

DISTRIBUTION OF *PSEUDORYZOMYS SIMPLEX* (RODENTIA: CRICETIDAE) IN ARGENTINA

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ABSTRACT. We report new records for the poorly known sigmodontine rodent *Pseudoryzomys simplex* in Argentina, totalizing 28 recording localities (Formosa, Chaco, and Santa Fe provinces). The southern limit of the species is about 30°S and its distribution, in Argentina, is mainly restricted to the Eastern Chaco biome.

RESUMEN. Distribución de *Pseudoryzomys simplex* (Rodentia: Sigmodontinae) en la Argentina. Se presentan nuevos registros para el roedor sigmodontino *Pseudoryzomys simplex* en Argentina, totalizando 28 localidades conocidas (provincias de Formosa, Chaco y Santa Fe). El límite sur de la especie se encontraría hacia los 30°S y su distribución, en Argentina, se restringe principalmente al Chaco oriental.

Key words: Sigmodontinae, Oryzomyini, Neotropics, biogeography

Palabras clave: Sigmodontinae, Oryzomyini, Neotrópico, biogeografía

Pseudoryzomys simplex (Winge, 1887) is an oryzomyne rodent widely distributed in tropical and subtropical lowlands of South America. Following Voss and Myers (1991), collecting localities indicate that *P. simplex* is distributed in eastern Bolivia, eastern and central Brazil, western Paraguay, and northeastern Argentina. Despite this large distribution, the species is poorly known, and only a few specimens are housed in museum collections (Voss and Myers, 1991).

Massoia (1976) reviewed the knowledge of this rodent in Argentina mentioning only three localities, one of which was earlier mentioned by Hershkovitz (1959), from the provinces of Formosa and Chaco. Later, Contreras and Berry (1982) reported additional specimens from Chaco province.

Analyses of Barn Owl (*Tyto alba*, Tytonidae, Strigiformes) pellets and recent trapping at

several localities show an unexpected frequency and wide distribution of *P. simplex* in north-eastern Argentina. The studied specimens can be referred to this species by the following combination of morphological characters: short rostrum, narrow interorbital region, long palate with prominent posterolateral palatal pits, low crowned molars, first upper and second molars with small mesolophs (see Voss and Myers, 1991). Our data plus an extensive bibliographic survey indicate the following geographic distribution of this rodent in Argentina (localities arranged by increasing latitude; the studied material is housed at the Centro Nacional Patagónico Mammal Collection, Puerto Madryn, Argentina [CNP]; **Fig. 1**):

1. Río Porteño, Misión Tacaaglé (24° 56' S, 58° 46' W, Department Pilagás, Province of Formosa): one trapped specimen reported by

