Potamotrygonidae that are native to South America and recognized as an ornamental fish resource of significant economic importance. Their exploitation for “mainly international” trade is considered to be one of the main threats and the cause of the reduction in wild stocks (Ramos, 2009; Lasso and Sánchez-Duarte, 2012).

More than 500,000 specimens from the Potamotrygonidae family were exported from Colombia between 1995 and 2012 (Barreto *et al.* 2009; CEP, 2009; Barreto *et al.*, 2011), as well as from other countries, such as Brazil, which exported more than 36,000 specimens between 2003 and 2005 (Ramos, 2009). It is important to mention that the export data for *Paratrygon aiereba* are underestimated, as the species has been exported under multiple trade names. In other countries, such as Brazil, export is permitted only for meat and is prohibited as an ornamental species (Ramos, 2009).

The Potamotrygonidae family includes 25 species across four genera: *Heliotrygon*, *Potamotrygon*, *Paratrygon* and *Plesiotrygon* (De Carvalho and Lovejoy, 2011; Froese and Pauly, 2012). However, this proposal focuses on the only species of the *Paratrygon* genus: *P. aiereba*, taking into account the biological conditions, vulnerabilities and marketing conditions that make it desirable to include the species in Appendix II of CITES.

The vulnerability of this species in terms of extinction risk, in accordance with the International Union for Conservation of Nature (IUCN) global categories, catalogues *P. aiereba* as Data Deficient – DD (Goes de Araujo and Rincón, 2009). However, the extinction risk assessment for freshwater fish in Colombia (Lasso and Sánchez-Duarte, 2012; Mojica *et al.*, 2012) classifies the discus ray as a threatened species in the Vulnerable (VU) category under the sub criterion A2ad, as a result of the obvious reduction in levels of actual or potential exploitation observed in the last 10 years (Lasso and Sánchez-Duarte, 2012).

Paratrygon aiereba qualifies for inclusion in Appendix II in accordance with article II, paragraph 2 (b) as it is known or can be deduced or foreseen that it is necessary to regulate trade in the species in order to ensure that the collection of specimens in the wild does not reduce the wild stocks to a level at which its survival would be threatened by continued collection and other factors.

Moreover, the Conference of the Parties at its fifteenth meeting in 2010, in accordance with Resolution Conf. 46 (Rev, CoP15), adopted decision 15.85 on freshwater stingrays and addressed the Parties in which species from the Potamotrygonidae family are found, proposing that they:

- a) note the findings and conclusions of the freshwater stingrays workshop (document AC24 Doc. 14.2), and increase their efforts to improve data collection on the scale and impact of the threats facing stingray species and populations from collection for ornamental trade, commercial fisheries for food and habitat damage;
- b) consider implementing or reinforcing national regulations regarding the management and reporting of capture and international trade of freshwater stingrays for all purposes, including commercial fisheries for food and ornamental trade, and standardizing these measures across the region, for example through existing South American intergovernmental bodies; and
- c) consider the listing of endemic and threatened species of freshwater stingrays (Potamotrygonidae) in CITES Appendix III as needing the cooperation of other Parties in the control of trade.

Inclusion in Appendix II of the *P. aiereba* species would guarantee the sustainability of a resource identified as being commercially significant, contributing to the control of statistics on legal activity and the reduction in illegal trafficking. It would also support the management, administration and regulation of this species in range states in order to establish coherence between international and national processes.

3. Species characteristics

3.1 Distribution

Paratrygon aiereba (Müller y Henle, 1841)

Found in the Bolivarian Republic of Venezuela, Brazil, Colombia, Ecuador, Peru and the Plurinational State of Bolivia (Annex 1).

