

POTAMOTRYGON SPECIES

Support Proposal to Include Species of *Potamotrygon* Stingrays in Appendix II

Potamotrygon is a genus of freshwater stingrays native to South America. This proposal is focused on the species *P. wallacei* and *P. leopoldi*, as well as five other species that are similar in appearance, all of which are endemic to Brazil. *Potamotrygon wallacei* and *Potamotrygon leopoldi*, face diverse threats, particularly from fishing for the ornamental fish trade and habitat degradation. These species also have slow life history strategies with low reproductive output, increasing their vulnerability to overexploitation¹.

Proponent of Listing

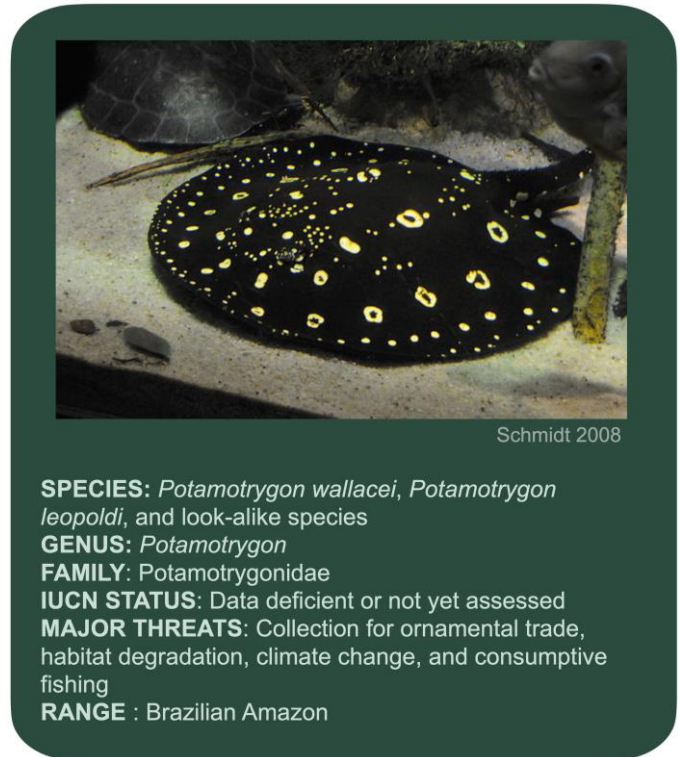
Brazil.

Distribution and Habitat

P. wallacei and *P. leopoldi* are **endemic** to the Brazilian Amazon. *P. wallacei* is found in the middle Negro River Basin and has high habitat specificity. It can be found in areas with creeks, small streams, and flooded forests. *P. leopoldi* prefers rocky river bottom habitats. It is found in the Xingu River as well as adjacent rivers and tributaries. Both species are opportunistic feeders with no natural predators.

Risk of Extinction

Neither of these species has been assessed by IUCN to determine if they are threatened with extinction. *P. leopoldi* is listed as Data Deficient, and *P. wallacei* has yet to be evaluated. Both species are threatened by collection for the ornamental fish trade, compounding pressure from an increase in fishing for human consumption. They are also experiencing habitat degradation from livestock, mining, agriculture, dams, and climate change.



Reproductive Strategy

Both *P. leopoldi* and *P. wallacei* are K-strategy species reaching sexual maturity at a late age and producing few offspring. This makes these species particularly vulnerable to over-exploitation and population declines as they cannot quickly rebound.

Ornamental Fish Trade

Fishing for the ornamental fish trade is the most pressing threat for *P. leopoldi* and *P. wallacei* and it is increasing. Demand for these freshwater stingrays is driven by markets in Asia, Europe, and North America. *P. leopoldi* is the most popular ornamental stingray throughout Asia as well as the United States and Canada. Many of these stingrays are sourced from captive breeding programs,

¹ The information contained in this document was drawn from Brazil's proposal, which can be accessed online at:

<https://cites.org/sites/default/files/documents/E-CoP19-Prop-39.pdf>.

Potamotrygon Species
FAMILY: POTAMOTRYGONIDAE
RANGE: BRAZILIAN AMAZON

THREATS:

- ORNAMENTAL TRADE
- HABITAT DEGRADATION
- CLIMATE CHANGE
- CONSUMPTIVE FISHING

SPECIES PROPOSED FOR LISTING:

Article II of the Convention, satisfying criteria A and B for the inclusion of species in Appendix II of Resolution 9.24 (Rev. Cop 17):

- *Potamotrygon leopoldi*
- *Potamotrygon wallacei*

Criteria A in Annex 2b (Conf. 9.24, Rev. CoP17):

- *Potamotrygon henlei*
- *Potamotrygon albimaculata*,
- *Potamotrygon jabuti*
- *Potamotrygon marquesi*
- *Potamotrygon signata*

but CITES records collected pursuant to their current Appendix III listing indicate there are also stingrays on the market that originated in the wild. *P. leopoldi* is the most highly exported species from Brazil, and is also the one that is most frequently seized by law enforcement. Many specimens traded under other names are actually *P. leopoldi*. Collectors prize *Potamotrygon* that are albino or have unique patterns.

Fishing for Human Consumption

In addition to being captured for the ornamental fish trade, *P. leopoldi* and *P. wallacei* are fished for human consumption; combined, both types of offtake have led to declines in populations that put the species at increased risk.

Habitat Degradation

A number of anthropogenic factors have contributed to the degradation of *P. leopoldi* and *P. wallacei* habitat including deforestation, wildfires, construction of hydroelectric power facilities, agriculture, livestock, and mining. These factors can introduce heavy metals into *Potamotrygon* habitat, increase water turbidity, promote erosion, and decrease water quality, as well as cause other disruptions.

Climate Change

The threats to *Potamotrygon* species may be further aggravated by climate change. Wet and dry seasons have begun to shift in the Xingu River area and these shifts will likely increase threats to the species as climate change continues to affect the area. The water temperature in the river has risen 2°C in the past two decades. Such changes

can disrupt *Potamotrygon* reproductive cycles as well as pose other threats to these species.

Support this Proposal

P. wallacei and *P. leopoldi* are threatened by collection for the ornamental fish trade, fishing for human consumption, habitat degradation, and climate change. In response to these threats, Brazil listed these species in Appendix III in 2017. Unfortunately, inclusion in Appendix III has not led to the collection of accurate trade data and the species continue to be traded illegally in violation of Brazil's national legislation. To address the threats facing *P. wallacei* and *P. leopoldi*, particularly their vulnerability to exploitation, the species should be included in Appendix II of CITES; and for this listing to be effective and to prevent identification difficulties for law enforcement officers, all look-alike species must also be included in the Appendix.

Reference

This fact sheet is a summary of the proposal to include *P. wallacei* and *P. leopoldi* as well as look-alike species under Appendix II of CITES.

Schmidt, C. (2008). Potamotrygon national aquarium. https://en.m.wikipedia.org/wiki/File:Potamotrygon_national_aquarium.jpg