

Short communication

New records of *Galictis cuja* (Molina, 1782) (Carnivora, Mustelidae) in Southern Patagonia

By F.J. Prevosti and A. Travaini

Departamento Científico Paleontología Vertebrados, Museo de La Plata, La Plata, Buenos Aires, Argentina; Estación Biológica de Doñana, Sevilla, España

Receipt of Ms. 15.6.2004

Acceptance of Ms. 2.3.2005

Key words: *Galictis cuja*, new records, southern Patagonia

The lesser grison, *Galictis cuja* (Molina, 1782), is a small mustelid (± 1.6 kg) with a wide distribution in South America (Redford and Eisenberg 1992). It is found in different habitats, e.g., dry deciduous tropical forest (Cerrado), wet forest, Andean grasslands, xeric Chaco, pampean grassland and steppes. These habitats have a great variation in temperatures, precipitation, and elevation from the seashore to >4.800 m (Redford and Eisenberg 1992; Mares et al., 1996; Anderson 1997; Eisenberg and Redford 1999; Yensen and Tarifa 2003). The lesser grison preys mainly on small rodents like sigmodontines (e.g., *Phyllotis*, *Oryzomys*, *Akodon*), octodontids (e.g., *Ctenomys*, *Octodon*) and cavies (e.g., *Microcavia*, *Cavia*, *Kerodon*), hares and rabbits (e.g., *Lepus*, *Oryctolagus*) as well as birds, reptiles, and frogs (Ebensperger et al., 1991; Diuk-Wasser and Cassini 1998; Cajal and Bonaventura 1998; Zapata et al., 2000).

Galictis cuja is distributed from southeastern Peru, western Bolivia and southern Brazil, throughout most of Paraguay and Uruguay, to southern Patagonia in Chile and Argentina (Cabrera 1958; Redford and Eisenberg 1992; Mares et al. 1996; Anderson 1997; Eisenberg and Redford 1999; Jayat et al., 1999; Yensen and Tarifa 2003). New records in the last 30

years have extended our knowledge about southern limit of the distribution to southernmost Patagonia (Texera 1974; Gil 1991; Massoia et al., 1993; Heinonen Fortabat and Chebez 1997).

Until 1974, the most southern record of *G. cuja* in Chile was Valdivia ($39^{\circ} 46'S$, $73^{\circ} 25'W$), but Texera (1974) reported two specimens from "Estancia Las Cumbres" ($50^{\circ} 45'S$, $72^{\circ} 25'W$) and "Estancia Brazo Norte" ($52^{\circ} 03'S$, $70^{\circ} 05'W$) in the Magallanes region (Fig. 1), more than 1000 km south of Valdivia. Redford and Eisenberg (1992) suggested that these specimens may actually belong to *Lyncodon patagonicus*, but lower second molars are present and the measurements are more appropriate for *G. cuja* (Yensen and Tarifa 2003). Recently, Venegas and Sielfeld (1998) corroborated the presence of *G. cuja* in the Ultima Esperanza and Magallanes region, and at localities on Península de Brunswick, and remarked the increase in sightings in the previous year in spite of hard winters (Fig. 1).

The situation is similar in Argentina, where the southern limit was thought to be in Chubut Province (e.g., Cabrera 1958; Daciuk 1974; Mares et al. 1996; Tell et al., 1997). Also here, recent records have changed this perception (Gil 1991; Massoia et al. 1993;