In Colombia, *P. aiereba* is found in the Amazon and Orinoco basins (Maldonado-Ocampo *et al.*, 2008), in the Orinoco sub-basins (Arauca, Meta, Tomo, Inírida, and the bed of the Orinoco between the Tomo and Guaviare Rivers) (Lasso and Sánchez-Duarte, 2012) and the Amazon sub-basin (Putumayo River) (Ortega *et al.*, 2006). In the Bolivarian Republic of Venezuela, it is found in the Orinoco River Basin and the sub-basins of the Cinaruco, Capanaparo, Apure, Caura, Caroní and Delta Rivers (Lasso *et al.* 2004). In Brazil, the Plurinational State of Bolivia, Ecuador (River Pastaza sub-basin) and Peru (River Ucayali sub-basin), it is found in the Amazon River basin (de Carvalho *et al.*, 2003; Ortega *et al.* 2011) (See Annex 1).

3.2 Habitat

In general, freshwater stingrays are restricted to aquatic environments in which the salinity level is less than 3 ppt (Brooks *et al.* 1981). They are found in numerous freshwater environments, including sandy beaches, floodplain forests, small streams with rocky and muddy beds, and lakes (Charvet-Almeida, 2001). They may be present in three types of water (white, clear and black), although certain species show a preference or are more common in one type of water than others.

Paratrygon aiereba (Müller y Henle, 1841)

According to Lasso *et al.* (1996), *P. aiereba* is apparently more common in shallow waters near banks than in deep areas of the channels and lives in all white, clear and black waters; it is restricted to the main bed of big rivers and never enters the floodplain (Lasso and Sánchez-Duarte, 2012).

3.3 Biological characteristics

Paratrygon aiereba (Müller y Henle, 1841)

Maximum disc widths of 80 cm (de Carvalho *et al.* 2003, 87 cm (Rosa, 1985) and 100 cm (Ross and Schafer 2000) have been recorded. In the Orinoco basin, the species reproduces throughout the year; they can have 1 to 8 intrauterine embryos (normally 1 to 2); female discus rays reach sexual maturity at a disc width of 37 cm and male discus rays at a disc width of 45 cm (Lasso *et al.*, 1996; Barbarino and Lasso, 2005, 2009). In the Orinoco, Lasso *et al.* (1996) and Barbarino and Lasso (2009) reported a maximum disc width of 114 cm and a maximum weight of 24 kg for male discus rays and 157 cm and 115 kg for female discus rays.

3.4 Morphological characteristics

Paratrygon aiereba (Müller y Henle, 1841)

Flat, discoidal body, not as circular as *Potamotrygon*, concave at the front and with no rostral lobule. Pedunculated eyes; fleshy protuberance on the outer edge of the spiracles, Distance from the mouth to the outer edge of the disc is relatively large, 2.6 to 3.3 times smaller than the disc width. Short tail, with no dorsal or ventral folds (Rosa 1985, Lasso *et al.*, 2011c). In the Colombian-Venezuelan Orinoco Basin, males reach a maximum disc width of 114 cm and a maximum weight of 24 kg; females reach 157 cm and 115 kg, respectively (Lasso *et al.*, 1996 and Barbarino and Lasso, 2009).

The *Paratrygon* genus is monotypic, however, owing to its wide distribution, it has been suggested that it is a species complex. Based on genetic studies, Frederico *et al.* (2012) suggest that the species is divided in three large groups or clades in the Amazon basin: 1) Amazon-Solimões estuary and the Rio Negro, 2) Xingu River and 3) Araguaia River.

3.5 Role of the species in its ecosystem

According to Araujo *et al.* (2004), in all types of habitat where freshwater stingrays are found, they are considered to be predators at the top of the food chain. ***Paratrygon aiereba*** is a carnivore, preferring fish (Barbarino and Lasso 2005), although it also eats crustaceans and insects (Santos *et al.* 2004). It is also considered as a piscivore, although in the Orinoco basin, shrimps and insects also form an important part of its diet (Lasso *et al.* 1996; Lasso, 2004).

4. Status and trends

4.1 Habitat trends

Habitat degradation and productive activities such as agriculture and mining may affect ecosystems and the populations of species from the Potamotrygonidae family, including *P. aiereba* (Araujo *et al.*, 2004; Pinto, 2011; Abt *et al.*, 2012).

In Brazil, habitat disturbance may have an effect on *P. aiereba* as a result of ecotourism in the Rio Negro basin (Araujo *et al.*, 2004).

