

## WILDLIFE ASSOCIATED WITH GIANT OTTER (*Pteronura brasiliensis*) IN BRAZILIAN PANTANAL

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5 Conservation Planning



### Introduction

The giant otter (*Pteronura brasiliensis*) is a top predator and a bioindicator of the conservation of aquatic ecosystems. The species excavate dens and uses latrines and campsites along riverbanks.



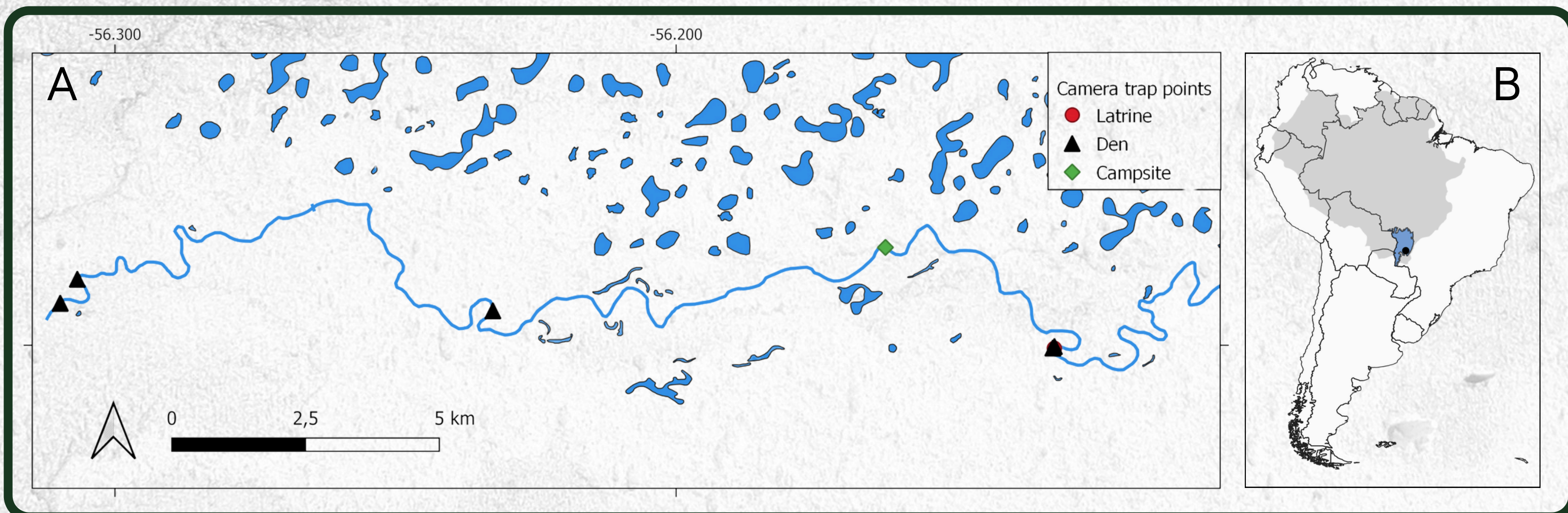
Images: A - Den, B - Campsite, C - Latrine, D - Camera trap at an active den.  
Source: Projeto Ariranhas (2024).

### Objective

This study aimed to evaluate the use of giant otter activity sites (latrines, dens and campsites) by other species and highlight their role in terrestrial ecological interactions.

### Methodology

In 2024, during the dry season (July to November), camera traps were installed along the Rio Negro in the Aquidauana municipality, located in the southern Pantanal, Brazil. The cameras were placed at 6 dens, 1 latrine, and 1 campsite - areas either currently occupied by giant otters or showing no recent signs of their presence.



Images: A - Study site with the locations of sampled camera traps, B - South America showing the study site's location within the Pantanal biome (blue) and the current distribution range of the species (grey).

### Results

The total sampling effort was 1640 traps/day with a total of 3601 records. We observed 17 species, including birds, mammals, reptile, amphibian and insects. Birds were the most abundant group, accounting for 40% of the records, with most observations associated with active dens. Among mammals, the lowland paca (*Cuniculus paca*) was the most frequently observed, accounting for 30% of the records and being exclusively associated with inactive dens.

Table: Animals that frequent giant otter dens, latrines, and campsites

Group	Scientific Name	Common Name	Time of Use	Area of use	State	Activity
Birds	<i>Caracara plancus</i>	Southern Caracara	Diurnal	Dens/Latrines	Active	Feeding
	<i>Milvago chimachim</i>	Yellow-headed Caracara	Diurnal	Dens/Latrines	Active	Feeding
	<i>Crax fasciolata</i>	Bare-faced Curassow	Diurnal	Dens/Latrines	Active	Feeding
	<i>Momotus momota</i>	Amazonian Motmot	Diurnal	Dens/Latrines	Active	Feeding
	<i>Aramides cajaneus</i>	Gray-cowled Wood-Rail	Diurnal	Dens/Latrines	Active	Feeding
	<i>Ortalis canicollis</i>	Chaco Chachalaca	Diurnal	Dens/Latrines	Active	Feeding
	<i>Pipile cumanensis</i>	Blue-throated Piping-Guan	Diurnal	Dens/Latrines	Active	Feeding
Mammals	<i>Cuniculus paca</i>	Paca	Nocturnal	Dens/Campsites	Inactive	Sheltering
	<i>Puma concolor</i>	Cougar	Nocturnal	Dens/Campsites	Active	Feeding
	<i>Hydrochoerus hydrochaeris</i>	Capybara	Diurnal/Nocturnal	Dens/Campsites	Inactive	Sheltering
	-	Mouse	Nocturnal	Dens/Latrines	Active/Inactive	Feeding
Reptiles	<i>Salvator merianae</i>	Argentine Black and White Tegu	Diurnal	Dens/Campsites	Inactive	Feeding/Sheltering
Amphibians	-	Frog	Nocturnal	Dens/Campsites	Inactive	Feeding
Insects	-	Flies	Diurnal	Dens/Latrines	Active	Feeding
	-	Dragonflies	Diurnal	Dens/Latrines	Active	Feeding
	-	Ants	Diurnal	Dens/Latrines	Active	Feeding



### Final Considerations

These results highlight the complex ecological role of giant otters, not only as apex predators and aquatic sentinels in freshwater ecosystems but also as ecosystem engineers in terrestrial environments. By fulfilling multifunctional roles and providing resources for other organisms, they contribute significantly to ecosystem dynamics. This study enhances our understanding of these interactions and underscores the importance of integrated conservation strategies that consider interspecies relationships, reinforcing the need for holistic approaches to biodiversity conservation.