A MASKED BOOBY SULA DACTYLATRA IN URUGUAY: SOUTHERNMOST RECORD IN THE SOUTHWEST ATLANTIC

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The Masked Booby *Sula dactylatra*, a species of pantropical distribution (Harrison 1983) is among the more pelagic species of the Sulidae family, which prefers to forage in deep waters (Enticott & Tipling 2002). In the southwest Atlantic, *S. dactylatra* is distributed all along the Brazilian coast (Sick 2001, Efe *et al.* 2006, Silva & de Campos 2006, Franz *et al.* 2008), where there are a few known breeding sites (Efe *et al.* 2006). The largest colony is on the Atol das Rocas (Rio Grande do Norte). Smaller colonies are found on Fernando de Noronha (Pernambuco), Abrolhos (Bahia), Trindade and Martin Vaz (Alves *et al.* 1997, Sick 2001, Efe *et al.* 2006).

Other species of Sulidae that occur in the southwest Atlantic include the Red-footed Booby *S. sula* and the Brown Booby *S. leucogaster*, both of which have breeding colonies in Brazil (Efe *et al.* 2006), and the Australasian Gannet *Morus serrator* and Cape Gannet *M. capensis*, both reported in Brazil (Bege & Pauli 1989 in Efe *et al.* 2006, Vooren 2004) and the latter also in Argentina (Bergkamp 1995, Ramírez 1996). The Brown Booby has also been recorded in Argentina (Haedo Rossi 1956) and Uruguay (Cuello 1975) and is the only species of Sulidae known to occur in Uruguay.

Recently, Efe et al. (2006) analyzed recapture data of Sula spp. ringed throughout two decades in the Brazilian colonies. It was observed that individuals of S. dactylatra that had been ringed in Abrolhos were recaptured as far as the states of Pernambuco, Ceará, (north of Abrolhos), São Paulo, Paraná, Santa Catarina (South of Abrolhos) and over the Rio Grande Plateau, more than 1000 km from the Brazilian coast. Other ringed birds from the same colony were recaptured in the states of São Paulo (Silva & de Campos 2006) and Rio Grande do Sul (Franz et al. 2008). The southernmost records of S. dactylatra in the southwest Atlantic belong to individuals ringed in Abrolhos and correspond to an immature specimen and a juvenile, found in Rio Grande do Sul on the coasts of Capão da Canoa (29°45'S, 50°00'W) and Mostardas (31°09'S, 50°49'W) respectively (Franz et al. 2008), and a four-month juvenile found dead at high sea (Efe et al. 2006). This specimen was a ringed bird retrieved on 31 December 1996 on a Uruguayan fishing vessel. Although Centro Nacional de Pesquisa para Conservação das Aves Silvestres (CEMAVE) initially recorded this specimen for Uruguay (M. Efe pers. comm.), it was in fact found in international waters over the Rio Grande Plateau (32°20'S, 36°00'W).

During the evening (19h35) of 10 March 2006, a specimen of the family Sulidae was observed from a Uruguayan fishing vessel

(Fig. 1). The bird was recorded in Uruguayan waters (36°14′S, –52°48′W) near the 2000-m isobath. It was flying around the vessel while a pelagic longline for Swordfish *Xiphias gladius* was being set. The sea surface temperature at the time was 25.7°C, and the direction of the wind was SSW at a force four on the Beaufort scale. At the time, 30 Spectacled Petrels *Procellaria conspicillata*, three Black-browed Albatrosses *Thalassarche melanophrys*, three Atlantic Yellow-nosed Albatrosses *T. chlororhynchos*, four Great Shearwater *Puffinus gravis*, four Wilson's Storm-Petrel *Oceanites oceanicus*, one wandering-type albatross *Diomedea* spp. and one shy-type albatross *Thalassarche* spp. were accompanying the ship.

Members of the Sulidae family, which comprises nine species, are often difficult to identify to species level at sea, particularly at the juvenile and immature stages. By contrast, adults can be identified by the coloring of their heads, bodies, wings and tail (Harrison 1983). The individual observed had a yellow bill. Its head, neck, body and upperwings were white, with black primaries, secondaries and rectrices. The white head with a broad black stripe formed by the secondaries along the trailing edge of the upperwings led to the identification of this specimen as an adult *S. dactylatra*.