In Ecuador, the large basins, such as the Napo River and its tributaries (habitat of *P. aiereba*), have suffered from degradation and fragmentation; this makes it possible to predict a reduction in the population of this species, which will become more pronounced as a result of activities such as tourism and mining and petroleum activities (Barriga, unpublished data).

4.2 Population size

The IUCN global lists classify *P. aiereba* as DD. However, in Colombia the risk assessment for freshwater fish (Lasso and Sánchez-Duarte, 2012; Mojica *et al.*, 2012) includes *P. aiereba* as a threatened species in the vulnerable (VU) category (Lasso and Sánchez-Duarte, 2012), mainly as a result of the reduction in the population caused by overexploitation (see section 2).

4.3 Population structure

In Colombia, there are no data on the structure and demography of the *P. aiereba* population. Recent studies looking for *Paratrygon aiereba* in the Orinoco basin at the confluence of the Orinoco, Guaviare, Inírida and Atabapo Rivers did not find any specimens (Sierra-Quintero and Lasso, unpublished data), which is very concerning since the area was a natural range where *P. aiereba* was very abundant.

In Ecuador, Barriga (unpublished data) documented information from two years (1994 and 2010), during which 52 specimens were collected. The majority of specimens were male or female, with the disc width measuring between 25 cm and 55 cm.

4.4 Population trends

Although there is no information available on population structure (section 4.3), in the studies at the confluence of the Inírida River with multiple other rivers (the Bolivarian Republic of Venezuela-Colombia), no sign of *P. aiereba* was reported in the fish samples collected during 60 hours of sampling. All that is available are visual censuses carried out in the evening during the dry period (November 2010-March 2011) in the confluence of the Orinoco, Guaviare, Inírida and Atabapo Rivers in the Colombian Orinoco basin. These censuses, which focused on this species, produced very worrying results, since no specimen (neither juvenile, nor adult) of *Paratrygon aiereba* was spotted in a wide area covering approximately 252,943 ha.

Moreover, and despite not having specific data to help to calculate the productivity of the species (defined in Resolution 9.24 rev CoP15) and produce a report on the species' decline, it is important to stress that *P. aiereba* has low and internal fertility, long gestational periods, slow growth and prolonged longevity (Lasso *et al.*, 1996; Araujo *et al.*, 2004).

4.5 Geographic trends

There is no information available on geographical trends.

5. Threats

Araujo *et al.* (2004) and Oldfield (2005), in Abt *et al.* (2012) and Lasso and Sánchez-Duarte (2012), refer to commercial, traditional and ornamental fisheries, negative fishing (because of possible conflicts with tourism activities) and fishing for food as the main threats, together with habitat destruction caused by the construction of hydroelectric plants and ports, and mining activities. In addition, Barriga, in MAE 2012, refers to petroleum and mining activities as other threats to the Potamotrygonidae family in Ecuador, as it

leads to the clearance of vegetation, the dumping of chemicals, the removal of substrate material and the suspension of solids.

In the Bolivarian Republic of Venezuela, fishing for food takes place in the River Apure sub-basin (the Arauca system in the Orinoco basin) and the meat is approved and marketed as an alternative to traditionally marketed fish. This suggests that fishing for food could represent a significant additional threat to the marketing of *P. aiereba* as an ornamental species (Barbarino and Lasso, 2009).

The removal of *P. aiereba* as an ornamental fish resource, with a focus on immature specimens (juveniles) has caused great pressure (overexploitation) because that stage of development is the most marketed (Lasso and Sánchez-Duarte 2012). Recent censuses at the confluence of the River Inírida with multiple other rivers are concerning because of the possible consequences and population decline.

In Brazil, there has only been regulation of the catching of Potamotrygonidae since the 1990s (Araujo *et al.*, 2004)

Similarly, the extinction risk assessment for freshwater fish in Colombia using the IUCN criteria (Lasso and Sánchez-Duarte, 2012, Mojica *et al.* 2012) refers to overexploitation from commercial and ornamental use as one of the main threats to *Paratrygon aiereba* (Lasso and Sánchez-Duarte, 2012).

