

Distribution and habitat use of the Neotropical Otter (*Lontra longicaudis*) in the northwest of Corrientes province, Argentina

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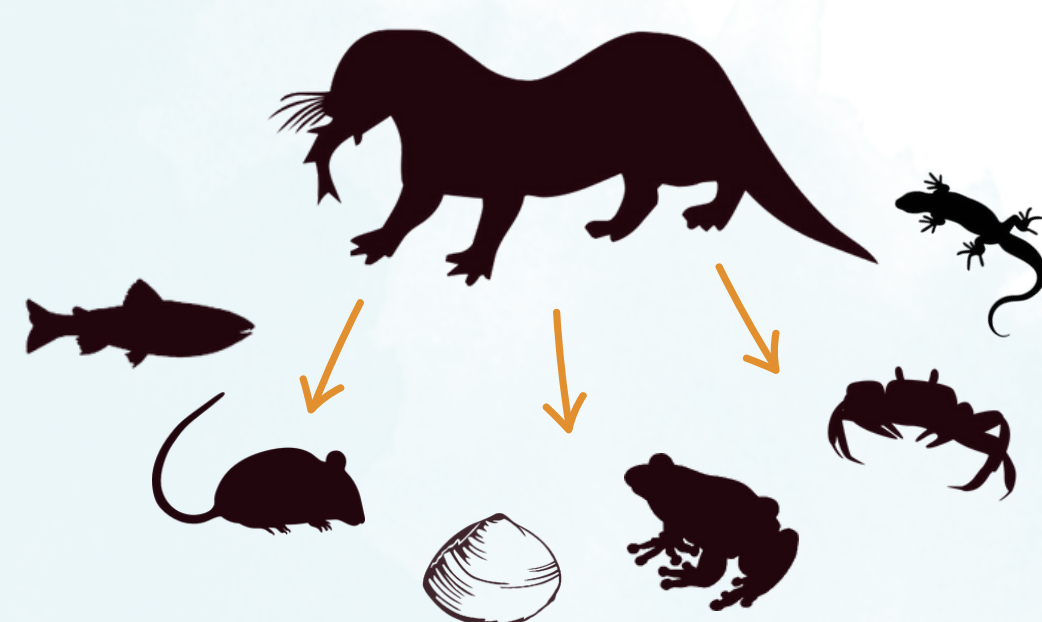
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NEOTROPICAL OTTER

