

The occurrence of vagrant seabirds inland in Chile

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Se reporta el caso de diez especies de aves marinas que ocurren como errantes en el interior de Chile. En algunos casos como las golondrinas de mar *Oceanites* spp., algunos ejemplares, inclusive juveniles, han sido encontrados a más de 2.400 m, en el interior de la cordillera de los Andes. El hallazgo de aves marinas en el interior ha sido relacionado con fuertes tormentas o vientos en la costa o en el mar, excepto en el caso de la Gaviota Garuma *Larus modestus*, que es la única especie documentada nidificando en el desierto interior de Chile. Mucho se ha especulado sobre la posible nidificación de dos especies de golondrinas de mar *Oceanodroma* sp. en el interior del desierto, pero hasta la fecha no se han encontrado nidos, sólo ejemplares momificados. Es posible que algunos de los ejemplares momificados también fueran aves errantes.

Introduction

Chile, on the west coast of South America, spans from 18° to 56°S. Its 4,200 km of coastline ranges from tropical waters in the north to cold temperate waters in the south. Chilean oceanic territory encompasses c.15 million km² and provides extensive seabird habitat¹⁷. One hundred and twelve species of seabirds have been recorded in Chilean territorial waters including Spheniscidae, Diomedidae, Procellariidae, Hydrobatidae, Pelecanoididae, Phaethontidae, Sulidae, Pelecanidae, Phalacrocoracidae, Fregatidae and Laridae¹.

Most information regarding seabird vagrancy is from the Northern Hemisphere^{3,15} and though Murphy¹⁵ mentions a few cases for the Southern Hemisphere he did not address the situation in Chile. Here I summarise published and unpublished records of seabird vagrancy for Chile.

Species accounts

Black-browed Albatross *Thalassarche melanophrys*

Bullock⁶ reported a bird identified as this species found at Fundo Santa Rita, near Angol, on the night of 15 August 1931. This locality is c.73–75 km inland. However, the photograph published in Bullock⁶ has a rather pale mantle (paler than one would expect for Black-browed) and a dark bill. Immature Black-browed have rather dark bills, but the individual concerned lacks the partial or incomplete greyish band from the nape to the breast, which is a feature of immature Black-browed. It could be a more advanced immature, but this is difficult to judge from the relatively poor photograph.

Southern Fulmar *Fulmarus glacialisoides*

According to Barros², during the austral summer of 1905 Carlos Reed registered large numbers of this petrel at different points inland from c.32°S to 38°S and ranging from c.70–100 km inland. Bullock⁵ in his annotated list of birds of Angol, reported one

of this species that fell into his house garden (c.73 km inland), on 30 December 1925.

Sooty Shearwater *Puffinus griseus*

Bullock⁶ reported one found in downtown Angol, 75 km inland on the night of 15 August 1931. Stresemann²² reported some potentially of this species at Pampa Colupito, Antofagasta, but they proved to be a colony of Grey Gulls *Larus modestus*⁹, which is the only seabird documented to nest in the desert.

Markham's Storm-petrel *Oceanodroma markhami*

Johnson¹² reported one with some traces of down found between Pica and Matilla, on 3 March 1942, c.85 km inland. Jaramillo (pers comm.) found one dead, on 15 November 1998, along the Pan-American Highway, where it crosses the Lluta River, c.5–10 km inland, which had traces of down. Demetrio⁸ reported a single bird found in Chuquicamata (22°S, at 2,694 m and c.130–150 km inland) on 4 May 1992, after several days of climatic instability. It was discovered alive and returned to the Antofagasta coast. This is the highest record for any vagrant seabird in Chile. Brooke⁷ alleged that this species nests in the desert of southern Peru, but failed to cite a reference for this. Jahncke¹¹ reporting breeding by the species on the Paracas Peninsula (which is not an inland site), where he found skeletons, wings and unhatched eggs but no live birds, and he presented no dates for his visits to the area. The specimen reported by Johnson¹² and that found by Jaramillo may have been vagrants.