The observation of *S. dactylatra* reported herein represents the first record for Uruguay and the southernmost record of this species in



Fig. 1. Ventral view of the Masked Booby *Sula dactylatra* observed from a fishing vessel on the Uruguayan slope.

the southwest Atlantic Ocean. The occurrence of an adult individual above the continental shelf (2000-m isobath) and approximately 2500 km from the nearest breeding colony (Abrolhos, in the northeast of Brazil), confirms the pelagic habits and wide range of this species (Harrison 1983, Efe *et al.* 2006). During the breeding season, adults of *S. dactylatra* tend to forage in shallow waters near their colonies, but they also tend to travel long distances to feed in more distant and deeper waters (Marchant & Higgins 1990).

The continental slope and adjacent deep waters are under the influence of the Subtropical Convergence, formed by the confluence of the cold Malvinas/Falklands Current and the warm Brazilian current (Seeliger *et al.* 1998). The time of the year and sea-surface temperature at the location of the observation suggest the presence of the Brazilian Current, which could be associated with the presence of this typically tropical species at this latitude. Warmer waters are reportedly associated with the distribution of *S. dactylatra* (Guillén-Herrera *et al.* 1995).

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REFERENCES

- ALVES, V.S., SOARES, A.B.A., DO COUTO, G.S., RIBEIRO, A.B.B. & EFE, M.A. 1997. Aves do Arquipélago dos Abrolhos, Bahia, Brasil. *Ararajuba* 5: 209–218.
- BEGE, L.A. & PAULI, B.T. 1989. As aves das Ilhas Moleques do Sul Santa Catarina aspectos da ecologia, etologia e anilhamento das aves marinhas. Florianópolis, Brazil: FATMA.

- BERGKAMP, P.Y. 1995. First record of the Cape Gannet *Sula capensis* from Argentina. *Bulletin of the British Ornithologists Club* 115: 71.
- CUELLO, J. 1975. Las aves del Uruguay (suplemento I). Comunicaciones Zoológicas del Museo de Historia Natural de Montevideo 139: 1–27.
- EFE, M.A., OLIVEIRA, A.C., KENAGAE, M.F., ALVES, V.S., ROSÁRIO, L.A. & NETO, P.S. 2006. Análise dos dados de recuperação de *Sula* spp. (Pelecaniformes, Sulidae) ocorridas no Brasil entre 1981 e 2000. *Ornithologia* 1: 125–133.
- ENTICOTT, J. & TIPLING, D. 2002. Photographic handbook: seabirds of the world. London, UK: New Holland Publishers.
- FRANZ, I., OTT, P.H., MACHADO, R. & FAUSTO, I.V. 2008. Primeiros registros de *Sula dactylatra* lesson, 1831 (Pelecaniformes: Sulidae) no estado do Rio Grande do Sul, Brasil. *Revista Brasileira de Ornitologia* 16: 178–180.
- GUILLÉN-HERRERA, J., PALACIOS, E., & AMADOR-SILVA, E.S. 1995. Further records of Masked Booby from Baja California. Western Birds 26: 200–202.
- HAEDO ROSSI, J.A. 1956. Notas ornitológicas I: presencia del piquero pardo en la Argentina. *Hornero* 10: 166–167.
- HARRISON, P. 1983. Seabirds, an identification guide. Boston, MA: Houghton Mifflin Company.
- RAMÍREZ, L.P. 1996. *Sula capensis* en el Canal Beagle, Argentina. *Hornero* 14: 67–68.
- MARCHANT, S. & HIGGINS, P.J. 1990. Handbook of Australian, New Zealand & Antarctic birds. Volume I. Ratites to ducks. Melbourne, Australia: Oxford University Press.
- SEELIGER, U., ODEBRECHT, C. & CASTELLO, J.P. 1998. Os ecossitemas costeiro e marinho do extremo Sul do Brasil. Rio Grande, Brazil: Ecoscientia.
- SICK, H. 2001. Ornitología Brasileira. Rio de Janeiro, Brazil: Editorial Nova Fronteira.
- SILVA, R.E. & DE CAMPOS, F.R. 2006. Registros do atobámascarado (*Sula dactylatra*) no estado de Sao Paulo, Brasil. *Revista Brasilera de Ornitologia* 14: 283–284.
- VOOREN, C.M. 2004. The first two records of *Sula capensis* in Brazil. *Ararajuba* 12: 76–77.