

# SPECIMEN RECORD CONFIRMS BROAD-BILLED PRION *PACHYPTILA VITTATA* PRESENCE IN CHILEAN WATERS

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## ABSTRACT

PORTFLITT-TORO, M., MIRANDA-URBINA, D. & LUNA-JORQUERA, G. 2018. Specimen record confirms Broad-billed Prion *Pachyptila vittata* presence in Chilean waters. *Marine Ornithology* 46: 69–70.

We report a specimen record of a Broad-billed Prion found during a beached-bird survey in northern Chile on 28 February 2014. The carcass was in an advanced state of decomposition and the cause of death was unknown. Identification was based on morphological comparison with other prions. This record confirms the species' occurrence offshore of Chile and emphasizes the importance of beached-bird surveys to increase knowledge about the dispersal of vagrant seabirds.

**Key words:** beached-bird surveys, Coquimbo, Chile, *Pachyptila vittata*, Peru Current, seabird distribution

The Broad-billed Prion *Pachyptila vittata* is a common resident of sub-Antarctic and subtropical waters of the southern Atlantic and

Pacific region; in the South Atlantic, it breeds at Tristan da Cunha and Gough Island, and in the South Pacific at Chatham, Snares, and Antipodes islands, New Zealand (Harper 1980, Hughes 1982, Klages & Cooper 1992, Blight & Woehler 2008). Here, we report the first documented observation of the Broad-billed Prion in Chilean waters, where it is a rarely found species.

During 2013, we launched the Red de Varamientos de Aves Marinas (REVAM), a citizen-science initiative to provide basic information about stranded seabirds in Chile (<http://revamchile.weebly.com>). On 28 February 2014, during surveys at Coquimbo Bay (29°56'S, 71°17'W), in northern Chile (Fig. 1), we found a carcass of a Broad-billed Prion. Although the bird was badly decomposed, we obtained basic morphometric measurements. Identification was made based on width and length of the bill, and size and color of the unguis (small and grooved), culminicorn (width and black), and latericorn (large and metallic gray) (Fig. 2); dorsal plumage coloration was also useful in identification (Harper 1980).

Morphometric measurements of the Coquimbo specimen are consistent with those of this species obtained from previous studies (Table 1). To our best knowledge, this is the first specimen record for Chile. The specimen, considered to be a juvenile, was added to the bird collection of the Universidad Católica del Norte, Coquimbo, Chile (specimen number: CBUCN EC\_5241.00).

Records of Broad-billed Prions along the Pacific coast of South America are scarce. One was found dead among several carcasses of the Slender-billed Prion *P. belcheri* in Peru (Hughes 1982). Several year later, between 10 July and 18 September 2009, six Broad-billed Prions (one live and five carcasses) were found between 17°S and 18°S, along the coast of southern Peru (Hidalgo-Aranzamendi *et al.*



**Fig. 1.** Locations of Broad-billed Prion specimen records from Peru and Chile (Squares: previous records; Circle: this record).

2010). Between 1980 and 1995, 22 Broad-billed Prions and several hundred Slender-billed Prions were observed during winter between 3°S to 50°S, offshore of Peru and Chile (Spear & Ainley 2008). An individual was sighted in Arica at 18.5°S, northern Chile in 2010 (Raúl Herrera, pers. comm.), constituting an unconfirmed record. Another prion, the Antarctic Prion *P. desolata*, has been reported in January at sea off Coquimbo at 29°S (Weichler *et al.* 2004).

The Broad-billed Prions' nearest breeding colonies to coastal Chile are ~5500 km away, on islands in the South Atlantic Ocean, and ~9600 km away, in New Zealand (Harper 1980). The Broad-billed Prions that occur off Chile are most likely from New Zealand breeding colonies, given that several New Zealand breeding seabird species spend non-breeding periods in the productive waters along coastal Peru and Chile, including several albatrosses, gadfly petrels, and *Procellaria* species (Brinkley *et al.* 2000; Spear *et al.* 2003, 2005; Rayner *et al.* 2012).

Our discovery is further proof that beached-bird monitoring programs can provide valuable information about seabird occurrence, including

records on rare species outside of their usual range, that may help to indicate changes in distribution or climate conditions.

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**Fig. 2.** Photograph of skull of Broad-billed Prion collected in northern Chile on 28 February 2014; photo: V. Castelletto.

**TABLE 1**  
Comparison of morphological measurements from the Broad-billed Prion collected in Coquimbo, northern Chile, with those from other records

Measure	Mean (range), mm				
	Harper 1980	Hughes 1982	Klages & Cooper 1992	Hidalgo-Aranzamendi et al. 2010	This study
Bill length	33.8 (31.9–36.2)	–	35.1 (32.1–37.0)	35.3 (34.0–38.5)	32.6
Bill width	20.7 (19.0–22.5)	21.6	21.3 (18.0–23.7)	19.2 (18.5–20.1)	19.0
Wing length	205.6 (195.0–220.0)	–	215.4 (208.0–225.0)	205.5 (202.0–209.0)	209.0
Tail length	99.0 (90.0–104.0)	–	–	108.0	110.8
Head length	–	–	73.8 (70.0–76.8)	–	72.0
Tarsus length	–	–	37.2 (34.0–43.3)	35.1 (35.0–35.2)	35.4