6. Utilization and trade

6.1 National utilization

According to Prada-Pedrerros *et al.* (2009) and Ajiaco *et al.* (2012), in Colombia, the methods used to catch rays from the Potamotrygonidae family include nets, traps and baskets for the catching of rays. Authors such as Barbarino and Lasso (2009) include the harpoon (82 per cent of catches) and rods (line with bait).

The meat from *Paratrygon aiereba* is approved in countries such as Brazil and the Bolivarian Republic of Venezuela, while the species is approved for ornamental purposes in Colombia, Peru and the Bolivarian Republic of Venezuela, where there is significant directed fishery which only takes place in the high water period (June-August). This is mainly motivated by scarcity during this period (Barbarino and Lasso, 2009; Goes de Araújo and Rincón, 2009; Lasso and Sánchez-Duarte, 2012).

Other reported uses in remote areas of the Colombian Orinoco and Amazon basins (Putumayo River) include subsistence farming of adult rays and the liver, which is traditionally used for medicinal purposes (respiratory illnesses) (Lasso and Sánchez-Duarte 2012). Similarly, in countries such as Brazil and Ecuador, uses for species from the Potamotrygonidae family include their spines, which are used as adornments and for small arrows and harpoons (Barriga in MAE, 2012). Moreover, Araujo (2004), reported by Ramos 2009, refers to consumption of the meat, particularly of species such as *P. aiereba* as another significant use, with demand concentrated in cities in the centre and south of Brazil and Asian countries such as the Republic of Korea and Japan.

6.2 Legal trade

Paratrygon aiereba is marketed for its meat (Ramos 2009), and as an ornamental species in Colombia and Peru (Araujo *et al.*, 2004; Lasso and Sánchez-Duarte, 2012).

According to Ramos (2009), the principal purchasers of the meat of freshwater rays are cities in the south and east of Brazil, Japan and the Republic of Korea.

With regard to ornamental trade, the information from Colombia shows six countries that import discus rays; these are mainly Asian countries or territories, such as Thailand and Hong Kong SAR (Annex 3). The information on exports shows that between 2007 and 2011, 216 specimens were reported to be exported, although in 2009, 149 specimens were reported (Incoder 2012).

Although it cannot be found easily for sale on the Internet, *P. aiereba* is offered in some forums and pages belonging to experienced aquarists; it is not known if the origin of the specimens is legal (Annex 4). The sale price is USD 200 per specimen. It is important to stress that although it is a marketed species, the technical concept developed by Bustamente and Sánchez (2010) did not include marketing sizes.

In the case of Brazil, it is particularly important to mention that trade in the meat is permitted, while ornamental trade is prohibited (Ramos, 2009).

6.3 Parts and derivatives in trade

There is significant trade of discus rays for their meat. However, international trade is more significant. For this trade, juvenile or adolescent specimens are caught for ornamental purposes (Lasso and Sánchez-Duarte, 2012).

6.4 Illegal trade

In the region there are indications of illegal trafficking for at least the last five years in the region of the confluence of the Inírida River with multiple other rivers of two species (*Potamotrygon motoro* and *Potamotrygon schroederi*) (Lasso, personal observation). Similarly, Ramos (2009) referred to the problems faced in border regions with regard to illegal trafficking as a result of possible removal of specimens from Brazil, which are then exported from Peru or Colombia.

Likewise, countries such as Ecuador and Brazil refer to reports of removal of specimens for export via other countries, such as Colombia (Ramos, 2009; MAE, 2012).

The inclusion of *P. aiereba* in Appendix II of CITES would improve communication on exchanges between exporting and importing Parties and would contribute to reducing illegal trade and support species management and control.

6.5 Actual or potential trade impacts

Although the information on exports does not seem to show significant overexploitation of *P. aiereba*, it is important to highlight that there are currently trends of exploitation of aquatic organisms, such as the manta ray, which suggest the need for the implementation of management and regulation activities that also take into account the inherent biological characteristics of the species, such as low fertility rates, and also suggest increased vulnerability of the species (Barbarino and Lasso 2009). This vulnerability becomes evident in the absence of records of *P. aiereba* in recent censuses at the confluence of the Inírida River with multiple other rivers.

