

# Survey of medium mammals in livestock farms with native forest of the La Paz department 2018/2019

**Ignacio Rojido-Nin,  
Christopher Anderson y Sonia Canavelli**

**Partial report**  
Entre Ríos, 2019





Research question: How does the diversity of the medium mammal community vary in livestock systems with Espinal Espinal native forest, between shrubby and non-shrubby forest states?

**Non-shrubby forest (good quality state)**



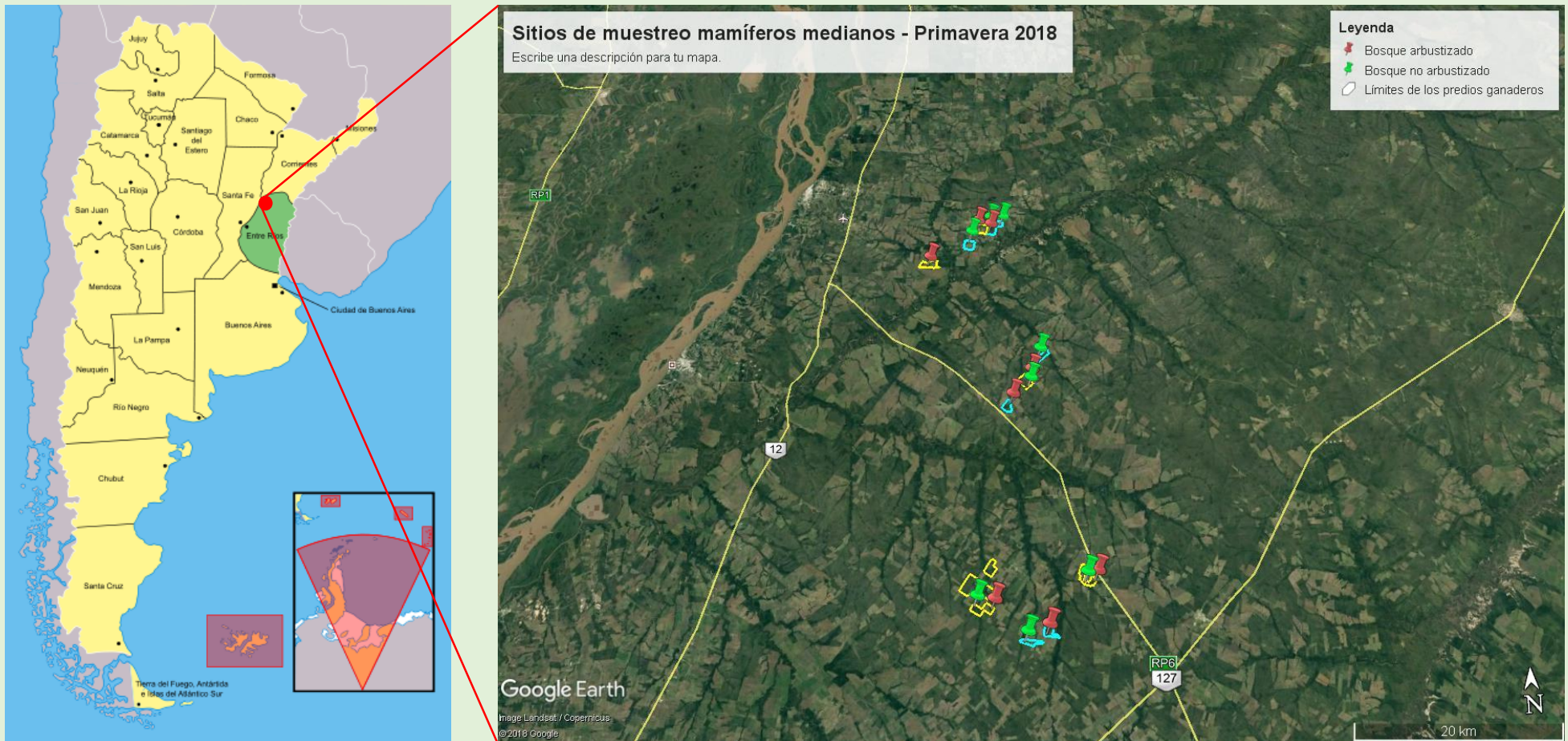
**Shrubby forest (degraded state)**





# Sampling design for first session

- Number of replicas:
  - ✓ 8 sites of non-shrubby forests.
  - ✓ 8 sites of shrubby forests.
- 1 camera-trap per site.



