



## What do we know about *Pteronura brasiliensis* in Uruguay?

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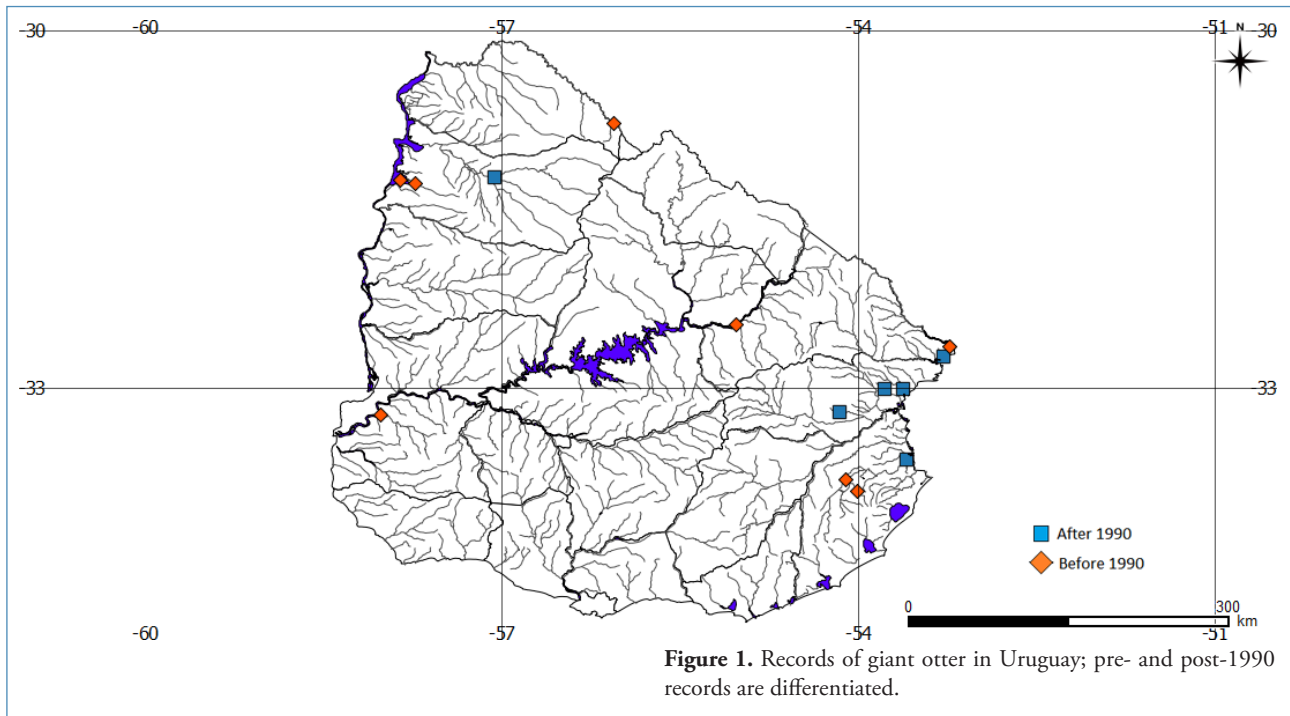
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*Pteronura brasiliensis* (giant river otter) and *Lontra longicaudis* (Neotropical otter) are the two species of Lutrinae listed for the mammalian fauna of Uruguay (González and Martínez, 2010). The present contribution constitutes an exhaustive review of the existing information about *P. brasiliensis* in Uruguay. Emphasis is on data about its historical distribution, and we discuss the possibility that the species still be present in the national territory. We searched the existing information in the national scientific collections (Faculty of Sciences, Universidad de la República, and National Museum of Natural History), reviewed the literature, and information was sought on field observations from scientists, veterinarians, agronomers, park rangers and naturalists.

The first reference of the species for Uruguayan territory corresponds to Arechavaleta (1882; 1887), who cited it as *Lutra brasiliensis*, but did not give any specific locality. Figueira (1894) did not mention the species in his list of mammals in the country, although Aplin (1894) in the same year stated that in 1892-1893 one individual of giant otter was observed in an area of rapids in a river with densely forested margins, located in the north-central part of the country. This specimen was feeding on a black cormorant (presumably *Phalacrocorax brasiliensis*). He also said that a fisherman told him about the damage caused by giant otters because they eat fish from fishing nets, although he did not mention whether fishermen hunted them directly. Sanborn (1929) mentioned the presence of the species in Uruguay based on Aplin's (1894) observation. Devincenzi (1935) remarked that 'furs that we have observed, from all of the Uruguay River, yield an average of 1.80m, 66cm corresponding to the tail' and added 'in our country occurs preferably in the Uruguay