Therefore, the need to implement better regulation of this species as an ornamental fish resource does not solely concern range countries, but also requires measures to regulate international trade.

7. Legal instruments

7.1 National

Brazil. Brazil has a specific legal framework for the regulation of export for ornamental purposes in which *Paratrygon aiereba* is listed (Goes de Araújo and Rincón, 2009). Since 1990, the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) has prohibited the export of freshwater rays for ornamental purposes. Taking into account the problems that this ban caused among coastal communities, IBAMA, in collaboration with scientific institutions and community participation, developed a quota system for certain species of rays. For *Paratrygon aiereba* it was prohibited to export them from Brazil (Araújo et al. 2004).

Colombia. The regulations govern the comprehensive management and rational exploitation of fish resources in order to ensure their sustainable use and the maintenance and protection of aquatic ecosystems. Colombia also has a regulatory and administrative framework to regulate commercial fishing for ornamental purposes which, in the specific case of *Paratrygon aiereba*, states that such fishing and other activities may only be carried out after the relevant permits and authorizations are obtained from the Fisheries Authority (Resolution 3532 of 2007). In addition, this Authority defines the closed periods, which are periods in which the catching, transport, collection and trade are prohibited. Similarly, the administrative authority, lead by the Ministry of Agriculture and Rural Development, establishes global quotas for fishing of different species for ornamental use (Resolution 0301 of 2011).

Ecuador. Ecuador has a model for the sustainable conservation of biodiversity in the Constitution. The environmental management policies are applied in a cross-cutting manner and are linked at all

levels and for all individuals and companies in the country. In the case that there are doubts about the scope and reach of environmental law, the protection that most favours nature prevails. In addition, Ecuador has two environmental laws for the protection of biodiversity: the Environmental Management Act and the Forestry and Natural Areas and Wildlife Conservation Act. The main legal instrument is the Unified Text of Secondary Environmental Legislation (TULAS) by the Ministry of Environment, in which are laid out the management, conservation, protection and trade requirements for wild species that are native to Ecuador. In general, the text gives power to the Ministry of Environment to establish partial or total closed periods for the short, medium or long term in order to protect the wildlife and ensure that the equilibrium of the ecosystems is maintained. For the exploitation of ornamental fish, there is a specific regulation for when the species do not come under Appendices I or II of CITES (MAE, 2012).

7.2 International

Convention on International Trade in Endangered Species of Wild Fauna and Flora

The countries involved should monitor trade in those species that are listed in the different Appendices of the Convention. Each Party should keep registers of the trade and number of specimens from species included in those Appendices. Similarly, each Party is responsible for preparing and submitting to the Secretariat periodic reports on the application of the provisions of the Convention. Currently, decision 15.85 encourages Range States of species in the Potamotrygonidae family to:

- a) note the findings and conclusions of the freshwater stingrays workshop (document AC24 Doc. 14.2), and increase their efforts to improve data collection on the scale and impact of the threats facing stingray species and populations from collection for ornamental trade, commercial fisheries for food and habitat damage;
- b) consider implementing or reinforcing national regulations regarding the management and reporting of capture and international trade of freshwater stingrays for all purposes, including commercial fisheries for food and ornamental trade, and standardizing these measures across the region, for example through existing South American intergovernmental bodies; and
- c) consider the listing of endemic and threatened species of freshwater stingrays (Potamotrygonidae) in CITES Appendix III as needing the cooperation of other Parties in the control of trade.

Convention on Biological Diversity

The objectives of this Convention are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources through adequate access to these resources and appropriate transfer of relevant technologies, taking into account the rights to such resources and technologies (Domingo *et al.*, 2008).