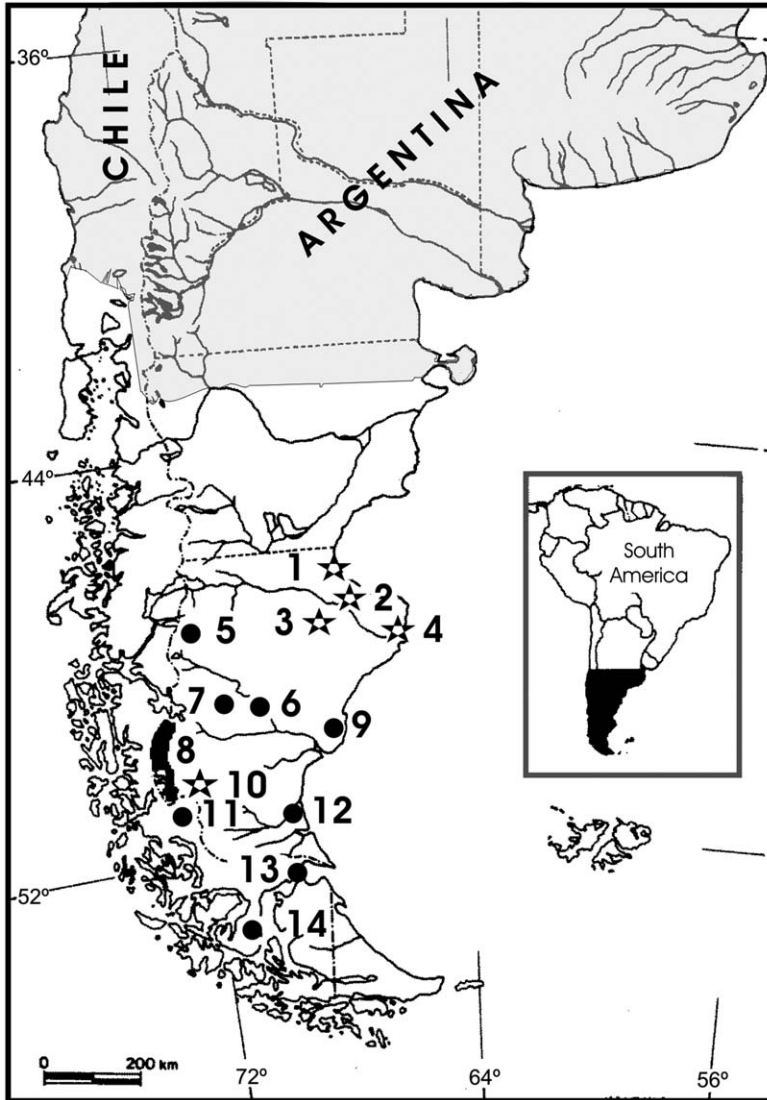


Fig. 1. Distribution of *G. cuja* in southern Chile and Argentina. Gray: distribution of *G. cuja* in southern South America priorly publications of Texera (1974) and Gil (1991) (see Cabrera 1958; Mares et al. 1996; Daciuk 1974). (1) Caleta Olivia; (2) Estancia La Leona; (3) Bosques Petrificados Natural Monument; (4) Puerto Deseado; (5) Perito Moreno National Park; (6) Río Chico; (7) Lago Cardiel; (8) Los Glaciares National Park; (9) Cañadon Darwin; (10) Cerro Verlika; (11) Estancia Las Cumbres; (12) Puerto Coig; (13) Estancia Brazo Norte; (14) Península de Brunswick. Stars: new records.

Heinonen Fortabat and Chebez 1997). The lesser grison was recorded at Puerto Coig (50° 57'S, 69° 13'W) and Cañadon Darwin (49° 37'S, 67° 45'W) (Gil 1991; Parera 2002)

and Massoia et al. (1993) listed *G. cuja* among the mammals found in *Bubo virginianus* pellets from Lago Cardiel (48° 57'S, 71° 25'W; Fig. 1). Additionally, Heinonen Fortabat

and Chebez (1997) mention this species for Los Glaciares (49° 58'S, 73° 08'W), Perito Moreno National Park (47° 48'S, 72° 14'W), and Bosques Petrificados Natural Monument (47° 52'S, 68° 00'W) (Fig. 1).

All these mentions, except that of Texera (1974), are only taxonomic lists or pellet items, without descriptions, figures, measurements, collection or collection number of the specimens.

In this note we present new records of *G. cuja* from Santa Cruz Province, Argentina, based on skeletal and skin remains (Table 1), and compile previous published records in southern Patagonia (Fig. 1).

The new specimens were determined as *G. cuja*, by the combination of size, presence of P2/2 and m2, and several cranial and dentary characteristics (e.g., width of the postorbital constriction, development of the P4 lingual cingulum). They are deposited at the Colección de Mastozoología, Departamento Científico Zoología Vertebrados, Museo de La Plata (MLPMa), the Colección del Parque Nacional "Bosques Petrificados" (PNBP), and the Colección del Centro de Investigaciones de Puerto Deseado, Universidad de la Patagonia Austral (CIPD).