River, North of Negro River, in this and its larger tributaries'. Barattini (1959) mentioned the presence of the 'lobo grande de río' in the Negro River. Ximenez *et al.* (1972) made reference to the only Uruguayan material in collections to the present day, a skull deposited at the National Museum of Natural History (MNHN 1266) collected in the Sauce Stream, in its confluence with the Negro River (department of Cerro Largo) in 1963. Langguth (1973) declared that the species 'is practically extinct in our country'. Soutullo *et al.* (1998), in a national survey of Lutrinae, collected six possible historical records for *P. brasiliensis*. These authors mentioned possible records to the north of the country in the years 1960, 1977, 1979 and 1996; as well as two possible records in the decades of 1930 and 1950 in the eastern wetlands. Prigioni *et al.* (2006) reported the discovery in 2004, on the coast of the Laguna Merín (department of Treinta y Tres, 32°59'48"S; 53°31'32"W), a series of tracks that could correspond to giant otter. They also discussed information provided by fishermen with several observations of the species between 1990 and 1994 in the Laguna Merín basin. According to Prigioni *et al.* (2006), the species would have been relatively common in eastern Uruguay until the decades of 1940-1950. Fishermen used to see groups of up to six individuals in the basin of the Laguna Merín, in rivers with vegetation of dense riparian forest.

In 2012, the park ranger Walter Sosa, of San Miguel National Park (department of Rocha) told one of the authors (EMG) that, in 2008, he observed a giant otter within the Park, in the San Luis Stream. The only species occurring in the park with which the giant otter could be confused is the Neotropical river otter. The park ranger informed us that he



**Figure 1.** Records of giant otter in Uruguay; pre- and post-1990 records are differentiated.

could see clear and well-defined spots in the throat area of the individual from a distance of 15m. Mr. Christophe Auguin observed an individual in the Yerbál Stream (department of Treinta y Tres) in 2012 whose description corresponds to a giant otter. Mr. Auguin and his wife saw the otter for several minutes in a small sandy beach of the river, and it was possible to see the throat spots and the characteristics of the tail.

Like other mammalian species of Uruguay whose status is poorly known (D'Elia, 2004), the giant otter has received little attention from the academic community. The lack of knowledge about *P. brasiliensis* creates uncertainty about the presence of the species in Uruguayan territory (Figure 1). In the event that the giant otter is still present in Uruguay, the greatest risk would be hunting, either out of curiosity or ignorance or for its fur (González and Martínez, 2010), this being the only threat reported at the national level for the species. From the legal point of view, the species is protected by the Wildlife Act, which prohibits hunting, possession, transportation and marketing of all native vertebrates, with some exceptions. It is worth mentioning that, despite the existence of such law, the police and the judiciary have shown to be ineffective in the country to ensure its implementation. Since 2009 the species is included in the list of priority species for conservation in Uruguay (Soutullo *et al.*, 2009). Although there are no direct efforts for the conservation of giant otters in Uruguay, the creation of the National System of Protected Areas in 2005 has led to the designation of several protected areas. So far, however, none of the proposed protected areas include regions with possible recent sightings of giant otters. The implementation of conservation measures in these areas would be desirable to preserve any population and the habitats where its presence is likely. Action plans to be developed in

the future depend directly on the confirmation of giant otter presence.

If its existence is confirmed, research should aim to assess the viability of the population(s), both from the genetic and ecological points of view. In turn, the creation of protected areas where the species occurs should be increased. Simultaneously, efforts should be devoted at the educational level and towards generating awareness among the inhabitants of these areas. If the presence of the species cannot be confirmed, the case of its possible extinction should be used in educational activities to generate awareness for the conservation of other species.

The data presented here are consistent with and reinforce what was expressed in the IUCN Action Plan for Latin American Otters (Chehébar, 1990), which indicates that fieldwork should be intensified to corroborate the presence of the giant otter in its historical range in order to implement appropriate conservation measures, as we have discussed in this article. Efforts must be focused on several rivers of the Laguna Merín basin: San Luis, Cebollatí, Olimar, Yerbál, Yaguarí and Yaguarón. Fieldwork must include information gathering among the local people and expeditions should be conducted along the rivers looking for individuals, vocalizations or signs.

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