Second record of Tadarida brasiliensis (I. Geoffroy St.-Hilaire, 1824) (Chiroptera, Molossidae) in Santa Cruz Province, Argentina

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Abstract: Although Tadarida brasiliensis is one of the most widely distributed species of bats in Argentina, it is nevertheless extremely scarce in Patagonia. We report a second record of T. brasiliensis for Santa Cruz province, which fills a gap in the geographical distribution of this species in that province and is also the third southernmost record for the species and for any molossid bat in the world.

Key words: Argentine Patagonia, new record, southern distribution, Molossidae

Molossid bats are widely distributed throughout the world (Simmons 2005): they are especially diverse in tropical and subtropical regions and are considered “tropical bats”, although they can penetrate temperate zones in Europe as well as in the Americas (Barquez et al. 1999, 2013; Simmons 2005). Species from the genus Tadarida can reach high latitudes, including both the northernmost known record for molossid bats: Tadarida teniotis (46° N; Arlettaz et al. 2000) and the southernmost one Tadarida brasiliensis (52° S; Barquez et al. 2013). This last species is common and abundant in tropical regions, where they form colonies with millions of individuals. It occurs throughout most of the Western Hemisphere and is widely distributed in South America (Barquez et al. 1999). In Argentina, T. brasiliensis is also one of the most widely distributed species and is known from numerous records (Barquez et al. 1999). Nevertheless, records from Patagonia are extremely scarce not only due to the species’ responses to latitudinal effects but also for the lack of bats studies in Patagonia (Nabteet al. 2011; Giménez et al. 2012; Barquez et al. 2013). Recently, a specimen of T. brasiliensis has been reported for the first time for Santa Cruz, in the Argentine Patagonia (Barquez et al. 2013), which constitutes the southernmost record for this species. Here we report a new locality record for T. brasiliensis in Santa Cruz province, constituting the third southernmost record for the species and for any molossid bat in the world.

A living adult male specimen of T. brasiliensis was found on 31 March 2015 hanging from the alarm sensor inside the living room of a house in the city of Puerto Deseado, located on the Atlantic coast (47°45′15″ S, 065°54′01″ W) (Figures 1 and 2). The area belongs to the Patagonian Phytogeographical Province (sensu León et al. 1998). It is a flat steppe of shrubs and grass interrupted by ravines, dominant tussock grass species are...
The specimen presented all the diagnostic features listed for *T. brasiliensis* (Wilkins 1989; Barquez et al. 1999): distal half of the tail extending freely beyond the uropatagium, ears with parallel furrows on the internal surface separated by a small space not extending beyond the tip of the snout when laid forward; tragus blunt and short; lips with deep folds and grooves; rostrum short; length of forearm 41 to 46 mm (Figure 3). External measurements for the captured specimen were taken with a dial caliper (precision = 0.1 mm): total length = 92.0 mm; tail length = 30.4 mm; ear length = 10.8 mm; hind foot length = 8.5 mm; forearm length = 42.3 mm; body weight 11.5 g. All the measurements fall inside the ranges for the species in Argentina (Barquez et al. 1999).

This new record of *Tadarida brasiliensis* is the second for the species for Santa Cruz province, and fills a distributional gap between those recorded at Rada Tilly (Chubut province, 300 km north of Puerto Deseado; Nabte et al. 2011) and Cabo Virgenes (Santa Cruz province, 700 km south of Puerto Deseado; Barquez et al. 2013) (Figure 2). It is also the third southernmost record for the species and for any molossid bat in the world, after the reports of Hill (1988) for Islas Malvinas (Falkland Islands) and Barquez et al. (2013) (Figure 2). Records of *T. brasiliensis* for southern continental Patagonia have been reported for the first time only in recent years. Large scale studies are necessary to

*Stipa* spp.; and the dominant shrub species are *Nassauvia glomerulosa*, *Chuquirga aurea*, *Acantholippia seriphoides*, *Lycium chilense*, *Azorellaca espitosa*, *Mulimum spinosum*, *Mulgaraea tridens*, *Colliguja jaintegerrima*, *Senecio filagnoides*, *Prosopis denuans*, and *Berberis heterophilla* (León et al. 1998).

At the laboratory of the Centro de Investigaciones de Puerto Deseado (UNPA-UACO) the specimen was weighed, sexed, and measured; later it was released during the evening. The specimen was considered an adult since it did not have cartilage streaks in the metacarpalia and phalanx articulations (Anthony 1988).

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evaluate the current distribution of this species in Santa Cruz province as a base for its conservation in these arid lands.

**LITERATURE CITED**


**Authors’ contribution statement:** SZ, DP, AM and AT collected the specimen in SZ and AT’s house, as well as took measurements and photos in the lab; AM released the bat; DP prepared the Figure 2; SZ wrote the text and all authors revised it.

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