Ringed Storm-petrel *Oceanodroma hornby*

According to Murphy¹⁴, Philippi reported two specimens in 1895, including a full-grown young found somewhere east of Taltal (apparently no specific locality was given). Subsequently, Stresemann²¹ reported the discovery of a mummified specimen

at Santa Luisa (25°13'S 79°09'W), a nitrate field 50 km inland and north-east of Taltal, at 1,483 m. Johnson¹² summarised many of these findings and added another locality at the Loa River inland of Tocopilla (c.60 km). In addition several other mummies have been found at different points and elevations in northern Chile and at one site in (southern?) Peru⁴. However, all findings were of mummies, which can be quite old and the specific time of death is unclear. None of the interior findings involved live birds; all were likely vagrants that succumbed in the dry desert.

Wilson's Storm-petrel *Oceanites oceanicus*

This Antarctic and subantarctic breeder moves north during post-breeding dispersal. Probably the population breeding in southern South America moves north via the Humboldt Current to at least Peru¹⁵, and perhaps regularly farther north, as it is reportedly occasional and rare off the California coast^{16,20}. Barros² reported several observations in March–April of birds at different localities in the Andes of Aconcagua and reported four specimens collected over three years around Rio Blanco at 1,400 m and c.110 km inland, as well as other specimens found in the high Andes of Aconcagua. Similarly, Schlatter¹⁷ reported three specimens and one observation from the Andes and around Santiago (see below). Some of these are now at the Los Angeles County Museum of Natural History (LACM) and at Museo Nacional de Historia Natural, Santiago (MNHN), with others (not seen) at Yale Peabody Museum (YPM) and the ex-Philippi collection (RAP). Two of those proved to be White-vented Storm-petrel *O. gracilis* (see below). However, I found 11 Wilson's Storm-petrels (MNHN 1667, 1957, 3606, LACM 25182, 25184, 25185, 25186, YPM 22548, 22809, and two uncatalogued RAP) that were taken inland. Three at LACM (25182, 25185, 25186), found on 10 May and 4 and 7 April, are juveniles, which had been indicated by Barros². These three have many downy feathers on the nape, rump, chest, lower belly and thighs.

The specimens were collected c.100–130 km inland and at 700–1,400 m, with some probably from higher elevations. The dates of the 11 specimens found inland are: February 1944, 27 March 1920, 4 April 1926, 5 April 1957, 7 April 1924, 8 April 1940, 18 April 1941, 23 April 1939, April 1936, 10 May 1954 and November 1966. Furthermore, Zotta²⁵ reported one collected on 22 January 1940 near Las Cuevas, Mendoza, Argentina (in the Andes close to the Chilean border), and mentions that the collector took it from a flock of 7–9 individuals. Zotta²⁵ considered that their origin might have been the Atlantic coast, but they are probably equally, if not more likely to have come from the Pacific.

White-vented Storm-petrel *Oceanites gracilis*

No inland specimens have previously been reported. However, Schlatter¹⁷ reported three specimens and one observation of vagrant Wilson's Storm-petrel. In tracing these, which are held at the Museo Nacional de Historia Natural, Santiago (MNHN), I discovered that one was actually a White-vented Storm-petrel (MNHN 3500), while the fourth, which was not preserved as a specimen, was presumably either a White-vented or Wilson's Storm-petrel. Similarly, of the specimens mentioned by Barros² as Wilson's Storm-petrels (see above) one is actually White-vented. This is now at LACM (25183). An additional specimen (MNHN 4722) was found in Pudahuel, c.100 km inland, on 17 May 1982. These were taken 100–125 km inland and at 700–2,800 m. The dates of the three inland specimens are 15 March 1961, 8 April 1924 and 17 May 1982.

One of the reasons for the confusion between Wilson's and White-vented Storm-petrels is that the juvenile plumage of Wilson's Storm-petrel has some white-tipped feathers on the lower vent¹⁴. Those that I attributed to White-vented had an extensive patch of white along the vent to the breast, which varied in intensity. Nevertheless, points to be aware are that: a) the intensity of white may be age related and b) the extension of white along the body might also be age related or due to the preparation of the specimen, or both.