Measurements: CBL: condylobasilar skull length, between the anterior border of the premaxillary to the caudal border of the occipital condyles; POCW: width of the post-orbitary constriction behind the postorbital process; LP4: maximum length of the upper carnassial (P4); Lm1: maximum length of the lower carnassial (m1); LM: length of the mandible between the anterior border and the posterior border of the condyle.

These records from Santa Cruz Province were collected at the following localities: (1) CIPD 1. 10 km near Puerto Deseado (47° 44'S, 65° 53'W). Skull; (2) CIPD 2. 30 km near Caleta Olivia (46° 26'S, 67° 31'W) Skull; (3) MLP Ma 19-XII-02-3. a mandible with the entire dentition, collected in 1998 at Cerro Verlika (50° 36'S, 72° 16'W); (4) PNBP S/N°. Bosques Petrificados Natural Monument (47° 52'S, 68° 00'W) Skin. This material was previously mentioned as *L. patagonicus* by Prevosti and Pardiñas (2001), but was checked again. This skin has a diagonal, buffy, narrow stripe on the forehead and shoulder, and lacks the black nuchal spot typical for *L. patagonicus*. Thus, it was determined as *G. cuja*; (5) CIPD 5. Estancia La Leona (47° 27'S, 67° 36'W), 15 km southwest of Aguada Grande. Skull and baculum. Male.

These new records of *G. cuja* in Santa Cruz extend the range of the species in Argentina more than 244, 000 km², confirm the presence of this species at least to 50° 36' South and increase confidence for anecdotal southernmost records. These records show that *G. cuja* are adaptable to the cold and arid climate of southern Patagonia steppe habitats.

In the light of these new records of *G. cuja* in Santa Cruz, we confirm an old and ignored mention of Lista (1880), who found a weasel ("*Galictis* (?)") very similar but smaller than *G. vittata* and different from *L. patagonicus* – at Rio Chico (≈49° 16'S, 69° 16'W; Fig. 1). This might be an early mention of *G. cuja* from southern Patagonia.

Acknowledgements

We thank S. Zapata for her collaboration and for preparing the materials collected and deposited at the CIPD. Special thanks go to E. Jensen and T. Tariffa, for useful comments, and to F. Martin for donation of the Cerro Verlika exemplar. A. Parera gave some interesting information. We thank Prof. Dr. H. Schliemann and an anonymous referee for the comments. For financial support to FJP: Comisión de Investigaciones Científicas de la Provincia de Buenos Aires (CIC).

Table 1. Measurements (mm) of the new exemplars of *G. cuja* from the Santa Cruz Province.

	CIPD 1	CIPD 2	MLP Ma 19- XII-02-3	CIPD 5
CBL	80.1	76.5		82.1
POCW	18.4	19.5		19.2
LP4	10.4	8.8		9.0
Lm1	10.4	9.9	8.1	9.5
LM	49.3	47.5	41.6	48.5