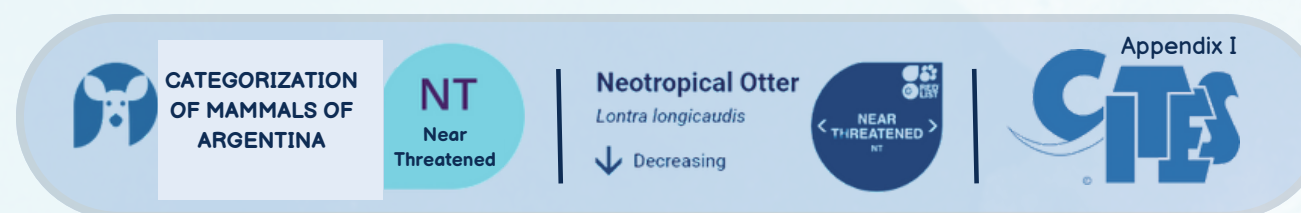
Geographical distribution



Top predator and keystone species

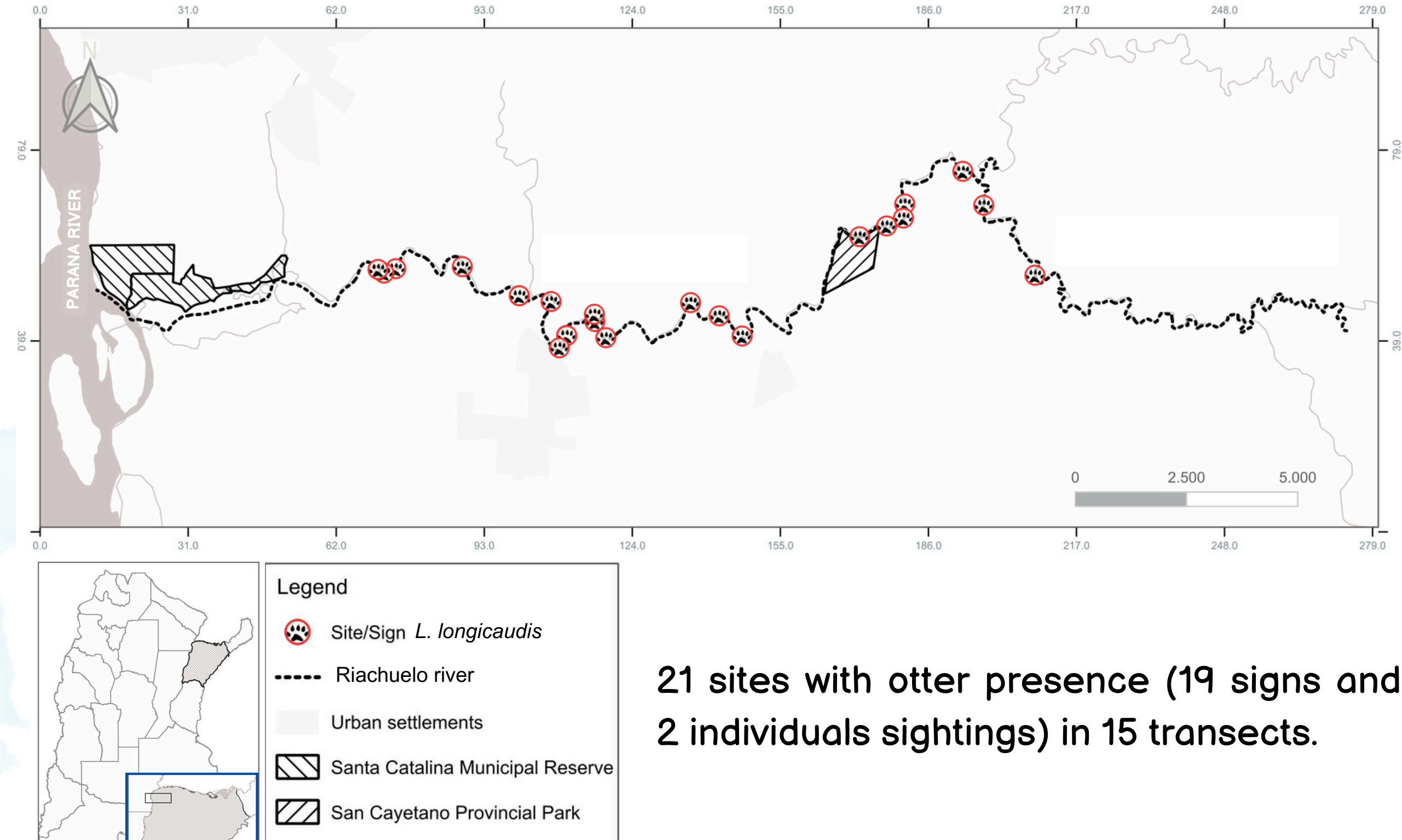


Conservation status



RESULTS

Spatial distribution



21 sites with otter presence (19 signs and 2 individuals sightings) in 15 transects.

Habitat use

Habitat characteristics and human influence do not showed significant relationship with otter presence (Residual Deviance = 394.45, DF = 41, $p = 0.95$). The global model explained only 14.93% of the total variability of the system, indicating that these "explanatory" variables did not explain otter presence. No otter presence was detected particularly in transects where the water body was dry or with unconnected small pools.

DISCUSSION

Water bodies and drought impact

The drought in 2022 created conditions that made the habitat unsuitable for otters, such as isolated pools and dry areas that prevent the river flow, affecting it use by the neotropical otter and, therefore, increasing pressure on this species.

Vegetation and habitat use

It is possible that vegetation was not related to habitat use because 1) it is not an important characteristic for otters or 2) the drought conditions during the study period force the animals to use suboptimal habitats.

Human influence and protected areas

Otters were present in both, human modified and unmodified areas, and no link was found between presence and protection status. Smaller protected areas (less than 100 hectares) may not sustain a population; larger, connected areas are needed for long-term conservation.