Mapa de Argentina demarcando la localización del área de estudio dentro de la provincia de Entre Ríos (Dpto La Paz), e imagen satelital mostrando los sitios de muestreo dentro de los predios ganaderos con bosque nativo.

Fuentes:

- Andrés Rojas 2010. Ubicación de la Provincia de Entre Ríos respecto a la República Argentina y su región. [https://commons.wikimedia.org/wiki/File:Provincia\\_de\\_Entre\\_R%C3%ADos\\_\(Argentina\).svg#file](https://commons.wikimedia.org/wiki/File:Provincia_de_Entre_R%C3%ADos_(Argentina).svg#file)
- Google Earth Versión 7.3.2

# Trap-camera record analysis

## Richness and composition of medium-sized mammal species by forest states

Forest state	Richness	Cantidad de registros (cantidad de sitios en la que se registró)									
		Zorro gris ( <i>Lycalopex gymnocer- cus</i> )	Zorro de monte ( <i>Cerdocyon thous</i> )	Mulita grande ( <i>Dasypus novemci- nctus</i> )	Zorrino ( <i>Conepatus chinga</i> )	Gato montés ( <i>Leopardus geoffroyi</i> )	Guazuncho ( <i>Mazama gouazuobira</i> )	Ciervo Axis ( <i>Axis axis</i> ) +	Liebre ( <i>Lepus europaeus</i> ) +	Vizcacha ( <i>Lagostomus maximus</i> )	Carpincho ( <i>Hydrochoerus hydrochaeris</i> )
Non-shrubby	7	24 (3)		4 (2)	1	3 (2)			1	1	3 (1)
Shrubby	8*	4 (2)	3 (3)	19 (5)	2 (2)	2 (2)	17 (4)	2 (1)	1		

+ Exotic species.

\* In addition, 1 species of micro-mammal was registered (*Thylamys citellus*).



Species with the largest number of records.

## Results of trap-camera records

- For the entire study area, 10 species of medium mammals were recorded.
- In the non-shrubby state, 7 species were identified, of which 2 were registered exclusively in this state.
- In the shrubby state, 8 species were identified, of which 3 were registered exclusively in this state.
- Two exotic species were identified.
- The species with the highest number of records were: Zorro gris (*Lycalopex gymnocercus*), Mulita grande (*Dasypus novemcinctus*), Gato montés (*Leopardus geoffroyi*) y Guazuncho (*Mazama gouazuobira*).
- Among the registered species, 3 are classified as Potentially Vulnerable.
- There were no registered species whose populations are seriously threatened, such as Puma (*Puma concolor*).

Description of the species  
registered in each state of native  
forest



Mulita grande (*Dasypus novemcinctus*)



## Non-shrubby state



Vizcacha (*Lagostomus maximus*)



Zorrino (*Conepatus chinga*)



Liebre europea (*Lepus europaeus*)



Gato montes (*Leopardus geoffroyi*)



Zorro gris (*Lycalopex gymnocercus*)



Carpincho (*Hydrochoerus hydrochaeris*)





Zorro gris (*Lycalopex gymnocercus*)



Zorro de monte (*Cerdocyon thous*)



Zorrino (*Conepatus chinga*)



Shrubby state



Liebre europea (*Lepus europaeus*)



Ciervo axis (*Axis axis*)



Gato montes (*Leopardus geoffroyi*)



Guazuncho (*Mazama guazuobira*)



Mulita grande (*Dasyus novemcinctus*)





## Species registered exclusively in non-shrubby forest sites

### Vizcacha (*Lagostomus maximus*)



- Characteristics: Large rodent, with a robust and rounded body up to 60 cm long.
- Distribution: SE of Bolivia, SW of Paraguay and a large part of the N and center of Argentina, up to the N of Patagonia.
- Habitat: Pastures and shrub steppes. It prefers open areas with an abundance of grasses.
- Population situation: abundant species and no conservation problems in most of its distribution, but is intensely hunted (meat and leather) so in the province of Entre Ríos, depending on the area ranges from abundant to almost extinct. IUCN: minor concern. Argentina: minor concern.