Amazon Cooperation Treaty

The Amazon Cooperation Treaty (OTCA) was signed by the eight Amazon countries: the Bolivarian Republic of Venezuela, Brazil, Colombia, Ecuador, Guyana, Peru, the Plurinational State of Bolivia and Suriname. It is a technical, legal instrument that aims to promote harmonious and integrated development of the basin based on a regional economic complementation model that provides for the improvement of the quality of life of its inhabitants and the conservation and rational use of its resources. The Treaty provides for collaboration between the member countries to promote: scientific and technological research and the exchange of information; the rational use of natural resources; freedom of navigation on the Amazonian rivers; protection of shipping and trade; preservation of cultural heritage; health care; the creation and operation of research centres; the establishment of an adequate transport and communications infrastructure; and an increase in cross-border tourism and trade. All of these measures should be developed through bilateral activities or joint activities by a group of countries, with the objective of promoting the harmonious development of the respective lands (TCA, 2012).

Code of Conduct for Responsible Fisheries

Currently, there are no international instruments that address directly the species in question. However, the Member States of the Food and Agriculture Organization of the United Nations (FAO) have developed an instrument that establishes principles and international regulations for the application of responsible practices in order to ensure the conservation, management and development of live aquatic resources, while respecting the ecosystem and biodiversity. Although the Code of Conduct for Responsible Fisheries of the FAO is a voluntary instrument, its guiding principles are internationally accepted for the management of fisheries. The Code was developed to cover both continental and marine fisheries and is appropriate for the management of the majority of fish populations, including cross-border populations (FAO, 2012).

8. Species management

8.1 Management measures

The National Action Plan for the Conservation of Sharks, Rays and Chimaeras of Colombia (2012) refers to *Paratrygon aiereba* as a high priority (Caldas *et al.*, 2010).

8.2 Population monitoring

No information available.

8.3 Control measures

8.3.1 International

Both binding and voluntary instruments can be cited, particularly the Committee on Fisheries of the FAO Council and the Code of Conduct for Responsible Fisheries of the FAO Member States (FAO 2012a, b).

8.3.2 Domestic

Bustamente and Sánchez (2010) developed a technical document for the Colombian Institute for Rural Development (Incoder) which contains definitions of the minimum catch sizes and a National Strategy for the Prevention and Control of Illegal Trafficking in Wild Species (Ministry of Environment, 2002). In the case of global quotas, monitoring of specimens exported is carried out via reports submitted monthly to the National Aquaculture and Fisheries Authority (AUNAP) by authorized exporters. Once the established quota has been met, exports are stopped and for the exports to be authorized, the Ministry of Trade requests the approval of AUNAP and the Colombian Agricultural Institute (sanitary requirements) following the procedure established in the Single Window for External Trade (VUCE).

In Ecuador, the export of wild flora and fauna is not permitted without the authorization of the Ministry of Environment, which has technical offices in Guayaquil Airport and Seaport, the main port for export in Ecuador. The technical staff that work in these offices monitor exports of both wild flora and fauna (MAE, 2012). Other measures in Ecuador include a Forestry and Wildlife Monitoring Project, which has 11 fixed posts and 7 mobile posts throughout the country which, with the support of the Environmental Protection Unit of the National Police, carry out controls on the motorways, looking for both forest species and wild flora and fauna.

According to Rama (2009), in Brazil, IBAMA uses an electronic system for the monitoring of fisheries, the "Fisheries source document" and have plans to develop identification manuals for different species to support the inspections. Quotas using sustainability criteria are also being developed. It is important to highlight that Brazil has banned the export of *P. aiereba* as an ornamental species.

8.4 Captive breeding and artificial propagation

For this species in particular there is no information available on captive breeding or artificial propagation.

8.5 Habitat conservation

In the Ecuadorian Amazon basin there are two protected areas that are below 400 m above sea level: the Cuyabeno Wildlife Reserve and Yasuní National Park. Together they cover a surface area of 15,854 km² and between the two there is a corridor which is in a good state of conservation (MAE, 2012).

In the Colombian Orinoco and Amazon basins, there are national protected areas in which *P. aiereba* is found. In the Orinoco basin, the species can be found in the El Tuparro National Natural Park, Puinawai National Natural Reserve, and the Nukak National Natural Reserve, while in the Amazon basin, it is found in the Amacayacu National Natural Park, La Paya National Natural Park, Cahuinari National Natural Park, Río Puré National Natural Park and the Yaigojé Apaporis National Natural Park.