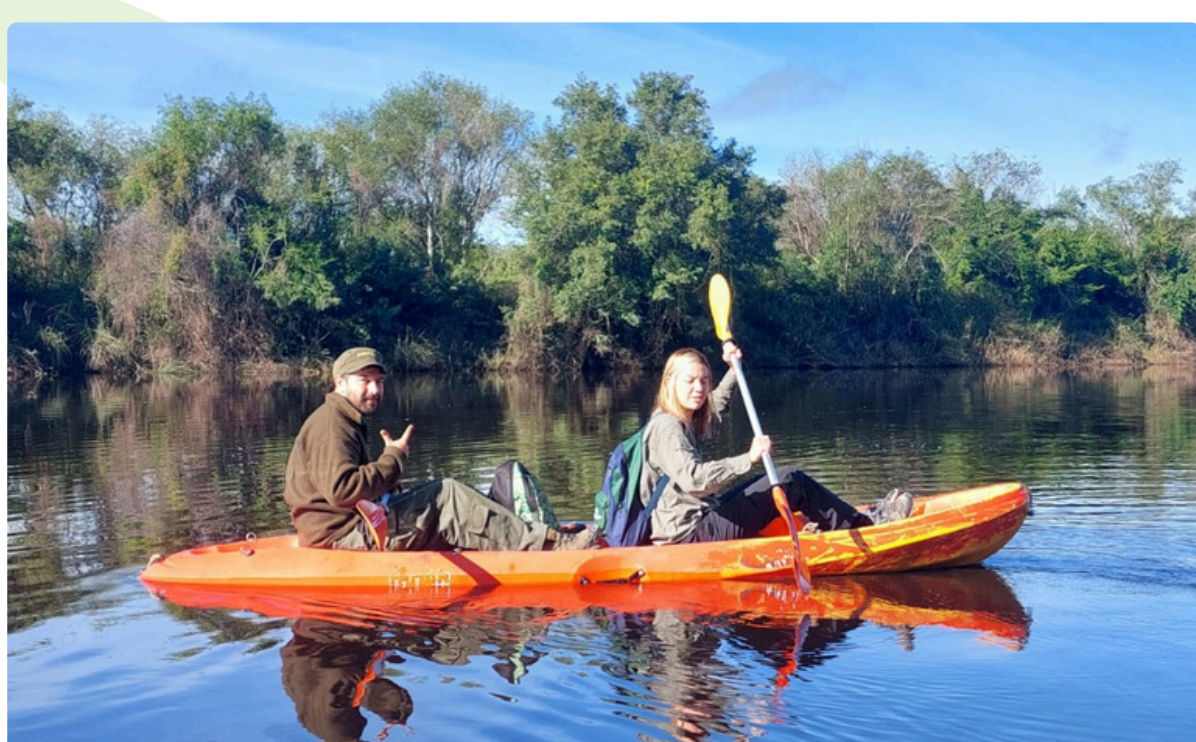
CONCLUSIONS

- The 2022 drought created unfavorable conditions by isolating water pools and disconnecting habitats, increasing pressure on the neotropical otter and highlighting the species vulnerability to climate changes and the need for conservation efforts that consider these impacts.
- Otters were not affected by antropogenic influence.
- This study raises new questions and establish the base-line for a long-term monitoring.

- Few research in Argentina → Province of corrientes: some studies from 20/30 years ago focused on protected areas.
- Objective → Assess *Lontra longicaudis* distribution and habitat use in Riachuelo River, NW Corrientes Province.

METHODOLOGY

- 44 km of riverbank including non-protected and 2 protected areas: San Cayetano Provincial Park and Santa Catalina Municipal Reserve.
- February-March 2022: 44 continuous 1km-long and 10-meters wide transects along both riverbanks . Survey: Presence of Neotropical otter (signs or direct sightings), habitat/environment characteristic, human influence.



TRANSECT

- Vegetation type
- Degree of human influence
- Protected area (Y/N)

SITE/SIGN

- Distance to water
- Physical soil structure
- Georeference
- Coastal slope
- Vegetation type (around 15m)



GLM: relationship between environmental variables (explanatory variables) and neotropical otter presence (dependent variable).



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