## Species registered exclusively in non-shrubby forest sites

### Carpincho (*Hydrochaeris hydrochaeris*)



- Characteristics: It is the largest of living rodents, with a height of 50 to 62 cm. and between 35-73.5 kg of weight.
- Distribution: In Panama and a large part of South America, to the south of the province of Buenos Aires in Argentina.
- Habitat: Live in a wide variety of environments, such as savannas, forests and jungles, always in areas near the water.
- Population situation: Species widely distributed and apparently without conservation problems. However, in some regions their populations have been reduced, due to the strong hunting pressure suffered by the consumption of their meat and the use of leather in leather goods. Their populations are often affected by infectious and parasitic diseases. IUCN: minor concern. Argentina: potentially vulnerable.



## Species registered exclusively in shrubby forest sites

### Zorro de monte (*Cerdocyon thous*)



- Characteristics: Canine of short and thick coat, of 77 cm in length and between 4,5-8,5 kg of weight.
- Distribution: From northern Colombia and Venezuela, Guayanas, a large part of Brazil, eastern Bolivia, Paraguay, Uruguay and northern Argentina.
- Habitat: Lives in very varied environments such as jungles, Chaco forests, gallery forests, savannahs, pastures and marshlands.
- Population situation: Apparently, it does not present major conservation problems because its skin has no commercial value, although it is subject to a constant and intense hunting pressure, on the part of the local inhabitants who consider it a harmful animal. IUCN: minor concern. Argentina: potentially vulnerable.

## Species registered exclusively in shrubby forest sites

Guazuncho (*Mazama gouazuobira*)



- Characteristics: Cervus of medium size, 82-125 cm long and between 8-25 kg of weight.
- Distribution: From southern Mexico to Uruguay and northern and central Argentina.
- Habitat: Live in different types of forests, mountains and savannahs and even in cultivated areas.
- Population situation: It is considered to be a common species throughout its distribution, although its situation is not sufficiently documented. It is quite tolerant and adapts to environmental modifications. In certain regions the populations are decreasing, due to the loss of habitat and the hunt for their meat and leather. IUCN: insufficient data. Argentina: minor concern.



## Species registered exclusively in shrubby forest sites



- Characteristics: Cervus of slender and graceful body of 150 cm long and 27-45 kg of weight.
- Distribution: **EXOTIC** species, native to Asia (India, Sri Lanka and Nepal).
- Habitat: Live in pastures and open forests and avoid areas of very closed vegetation.
- Population situation: It has been dispersed in a great variety of environments in Argentina. It is estimated, although with little accurate information, that due to its larger size it could compete and displace the guazuncho (*Mazama gouazuobira*).

## Species registered in both forest states

### Mulita grande (*Dasypus novemcinctus*)



- Characteristics: This cingulate (Cingulata), is the species of mulita of greater size, with 50-60 cm of length and between 4-8 kg of weight. It usually has 9 mobile bands, although it can vary between 8 and 11.
- Distribution: extends from the southern United States through Mexico and Central America, South America to the south to the north of Argentina.
- Habitat: it is present in a wide variety of habitats, including degraded habitats, such as highly degraded tropical and subtropical forests, farmlands, pastures, rural gardens, urban areas and plantations.
- Population situation: it is in the category of Minor Concern, in view of its very wide distribution, the presumably large size of its population, tolerance to habitat alteration, and because there is no evidence of a significant population decline.



## Species registered in both forest states

### Zorrino (*Conepatus chinga*)



- Characteristics: Carnivora (Carnivora) Robust and solid body, 28-50 cm long and weighing 1.5-3 kg.
- Distribution: South of Peru, center and south of Bolivia, north and center of Chile, west of Paraguay, southeast of Brazil, Uruguay, north and center of Argentina.
- Habitat: Live preferably in open areas, such as grasslands, steppes, rocky areas and desert areas. It can be found near towns.
- Population situation: Apparently their populations do not present conservation problems. For several decades his skin was very appreciated in fur. It is one of the animals that most often appears run over on the routes. IUCN: minor concern. Argentina: potentially vulnerable.

