

Vagrant Antarctic fur seal, *Arctocephalus gazella*, in northern Chile

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Abstract The Antarctic fur seal, *Arctocephalus gazella*, has a wide distribution range and breeds primarily in subantarctic and Antarctic locations of the Southern Ocean. We report the first record of this species in northern Chile in August, 2014. Although no external trauma was observed, the seal was presumed to be sick because it appeared to be underweight. This sighting is the northernmost record of this species on islands and the continental coastal areas of the southeastern South Pacific.

Keywords Antarctic fur seal · Vagrant · Northern Chile · SE South Pacific

Introduction

The Antarctic fur seal, *Arctocephalus gazella*, has a wide distribution range and breeds primarily in subantarctic and Antarctic locations of the South Atlantic and Indian Ocean sectors of the Southern Ocean (Forcada and Staniland

2009). Vagrant Antarctic fur seals have been recorded at several sites in the South Pacific (Cherem et al. 2004; Goodall et al. 2005, Acevedo et al. 2011) and South Atlantic Oceans (Bester and Reisinger 2010; Bester et al. 2014). We document the first record of an Antarctic fur seal in northern Chile, the northernmost sighting in the southeastern South Pacific.

While recording dead seabirds on Chungungo Beach, a rocky shore located in the Coquimbo Region, northern Chile (29°26'S, 71°18'W, Fig. 1), on August 17, 2014, we observed an Antarctic fur seal. Chungungo beach is a small management area located about 22 km south of the Humboldt Penguin National Reserve.

The animal was observed for at least 1 h to study its behavior and external body condition. Although no external trauma was observed, it appeared underweight because its ribs and iliac crest were prominent. Several days later, we returned to the place, but the fur seal was not found.

Discussion

The coastal system of Coquimbo is characterized by two major upwelling centers that form high primary productivity centers, which support high marine biodiversity. The marine mammal assemblage is composed of the marine sea otter (*Lontra felina*), the South American sea lion (*Otaria flavescens*), and 13 species of cetaceans (Thiel et al. 2007; Luna-Jorquera et al. 2012). The southern elephant seal (*Mirounga leonina*; Sepúlveda et al. 2007) and the southern fur seal (*Arctocephalus australis*; Luna-Jorquera unpub. data) have also been registered for the coast of Coquimbo. Although records have been previously reported for the coast of South America (Table 1), the sighting of an

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Fig. 1 Antarctic fur seals seen on the rocky shore of Chungungo Beach in the Coquimbo Region, northern Chile (photograph D Miranda-Urbina)

Antarctic fur seal in northern Chile can be considered as an exceptional case.

Records of vagrant Antarctic fur seals have been reported for the coast of Chile on Hoste Island, near Cape Horn (Texera 1974), and on the Juan Fernández Archipelago (Torres et al. 1984) (Fig. 2). Recently, three Antarctic fur seals (a juvenile male, an adult male, and one unidentified) were observed at Punta Dungenes, Strait of Magellan, and a juvenile was observed in Azopardo Bay, Seno Almirantazgo (Acevedo et al. 2011) (Fig. 2; Table 1).

Along the western South Atlantic, this species has been reported for the coasts of Argentina (Rodríguez et al. 1994; Goodall et al. 2005), Uruguay (Naya and Achaval 2006), and Brazil (Pinedo and Marmotel-Rosas 1987; Oliveira et al. 2001) (Table 1). In addition, Antarctic fur seals have been reported on islands of the eastern South Atlantic Ocean (Wilson et al. 2006; Bester and Reisinger 2010; Bester et al. 2014) (Fig. 2). The observation of *A. gazella* reported here represents the first record for northern Chile and the northernmost record of this species in continental coastal areas of the southeastern South Pacific.

Although it is not possible to determine the geographic origin of vagrant Antarctic fur seals, we believe that they likely come from relatively close colonies that would increase their likelihood of survival as they traveled to the north. Thus, vagrants from colonies at South Georgia are likely those recorded at islands and coasts of the southern South Atlantic. In contrast, vagrants recorded along the southern South Pacific coast could come from the South Shetlands or the Antarctic Peninsula. This new record implies a distance traveled of ~ 4200 km, in which is ~ 2700 km longer than that for the northernmost sightings of the Antarctic fur seals in the southern South Pacific Ocean (Chilean Patagonia). As suggested by Bester et al. (2014), northern records of Antarctic fur seals could be evidence of populations recovering after sealing. This hypothesis is supported by the increase from 50 to 21,190 animals at the South Shetland colonies over a period of 36 years (Hucke-Gaete et al. 2004).