References

- Anderson, S. (1997): Mammals of Bolivia, taxonomy and distribution. *Bull. Am. Mus. Nat. Hist.* **231**, 1–652.
- Cabrera, A. (1958): Catálogo de los Mamíferos de América del Sur, Parte I: Revista del Museo Argentino de Ciencias Naturales "Bernardino Rivadavia". *Zoología* **4**, 1–307.
- Cajal, J. L.; Bonaventura, S. M. (1998): Densidad, biomasa y diversidad de mamíferos en la Puna y Cordillera Frontal. In: Bases para la conservación y manejo de la puna y Cordillera Frontal. El rol de las reservas de biosfera, Ed. by J. L. Cajal. Buenos Aires: Fundación para la Conservación de las Especies y del Medio Ambiente.
- Daciuk, J. (1974): Notas faunísticas y bioecológicas de Península Valdés y Patagonia, XII: mamíferos colectados y observados en la Península Valdés y zona litoral de los golfos San José y Nuevo (Provincia de Chubut, Republica Argentina). *Physics* **33**, 23–39.
- Diuk-Wasser, M. A.; Cassini, M. H. (1998): A study of the diet of minor grisons and a preliminary analysis of their role in control of rabbits in Patagonia. *Studies of Neotropical Fauna and Environment* **33**, 3–6.
- Ebensperger, L. A.; Mella, J. E.; Simonetti, J. A. (1991): Trophic relationships among *Galictis cuja*, *Dusicyon culpaeus*, and *Tyto alba* in central Chile. *J. Mammalogy* **72**, 820–823.
- Eisenberg, J. F.; Redford, K. H. (1999): Mammals of the Neotropics, 3: the Central Neotropics. Illinois: University of Chicago Press.
- Gil, G. (1991): Los mamíferos terrestres de la costa de la provincia de Santa Cruz y su conservación. VII Jornadas Argentinas de Mastozoología Resúmenes **1**, 11.
- Heinonen Fortabat, S.; Chebez, J. C. (1997): Los mamíferos del los Parques Nacionales de la Argentina. Buenos Aires: Editorial Lola.
- Jayat, J. P.; Barquez, R. B.; Díaz, M. M.; Martínez, P. J. (1999): Aportes al Conocimiento de la Distribución de los Carnívoros del Noroeste de Argentina. *Mastozoología Neotropical* **6**, 15–30.
- Lista, R. (1880): Mis exploraciones y descubrimientos en la Patagonia, 1877–1880. Buenos Aires: Imprenta de Martín Biedma.
- Mares, M.; Bárquez, R.; Braun, J.; Ojeda, R. (1996): Observations on the mammals of Tucuman Province, Argentina, I: systematics distribution and ecology of the Didelphimorphia, Xenarthra, Chiroptera, Primates, Carnivora, Perissodactyla, Artiodactyla, and Lagomorpha. *Ann. Carnegie Mus.* **65**, 89–152.
- Massoia, E.; Chebez, J. C.; Heinonen Fortabat, S. (1993): Depredación de pequeños mamíferos por *Bubo virginianus* en el Lago Cardiel, Departamento Lago Buenos Aires, Provincia de Santa Cruz. *Boletín Científico Asociación Protección de la Naturaleza* **26**, 17–21.
- Parera, A. (2002): Los mamíferos de la Argentina y la región austral de Sudamérica. Editorial El Buenos Aires: Ateneo.
- Prevosti, F. J.; Pardiñas, U. F. J. (2001): Variaciones corológicas de *Lyncodon patagonicus* (Carnivora, Mustelidae) durante el Cuaternario. *Mastozoología Neotropical* **8**, 21–39.
- Redford, K. H.; Eisenberg, J. F. (1992): Mammals of the neotropics, 2: the Southern Cone, Chile, Argentina, Uruguay, Paraguay. Chicago: University of Chicago Press.
- Tell, G.; Izaguirre, I.; Quintana, R. (1997): Flora y fauna patagónicas. Bariloche: Caleuche.
- Texera, W. A. (1974): Nuevos antecedentes sobre mamíferos de Magallanes, 3: El Quique (*Galictis cuja cuja*), (Mammalia: Mustelidae) una nueva adición a la fauna mamal de Magallanes Chile. *Anal. Inst. de la Patagonia* **5**, 195–198.
- Venegas, C.; Sielfeld, W. (1998): Catálogo de los vertebrados de la Región de Magallanes y Antártica Chilena Edit. Punta Arenas: Universidad de Magallanes.
- Yensen, E.; Tarifa, T. (2003): *Galictis cuja*. *Mammalian Species* **728**, 1–8.
- Zapata, S. C.; Travaini, A.; Delibes, M.; Martínez Peck, R. (2000): Segregación trófica entre dos mustélidos patagónicos. XV Jornadas Argentinas de Mastozoología, Resúmenes **1**, 118.

Authors' addresses:

Francisco Juan Prevosti, Museo de La Plata, Becario de la Comisión de Investigaciones Científicas de la Provincia de Buenos Aires (CIC), Departamento Científico Paleontología Vertebrados, Paseo del Bosque S/Nº, La Plata, Buenos Aires, 1900, Argentina (e-mail: protocyon@hotmail.com)

Alejandro Travaini, Centro de Investigaciones de Puerto Deseado, UNPA-CONICET, CC 238, Avenida Prefectura Naval S/N, 9050 Puerto Deseado, Santa Cruz, Argentina