Moreover, as a conservation measure, steps are being taken to designate the Wetlands Complex at the confluence of the Inírida River with multiple other rivers as a RAMSAR site (MADS, 2012).

9. Information on similar species

The species belongs to a monotypic genus.

10. Consultations

Preliminary consultations were carried out, followed by consultations with the range countries. Awaiting responses from the majority of the countries consulted.

Country	Support indicated (Yes/No/ Pending/ No objection)	Summary of information provided
Bolivarian Republic of Venezuela	Pending	Comments have been received but these were not received in time to include them in the proposal rationale.
Brazil	Pending	Comments have been received but these were not received in time to include them in the proposal rationale.
Ecuador	Pending	The Ministry of Environment of Ecuador provided information during informal consultations. The information has been included in the proposal.
Peru	Pending	Comments have been received but these were not received in time to include them in the proposal rationale.
Plurinational State of Bolivia	Pending	Comments have been received but these were not received in time to include them in the proposal rationale.

11. Additional remarks

12. References

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Area of distribution of *P. aiereba*

Source: Instituto Humboldt 2012.

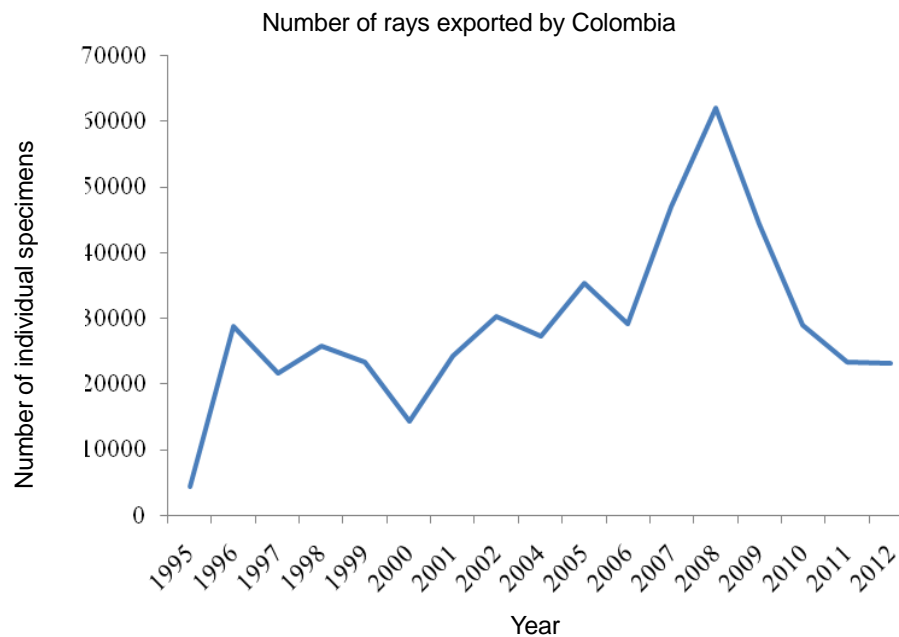
Paratrygon aiereba



Paratrygon aiereba



Graph showing specimens of the Potamotrygonidae family exported from Colombia
between 1995 and 2012.



Taken from Ajiaco-Martínez *et al.*, 2012. For years 1995–2008 source: Barreto *et al.* (2009), data for 2009 (CEP, 2010), data for 2010–2012 (Barreto *et al.*, 2011)

**Number of individual specimens of *P. aiereba* exported from Colombia
and main importing countries or territories**

Source (Mejía- Falla *et al.* 2010, Incoder 2012)

	Colombia
Importing country	<i>P. aiereba</i>
China	6
Hong Kong	37
Japan	32
Mexico	6
Russian Federation	15
Thailand	120

Internet offers for *P. aiereba*

Source (Instituto Humboldt, 2012)

<i>Paratrygon aiereba</i>				
COMMON NAME	VENDOR COUNTRY	ESTABLISHMENT/SELLER	SALE PRICE (USD)	REFERENCE
Cega stingray	USA	Aquascape	200	http://www.aquascapeonline.com
Stingray	France	Potamotrygon Frenchshop	210	http://www.potamotrygon-frenchshop.com