Magellanic Diving-petrel *Pelecanoides*

magellani

Johnson *et al.*¹³ mentioned a bird apparently photographed on February 1970 at Lago Todos Los Santos, c.55 km inland. This is the only report for inland Chile of any diving-petrel.

Peruvian Pelican *Pelecanus thagus*

This is a strictly coastal species in Chile. Following a huge storm on the morning of 10 May 1995, a juvenile was found in Puente Alto, a southern suburb of Santiago, c.90 km inland. It was taken to the local police station and returned to the coast.

Guanay Cormorant *Phalacrocorax bougainvillii*

This cormorant is strictly coastal. Barros² observed several in San Felipe and Los Andes, 80–90 km inland, in early May 1925, following a large storm on the coast. Barros² also reported two specimens, one collected at Rio Blanco at 1,400 m, and a second found dead in the Valle Los Piuquenes, in the interior Andes, at 2,400 m. The two specimens are now deposited at LACM (25165, 25169). They were collected on 10 and 11 May 1925. On the labels, Barros indicated that the birds were forced inland by heavy storms on 8 May 1925.

Discussion

The most interesting of all the inland records are those of Ringed Storm-petrel, whose breeding grounds are still unknown. There are many reports of mummified specimens in the interior Atacama Desert, including some juveniles^{4,10,14,21,22}. None has an exact date of death and may therefore be of any age. Nevertheless, these findings have created the hypothesis that the species may breed in the desert^{10,14,15}, as does Grey Gull *Larus modestus*⁹. However, previous authors have not considered the possibility of vagrancy, which is stronger in the case of storm-petrels than has been realised.

Juveniles of Wilson's Storm-petrels have been found in interior central Chile. The nearest known breeding ground of Wilson's Storm-petrel is on the islands around Cape Horn, at c.55°S¹⁵, where nests have been found in December–January. The juveniles found inland, in April–May, in the Andes at 32°S and c.2,500 km from the nearest breeding area, might represent the vanguard of post-breeding and natal dispersal. Similarly, on the Atlantic coast, Murphy¹⁵ reported young birds collected by Beck, off Bahia, Brazil (12°59'S), between 15 April and 1 May.

Another storm-petrel that breeds off the Chilean coast is White-vented, for which the only known breeding site is a small island off the Coquimbo coast, at c.29°S¹⁸. The only nest found was in early August and possessed an egg. A specimen from the Galápagos (LACM 30287, collected on 22 February) also had some downy feathers on the lower belly and thighs. Storm-petrels have a long breeding season²⁴. The discovery of birds with downy feathers long after this indicates that juvenile Wilson's and White-vented Storm-petrels, and probably others in the area, retain some down over long periods or, less likely, that they possess an irregular breeding season, or more than one brood per year. Consequently, as juveniles of Wilson's Storm-petrels have been found in the Andes (around 32°S), at 700–2,800 m, it may be that the mummified specimens of Ringed Storm-petrel found in the inland desert were vagrants. The question remains as to where this species breeds: I suggest that smaller islands along the coast should be searched first. It may nest in small numbers rather than in large colonies like other species of storm-petrels.

Almost all cases of seabird vagrancy reported in Chile and elsewhere have been associated with large storms or strong winds at sea, usually a few days before the actual finding. Most findings were in April–May during the austral autumn, though I found data for other months as well. Ten seabird species have been registered as vagrants in Chile, but probably hundreds of cases go unreported or unnoticed by ornithologists. While the concept of desert-nesting storm-petrels is tantalizing, most

inland seabirds records in Chile are probably attributable to vagrancy.