## Species registered in both forest states

### Zorro gris (*Lycalopex gymnocercus*)



- Characteristics: The coat usually has a mixture of black and yellowish white, with a predominance of black on the back. It has a length of 44-72 cm and 3-8.2 kg of weight.
- Distribution: South of Bolivia, Chile, Paraguay, Uruguay, and Argentina to Tierra del Fuego
- Habitat: Live in a wide variety of environments, especially open, such as steppes, meadows, and savannahs, avoiding forests and thick forests.
- Population situation: it is a widely distributed and abundant species, even in sites altered by humans. IUCN: Minor concern Argentina: Minor concern



## Species registered in both forest states

### Gato montes (*Leopardus geoffroyi*)



- Characteristics: Due to its appearance and size it can be confused with a domestic cat especially in the frequent cases of melanisms. It has 42 to 66 cm long head and body, plus about 24 to 36 cm of tail and a weight of 2-6 kg.
- Distribution: Bolivia, southern Brazil and Paraguayan Chaco, Uruguay, Argentina and southern Chile.
- Habitat: It is found from the mountain jungles in northwestern Argentina, to cold deserts in southern Patagonia, where it even occupies anthropized ecosystems.
- Population situation: It is the most common wild feline in Argentina, and does not present serious conservation problems at the moment. Even when it is the spotted cat species most exploited by the fur trade, in addition to being hunted for the damage it causes on the birds of the pen.

## Species registered in both forest states

### Liebre europea (*Lepus europaeus*)



- Characteristics: It is of medium size, with very long ears, short tail and long legs. It has 49-62 cm in length and 3-5 kg in weight.
- Distribution: **EXOTIC** species, native to Europe and Asia. It is found in a large part of Argentina.
- Habitat: Live in all types of environments: high mountains, open forests, mountains, steppes, pastures and in cultivated areas. It prefers generally open areas.
- Population situation: it is estimated that their populations are tens of millions of copies. It causes damage in different productive activities, for example it competes with sheep for natural pastures. On the other hand, the commercial use of its meat, leather and hair generates an important economic activity.



## Bibliography:

- Canevari, M y O. Vaccaro. 2007. Guía de mamíferos del sur de América del Sur. L.O.L.A. Buenos Aires, Argentina. 424 p. En: Administración de Parques Nacionales. Sistema de Información de Biodiversidad. [sib.gob.ar](http://sib.gob.ar)»
- Canevari, M. y C. Fernández Balboa, 2003. 100 mamíferos argentinos. Editorial Albatros. Buenos Aires. 160 pp. En: Administración de Parques Nacionales. Sistema de Información de Biodiversidad. [sib.gob.ar](http://sib.gob.ar)»
- Mares, A, Ojeda, R.A. y R.M. Barquez, 1989. Guía de los Mamíferos de la Provincia de Salta, Argentina. Ilustraciones por Guanuco, E., Caplonch, P. y N. Giannini. 1ra ed. University of Oklahoma Press. En: Administración de Parques Nacionales. Sistema de Información de Biodiversidad. [sib.gob.ar](http://sib.gob.ar)»
- Muzzachiodi 2007 - Lista comentada de las especies de mamíferos de la provincia de Entre Ríos, Argentina. 1a ed. - Buenos Aires: Fundación de Historia Natural Félix de Azara. Universidad Maimónides.
- Parera, A., 2002. Los Mamíferos de la Argentina y la región austral de Sudamérica. Editorial El Ateneo. Buenos Aires. 453 pp. En: Administración de Parques Nacionales. Sistema de Información de Biodiversidad. [sib.gob.ar](http://sib.gob.ar)»
- Redford, K.H. y J.F. Eisenberg, 1992. Mammals of the Neotropics. The Southern Cone. Volume 2. The University of Chicago Press. En: Administración de Parques Nacionales. Sistema de Información de Biodiversidad. [sib.gob.ar](http://sib.gob.ar)»