

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

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COMMENTS OF ARGENTINA'S ADMINISTRATIVE AUTHORITY TO THE DOCUMENT  
AC28 DOC.18, FRESHWATER STINGRAY.

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**Comment on the three proposed strategies:**

From a strictly practical point of view, the most realistic strategy for now, considering the degree of taxonomic confusion and the lack of biological information about many species, it is the third, namely, to include the entire Potamotrygonidae family in Appendix II.

There are many species not yet described that are sold in the ornamental fish market (some illegally). Some species are known only now and yet were already being exploited for a long time. Others are very successful invaders (*P. motoro* for example) and unchecked exports can cause problems in areas where they are not native (in fact already happening in Singapore). Moreover, the conservation status of most species are unknown, many of which are traded internationally. If not included the whole family, the taxonomic problems of many species may make it necessary to change regulations in the future.

**Comments on the species of the Plata Basin:**

We believe that *P. motoro* should not be a priority to study in the Plata Basin (this includes the Paraná, Paraguay and Uruguay rivers basins). Instead, *P. brachyura* must be a priority because a large maximum size is usually associated with older age of sexual maturity and lower rate of population growth. In addition, the species is fished fairly regularly throughout most of its range and exposure to this fishing pressure appears to be a risk factor.

*P. motoro* is the most common stingray in the Plata basin. There is some evidence (not yet formal) that it normally thrive in reservoirs, as Yacyretá, where it is very common. It also has considerably expanded its geographical distribution, and has invaded the upper Paraná.

There are other species for which information should be collected urgently, *P. hystrix* and *P. schuhmacheri*. In principle, these two seem to be the two rarest species in Argentina. Their taxonomy is not well established and *P. schuhmacheri* could be a synonym of *P. hystrix*. Even if both were the same species, it would remain the rarest (in Argentina at least, but there are similar indications for Paraguay or the Pantanal). Only two specimens are known for *P. schuhmacheri*, both from Santa Fe Province (Argentina). There is a third from Asunción (Paraguay), preserved in the Smithsonian Museum in Washington; this specimen has some diagnostic characteristics of the species (the form of the front of the disc) but the color pattern has been lost by the liquid preservative.

In other words, the species, if valid, is rare and should be a priority.

*P. hystrix* is not very common and seems to have low densities and a not very wide distribution in the Plata Basin, where it is endemic. It has only been recorded in the Paraná River (medium and low), Paraguay River (medium and low) and apparently the Río de la Plata; the holotype appears to come from Buenos Aires (there are recent pictures of a specimen of *P. hystrix* maintained in captivity at the Fishing Club of Buenos Aires, and it is assumed but not confirmed, that was captured in the dock of the club). So far *P. hystrix* has not been registered for the Uruguay River and the upper Paraná River.

The species called *Potamotrygon* cf. *hystrix* from the Negro River (Amazon basin), commonly known as cururú stingray (porcupine ray in the international ornamental fish market), is completely different to *P. hystrix*, which is endemic to the Plata Basin.

*P. amandae* and *P. falkneri* are more common than *P. hystrix* and *P. schuhmacheri* and would be in a second level of priority, after *P. brachyura*, *P. schuhmacheri* and *P. hystrix*. The two have invaded the upper Paraná River. They have a wide distribution, but they have never been registered for the Uruguay and La Plata Rivers.

There is a seventh species in the Plata basin, until now recorded only in the upper Paraguay River (in the Brazilian Pantanal). It is called *P. pantanensis*. It is similar to *P. amandae*. There is no further information than

that. Maybe its range is really small or might not yet have been registered because of the confusion with *P. amandae* and *P. motoro*. So far, it never appeared in samples taken along the Paraná River in Argentina. It should be included as a priority, we believe, because of its apparently restricted distribution and total lack of ecological information.

**Special remarks:**

"Potamotrygon falkneri, habitat degradation by the damming of the Parana River, construction of hydroelectric plants and ports."

This is wrong. First, although *P. falkneri* does occur in the Amazon Basin, this information refers to the Paraná River (Plata Basin), so it should not be given in the table showing data on the Amazon basin. Secondly, *P. falkneri*, like all stingrays recorded in the upper Paraná, are invasive in the upper Paraná (defined as the reach since the head of the Paraná River to the Itaipu dam). Dam construction is not a factor threatening the species in that region, but, on the contrary, it is the factor that allowed it to invade a vast area.

In several parts of the manuscript it is said that *P. motoro* as well as *P. orbignyi* and *P. humerosa* can be species complexes. It is also stated that *P. dumerilii* could not be a valid species. That has been resolved recently by analyses based on morphology. There are recent works (Loboda 2010 Loboda and Carvalho 2013) evaluating the various forms of *P. motoro* in all basins. No consistent differences to separate the different chromatic forms in this species were found, and the authors concluded that *P. motoro* is widespread species occurring in most major South American basins. Another very recent work (da Silva and Carvalho 2015), does the same with *P. orbignyi* and *P. humerosa*, concluding that these are valid species and not species complexes. The same study concludes that *P. dumerilii* is a synonym of *P. orbignyi* and that records *P. dumerilii* from the middle Paraná River correspond to *P. hystrix*. Beyond these recent additions, it is advisable to make an assessment using genetic markers to verify these identifications.

**References:**

Da Silva JPCB, MR de Carvalho. 2015. Systematics and morphology of *Potamotrygon orbignyi* (Castelnau, 1855) and allied forms (Chondrichthyes: Myliobatiformes: Potamotrygonidae). Zootaxa 3982: 1-82.

TS Loboda. 2010. Taxonomic and morphological revision of *Potamotrygon motoro* (Müller & Henle, 1841) in the Amazon basin (Chondrichthyes: Myliobatiformes: Potamotrygonidae). Master Thesis, University of São Paulo, 307 p.

TS Loboda, MR de Carvalho. 2013. Systematic review of the *Potamotrygon motoro* (Müller & Henle, 1841) species complex in the Paraná-Paraguay basin, with description of two new ocellated species (Chondrichthyes: Myliobatiformes: Potamotrygonidae). Neotropical Ichthyology 11: 693-