



IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group

Conservation Status of Syngnathids in Argentina

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The four syngnathid species identified as resident in the Argentinean shelf are:

- 1- *Hippocampus patagonicus* Piacentino and Luzzatto, 2004
- 2- *Syngnathus folletti* Herald, 1942
- 3- *Leptonotus blainvillanus* (Eydoux and Gervais, 1837)
- 4- *Leptonothus vincentae* (Luzzatto and Estalles, 2019)

SEAHORSES: *Hippocampus patagonicus* (IUCN-VU)

Three areas of occurrence have been described for the Patagonian seahorse, *Hippocampus patagonicus*, in the Argentine sea to date. However, further exploration of other suspected areas would be necessary

San Antonio Bay population (40°45'34.43"S, 64°51'38.35"W).

- The Southernmost population described for this species.
- The Patagonian seahorse inhabits the shallow channels of the Bay (0.5-15 m) and adjacent waters
- Population is phenotypically diverse (unpublished)
- Substantial declines have been documented (unpublished)

Regulations:

- A. San Antonio Bay is in a Natural Protected Area (Provincial Law 2670) and its management plan (act 398) protects seahorses. Specifically, it established that seahorses cannot be collected, handled or disturbed except for those involved in scientific research. Nevertheless, the protected zones established by the management plan considered the protection of shorebirds without further considerations for seahorse's critical zones.

- B. San Antonio Oeste municipal ordinance N° 5945/20 declares *H. patagonicus* Natural Monument and regulates the interaction between humans and the species prohibiting any kind of disturbance.

Both regulations are difficult to implement since there is no effective control over the area. There are a few provincial rangers that guard almost exclusively the critical areas for shorebirds leaving a large extension of territory uncovered. Artisanal fishers still collect seahorses to dry and sell them as souvenirs or live seahorses are captured for the aquarium trade.

The landscape of San Antonio Bay has been modified over the time and this has increased in the last 20 years. The main environmental stressors are:

- i. Chemical Industry: A Soda Solvay plant operating since 2005 is located next to a large sand bank where seahorses use to be abundant.
- ii. Fishery industry: three plants are located on the margins of San Antonio Bay and they discharge their effluents directly to the channel without any further treatment.
- iii. Effluent discharges: are directly discharged in the channels of the Bay.
- iv. Tourism expansion: San Antonio Bay beaches became a popular beach resource which implies the modification of the shoreline and the usage of critical areas for seahorses as recreational areas.
- v. Real estate development as a response to the increase in tourism and industrial activities.

2. Monte Hermoso (El Rincón zone- 39°S, 61°W)

This is an extensive coastal area of the Argentinean shelf. This area is recognized as one of the main nursery areas for bony and cartilaginous fishes in the Argentinean Sea. There is information about the presence of seahorses in this area. Most of them came from local fishers that utilize seasonally gillnets to target small sharks (*Mustelus schmitti*). There is no information about seahorse catches or abundance. Data is lacking on whether seahorses are retained for trade or released to their habitat after been caught.

3. Mar del Plata (38° 2'16.56"S, 57°31'42.57"W)

Mar del Plata is one of the most populous cities of Argentina and the largest one along the marine coast. It is also the main beach resort of the country. The main fishery dock of the country is located in this city. Inside that modified habitat of the fishery dock, a stable population of the Patagonian seahorses has been observed. Outside the boundaries of the dock the presence of seahorses is sporadic.

Regulations: Seahorses are locally protected by municipal regulations (ordinance 19692/2010). It was declared Natural Monument, which implies the prohibition of any kind of disturbance over the species.

Fisheries: Presumptively does not occur since the local regulation took place.

Trade: It does not further occur or it has been substantially reduced. Seahorses were a common souvenir from this beach (Mar del Plata). The Patagonian seahorses are not the only species of seahorses in trade. Imported seahorses, mainly from Philippines, were also traded dry. The species involved, in order of importance (by number of seahorses traded), were *Hippocampus spinosissimus*, *Hippocampus barbouri*, *Hippocampus patagonicus*, *Hippocampus reidi* and *Hippocampus ingens*.

The trade of seahorses has reduced since 2010 and the last record was on June 2017 (21 individuals of *H. spinosissimus*). After an extraordinary police operative over all the craft shops on November 2017, seahorses and exotic dry marine fauna (e.g. corals, seashells and starfishes) disappeared from the market.

Threats: Mar del Plata harbor is an artificial environment exposed to all kinds of impacts. Boat maintenance that includes washing- up powders and oil spills, antifouling paints, etc. There is also permanent dredging for the boat operations. Several invasive species have been recorded here. Presently, none of the uncountable threats found in this area seem to be affecting the seahorses' success in this habitat.

PIPEFISHES

- *Leptonotus blainvilleanus* (IUCN – LC).

There is no information about threats for this species along its area of distribution. The studies on the species are very poor. Few reports do indicate that it could be by-catch of the Patagonian shrimp fleet.

There is no specific regulations to protect this species.

- *Syngnathus folletti* (IUCN – LC).

It inhabits estuarine habitats in the northern coastal area of the Argentinean Sea. The studies on the species are very poor without certainty of any threats or its conservation status in Argentina.

There is no specific regulations to protect this species.

- *Leptonotus vincentae* (IUCN – Not Evaluated)

Only known for San Antonio Bay and adjacent waters (type locality).

Habitat stressors described for *H. patagonicus* inhabiting the same area apply to this species.

There is no specific regulations to protect this species.