Table 1 Historical data of vagrant Antarctic fur seal sightings in the Southern Ocean

Locality	Date	Individuals	References
Isla Hoste, Cabo de Hornos, Chile	September 1973	1	Texera (1974)
Isla Alejandro Selkirk, Chile	November 24, 1982	1	Torres et al. (1984)
Isla Robinson Crusoe, Chile	December 28, 1983	1	Torres et al. (1984)
Rio Grande do Sul, Brazil	September 1984	1	Pinedo and Marmotel-Rosas (1987)
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Tierra del Fuego, Argentina	1992	4	Goodall et al. (2005)
Tierra del Fuego, Argentina	1992	1	Goodall et al. (2005)
Rio Grande do Sul, Brazil	August/September 1994	3	Oliveira et al. (2001)
Santa Catarina, Brazil	2000/2010	1	Oliveira et al. (2011)
La Floresta, Uruguay	July 15, 2000	1	Naya and Achaval (2006)
Punta Colorada, Uruguay	September 15, 2002	1	Naya and Achaval (2006)
Gough Island	October/November 2005	18	Wilson et al. (2006)
Gough Island	September/October 2009	6	Bester and Reisinger (2010)
Punta Dungenes, Estrecho de Magallanes, Chile	October 2009	4	Acevedo et al. (2011)
Bahía Azopardo, Seno Almirantazgo, Chile	December 17, 2009	1	Acevedo et al. (2011)
Tristan da Cunha Islands	September 21, 2013	1	Bester et al. (2014)
Gough Island	September 21, 2013	1	Bester et al. (2014)
Playa Chungungo, Coquimbo, Chile	August 17, 2014	1	This study

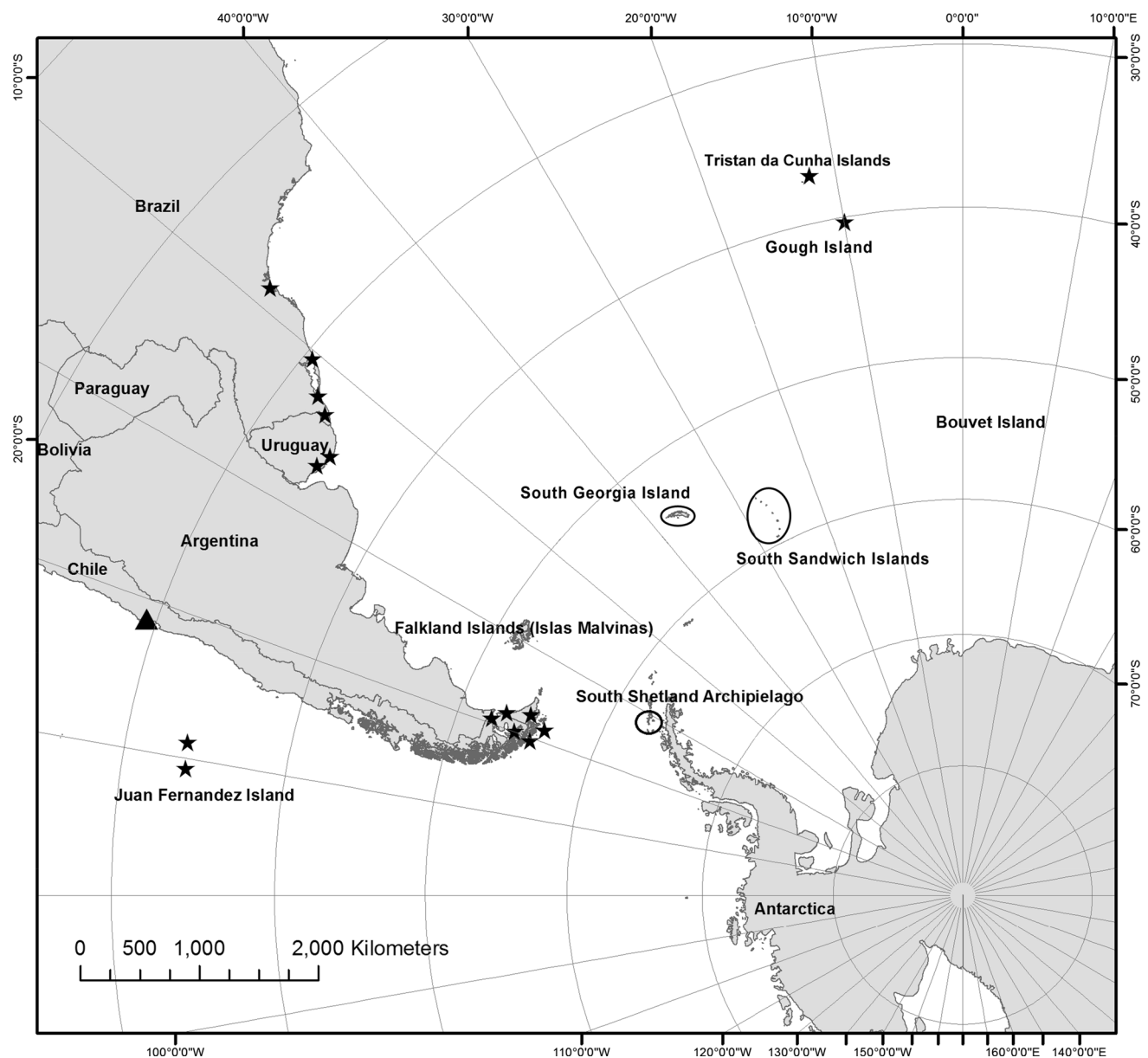


Fig. 2 Location of vagrant Antarctic fur seals sighted in the southern hemisphere. Details are given in Table 1. Stars previous records; triangle this study. Breeding sites are indicated in circles

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