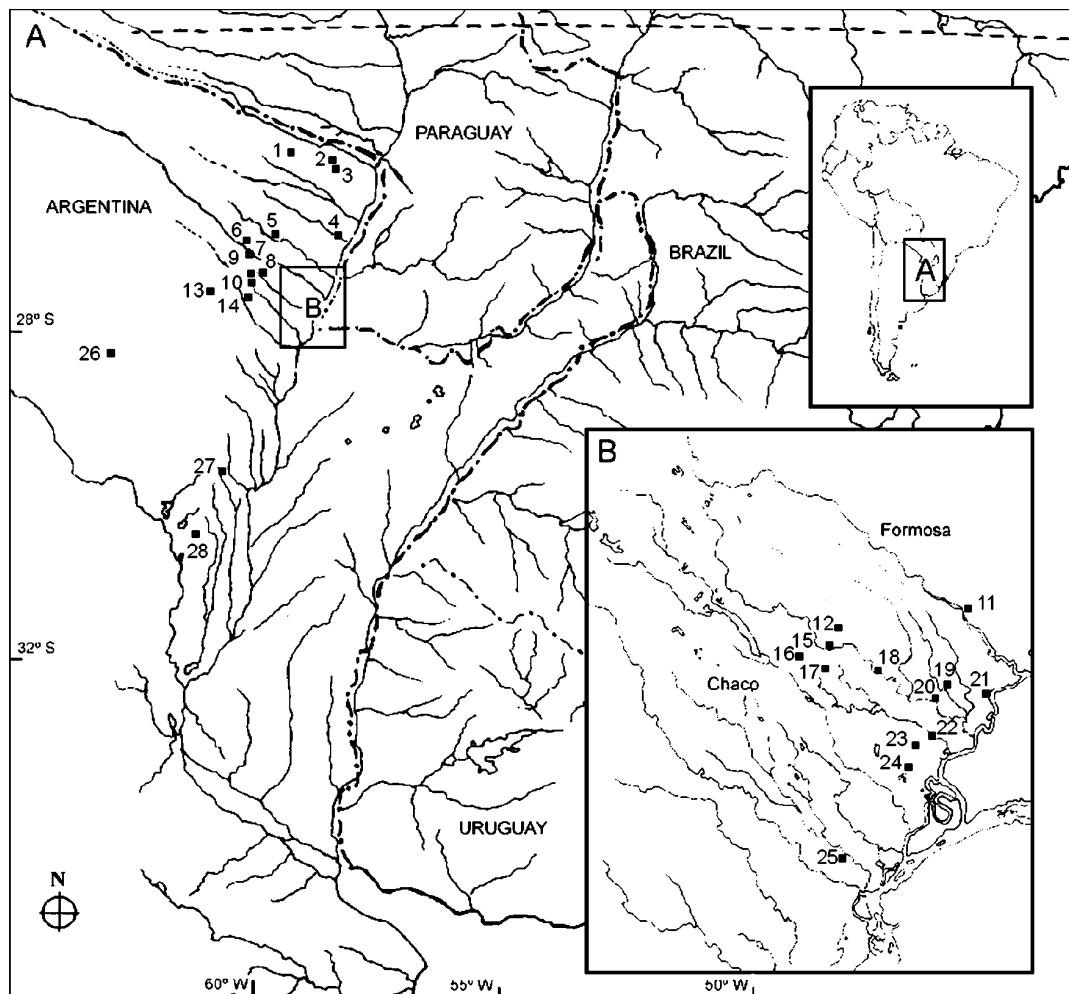


Fig. 1. Recording localities of *Pseudoryzomys simplex* in Argentina (see the main text for identification of numbers).
Localidades de registro para Pseudoryzomys simplex en Argentina (véase el texto para el detalle numérico).

Hershkovitz (1959, 1962; see also Voss and Myers, 1991);

2. Abadie-cué, Río Pilcomayo National Park (25° 08' S, 58° 08' W, Department Pilcomayo, Province of Formosa): several trapped specimens reported by Heinonen Fortabat (in press);

3. Laguna Naick Neck (25° 13' S, 58° 07' W, Department Pilcomayo, Province of Formosa): remains from owl pellets reported by Heinonen Fortabat (in press);

4. Estancia Guaycolec (25° 58' 39" S, 58° 11' 40" W, Department Formosa, Province of Formosa): remains from owl pellets reported by Massoia et al. (1997);

5. Reserva Ecológica El Bagual (26° 10' S, 58° 56' W, Department Laishi, Province of Formosa): several trapped specimens reported by Pardiñas and Teta (in press);

6. Villa Dos Trece (= Kilómetro 213; 26° 10' S, 59° 21' W, Department Pirané, Province of Formosa): skulls and mandibles from owl pellets (CNP 763; this study);

7. Zapallar Norte (26° 27' 17" S, 59° 22' 24" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 764; this study);

8. Colonia Bermejo (26° 28' 20" S, 59° 15' 52" W, Department Libertador General San

Martín, Province of Chaco): one trapped specimen reported by Massoia (1976);

9. General San Martín (26° 32' 01" S, 59° 19' 17" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 765; this study);

10. 4 km S General San Martín (26° 33' 06" S, 59° 20' 02" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 766; this study);

11. Villa Escolar (26° 37' S, 58° 40' W, Department Laishi, Province of Formosa): skulls and mandibles from owl pellets (CNP 767; this study);

12. 5 km N Selvas del Río de Oro (26° 47' 16" S, 58° 57' 24" W, Department Libertador General San Martín, Province of Chaco): one trapped specimen (see below);

13. Presidencia Roque Sáenz Peña (26° 47' 17" S, 60° 26' 43" W, Department Comandante Fernández, Province of Chaco): two trapped specimens reported by Massoia (1976);

14. Capitán Solari (26° 48' 05" S, 59° 34' 08" W, Department Sargento Cabral, Province of Chaco): remains from owl pellets reported by Massoia et al. (1995a);

15. Selvas del Río de Oro (26° 48' 15" S, 58° 57' 25" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 768; this study);