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References

1. Araya, B. & Chester, S. (1993) *The birds of Chile*. Santiago: Latour.
2. Barros V., R. (1926) Notas ornitológicas. *Rev. Chil. Hist. Nat.* 30: 137–143.
3. Bourne, W. R. P. (1967) Long-distance vagrancy in petrels. *Ibis* 109: 141–167.
4. Bourne, W. R. P. & Harris, M. P. (1968) The name and breeding place of Hornby's (or the Ringed) Storm Petrel, *Oceanodroma hornbyi*. *Condor* 70: 283.
5. Bullock, D. S. (1929) Aves observadas en los alrededores de Angol. *Rev. Chil. Hist. Nat.* 32: 171–211.
6. Bullock, D. S. (1932) Nuevas aves observadas en Angol. *Rev. Chil. Hist. Nat.* 36: 30–32.
7. Brooke, M. de L. (2000) A search for the nesting colonies of Hornby's Storm Petrel in the Atacama Desert—April/May 1999. *Ibis* 142: 348–349.
8. Demetrio, L. (1993) Observaciones relevantes de Calama, año 1992. *Bol. Informativo UNORCH* 15: 8.
9. Goodall, J. D., Philippi, R. A. & Johnson, A. W. (1945) The nesting habits of the Peruvian Gray Gull. *Auk* 62: 450–451.
10. Hellmayr, C. E. (1932) The birds of Chile. *Field Mus. Nat. Hist., Publ. Zool. Ser.* 19.
11. Jahncke, J. (1993) Report on the first known Markham's Storm-Petrel breeding area. *Pacific Seabird Group Bull.* 20: 58.
12. Johnson, A. W. (1965) *The birds of Chile and adjacent regions of Argentina, Bolivia and Peru*, 1. Buenos Aires: Platt Establecimientos Gráficos.
13. Johnson, A. W., Hughes, R. A., Goodall, J. D., Millie, W. R. & Moffett, G. (1972) *Supplement to the birds of Chile and adjacent regions of Argentina, Bolivia and Peru*. Buenos Aires: Platt Establecimientos Gráficos.
14. Murphy, R. C. (1922) Notes on the tubinares, including records which affected the A.O.U. check-list. *Auk* 39: 58–65.
15. Murphy, R. C. (1936) *Oceanic birds of South America*, 2. New York: American Museum of Natural History.

16. National Geographic Society (1999) *Field guide to the birds of North America*. Washington DC: National Geographic Society.
17. Schlatter, R. P. (1973) Notas sobre observaciones de ejemplares errantes de *Oceanites oceanicus*, Golondrina de mar, Procellariiformes, en Sudamérica. *Bol. Orn.* 5 (2): 1–4.
18. Schlatter, R. P. (1984) The status and conservation of seabirds in Chile. In: Croxall, J. P., Evans, P. G. H. & Schreiber, R. W. (eds.) *Status and conservation of the world's seabirds*. Cambridge, UK: International Council for Bird Preservation (Tech. Publ. 2).
19. Schlatter, R. P. & Marín, M. (1983) Breeding of Elliot's Storm Petrel *Oceanites gracilis* in Chile. *Gerfaut* 73: 197–199.
20. Stallcup, R. (1990). *Ocean birds of the nearshore Pacific—a guide for the sea-going naturalist*. Stinson Beach, CA: Point Reyes Bird Observatory.
21. Stresemann, E. (1924) *Oceanodroma hornbyi* (Gray) aus chilenischen Salpeterfelde. *Orn. Monatsber.* 32: 61–63.
22. Stresemann, E. (1924) *Puffinus griseus* (Gmelin) Brütvogel in der nordchilenischen Pampa. *Orn. Monatsber.* 32: 61–63.
23. Stresemann, E. (1929) Eine weitere Fundstelle von *Oceanodroma hornbyi* in der chilenischen Salpeterwüste. *Orn. Monatsber.* 37: 80–81.
24. Warham, J. (1990) *The petrels: their ecology and breeding system*. San Diego: Academic Press.
25. Zotta, A. R. (1944) Notas ornitológicas (No VII). *Hornero* 8: 481–483.

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