16. Loma Florida (26° 48' 55" S, 59° 06' 50" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 769; this study);

17. La Eduvigis (26° 51' 42" S, 59° 04' 48" W, Department Libertador General San Martín, Province of Chaco): skulls and mandibles from owl pellets (CNP 770; this study);

18. Lote 16 (26° 51' 53" S, 58° 47' 43" W, Department Bermejo, Province of Chaco): skulls and mandibles from owl pellets (CNP 771; this study);

19. 5 km N of General Vedia (26° 54' 16" S, 58° 37' 53" W, Department Bermejo, Province of Chaco): skulls and mandibles from owl pellets (CNP 772; this study);

20. General Vedia (26° 55' 49" S, 58° 39' 33" W, Department Bermejo, Province of

Chaco): skulls and mandibles from owl pellets (CNP 773; this study);

21. Pueblo Viejo, Puerto Bermejo (26° 56' 04" S, 58° 30' 06" W, Department Bermejo, Province of Chaco): skulls and mandibles from owl pellets (CNP 774; this study);

22. Las Palmas (27° 03' 47" S, 58° 42' 17" W, Department Bermejo, Province of Chaco): skulls and mandibles from owl pellets (CNP 775; this study);

23. Cancha Larga (27° 04' 37" S, 58° 43' 51" W, Department Bermejo, Province of Chaco): skulls and mandibles from owl pellets (CNP 776; this study), and remains from owl pellets reported by Massoia et al. (1999);

24. Estancia Las Rosas and Paso Mono (ca. 27° 30' S, 58° 47' W, Department Bermejo, Province of Chaco): two trapped specimens reported by Contreras and Berry (1982);

25. Colonia Río Tragadero (27° 22' S, 58° 57' W, Department San Fernando, Province of Chaco): one trapped specimen reported by Contreras and Berry (1982);

26. Santa Margarita (28° 18' 03" S, 61° 33' 11" W, Department 9 de Julio, Province of Santa Fe): remains from owl pellets reported by Massoia et al. (1995b);

27. Berna (29° 15' 55" S, 59° 52' 02" W, Department General Obligado, Province of Santa Fe): two specimens trapped by R. González Ittig housed at CNP (CNP 733 and CNP 734; this study);

28. Pedro Gómez Cello (30° 01' 59" S, 60° 18' 08" W, Department San Justo, Province of Santa Fe): skulls and mandibles from owl pellets (CNP 777; this study)

Pseudoryzomys simplex is often consumed by the owl *Tyto alba*, being the second commonest prey after *Holochilus chacarius* Thomas (Rodentia: Cricetidae) in Formosa and Chaco provinces. The absence of *P. simplex* in an owl pellet sample from Colonia Silva (30° 26' 59" S, 60° 26' 15" W, Province of Santa Fe), located 48 km by route south of Pedro Gómez Cello (locality #28), suggests that the southern limit of the species' distribution may be somewhere between these two localities. The eastern distributional limit of this species may be the río Paraná. Collecting localities (Fig. 1)

suggest that, in Argentina, *P. simplex* is mainly restricted to the Eastern Chaco biome.

A trapping effort of 1,500 trap-nights (July 2000, winter season) produced one *P. simplex* from Selvas del Río de Oro (locality #12). This specimen (CNP 735), captured at night, was a subadult male without signals of reproductive activity (measurements [in mm]: Total length, 178; length of tail, 80; length of ear from notch, 15; length of hind foot [with claw/without claw], 28.5/26; weight, 20 g).

Several authors (Massoia, 1976; Contreras y Berry, 1982; Voss y Myers, 1991) discussed the environmental conditions of the habitats occupied by *P. simplex*, regarding it as "a creature of open (unforested) tropical and subtropical lowland habitats" (Voss and Myers, 1991:425). At Selvas del Río de Oro this rat was trapped in a marsh densely covered by palustrine vegetation, with *Cyperus giganteus* ("pirf") and *Thalia* sp. ("pehuajó") as dominant elements, surrounded by forested areas. Other rodents trapped together with *P. simplex* were *Holochilus chacarius*, *Scapteromys aquaticus* Thomas, *Oligoryzomys microtis* (Allen), and *O. chacoensis* (Myers and Carleton).

Finally, this note points out the importance of the study of owl pellets in mammal surveys. For example, the first mention of *P. simplex* for the state of São Paulo (Brazil) was made by Mottá Junior (1996) based on *T. alba* owl pellets, enlarging the known geographic distribution 2,000 km far away from closest earlier records.

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