

Zoologia Caboverdiana, 6, 5–8 Available at <u>www.scvz.org</u> © 2017 Sociedade Caboverdiana de Zoologia

Nota breve | Short note

## New breeding sites of the red-billed tropicbird *Phaeton aethereus* and the brown booby *Sula leucogaster* on São Nicolau Island, Cabo Verde

Samir Martins<sup>1,\*</sup>, Rosiane Fortes<sup>2</sup> & Luís Palma<sup>3</sup>

<sup>1</sup>BIOS.CV, Sal Rei, Boa Vista Island, Cabo Verde

 <sup>2</sup> Uni-CV, Faculdade de Engenharias e Ciências do Mar, Universidade de Cabo Verde, Campus da Ribeira de Julião, CP 163, Mindelo, São Vicente, Cabo Verde
<sup>3</sup> CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, InBIO Laboratório Associado,

Universidade do Porto, Campus Agrário de Vairão, 448-661 Vairão, Portugal

\*Corresponding author e-mail: ilheuraso@gmail.com

Keywords: native birds, nesting sites, Macaronesian Islands, distribution

Red-billed tropicbirds (*Phaethon aethereus*) are distributed throughout the tropical waters of the Eastern Pacific, the Northwest Indian Ocean and the Atlantic Ocean; in the latter, the species is represented by *P. a. mesonauta* (Del Hoyo *et al.* 1992). The brown booby (*Sula leucogaster*) is the species with the largest distribution within the Sulidae (Patterson *et al.* 2011) with breeding sites across the Atlantic, Indian and Pacific oceans (Morris-Pocock *et al.* 2010).

In the Cabo Verde Archipelago, red-billed tropicbirds were known to breed mainly on the

Raso Islet, and the islands of Santiago, Brava and Boavista (Hazevoet 1995), while smaller colonies are known from Santo Antão (Hazevoet 2003), Sal (Hazevoet 1995), Fogo (Barone & Hering 2010), the Rombo Islet (S. Martins, unpublished data), and possibly on the Ilhéu dos Pássaros, off São Vicente (Hazevoet 2010). This last reference could not be confirmed subsequently (L. Palma, pers. obs.) but small colonies were recently observed at two locations on the coast of São Vicente (I. Rodrigues, pers. comm.). The brown booby is known to breed on Santiago, Raso, Brava and Boavista (Hazevoet 1995). On São Vicente, Sal, and Rombos they are probably now extinct, as we failed to find any colonies despite repeated searches between 2010 and 2013 (S. Martins, pers. obs.). Until now, red-billed tropicbirds and brown boobies had not been reported breeding on the island of São Nicolau, although a significant breeding colony is located on Raso, roughly 16 km away.

From middle January to late March 2016, the entire coast of São Nicolau Island was

thoroughly surveyed by car and on foot, and by boat where access by land was impractical. In early February we found a small colony of at least 14 red-billed tropicbirds and a second colony of at least 4 individuals about two kilometres to the East (Figs. 1 & 2). All birds seen were adults. Further to the West, we encountered a perched male brown booby at Baía da Chacina, and although we saw only one individual, the thick layers of guano indicated a possible breeding site (Fig. 1).



**Fig 1.** Map of the island of São Nicolau with records of: red-billed tropicbird colonies (black triangles; western colony: N 16° 33' 19.3"/W 24° 02' 59.9", eastern colony: N 16° 33' 04.7"/W 24° 01' 56.1"); putative brown booby colony (grey circle; N 16°34'13"/W 24°07'34"); possible brown booby colonies (open squares; northwest colony: N 16°39' 18.37"/W24°25'11.53", northeast colony: N 16° 35' 25"/W24° 02' 19").

We found two other possible brown booby colonies, as suggested by the abundant whitewash on the sea cliffs, respectively at the northwestern and northeastern ends of the island (Fig. 1). Yet, the distance from our position, the difficult access by land, and the adverse weather and rough sea conditions precluded a closer look. Further fieldwork is needed to confirm these breeding sites of brown boobies on São Nicolau.



Fig 2. Red-billed tropicbirds at a sea cliff, São Nicolau, 6th February 2016 (photo by S. Martins).

## ACKNOWLEDGEMENTS

We thank to Monte Gordo Natural Park (especially Ivani Duarte) and the Delegacy of the Ministry of Rural Development (especially Luciano Gomes) for logistic support. We also thank to Alex Vieira and Ildo Rodrigues for help in fieldwork, and to Isabel Rodrigues for sharing unpublished data. The observations were done during an Egyptian vulture status assessment funded by the Cabo Verde National Directorate for the Environment, and a BsC study on the osprey population funded by Cabeólica S.A., Head of Environment, Social and Administrative Department

## REFERENCES

- Barone, R. & Hering, J. (2010) Recent bird records from Fogo, Cape Verde Islands. *Bulletin of the African Bird Club*, 17, 71–78.
- Del Hoyo, J., Elliot & A. Sargatal, J. (Eds) (1992) Handbook of the Birds of the World, Volume 1 Ostrich to Ducks. Lynx Edicions, Barcelona, 696 pp.
- Hazevoet, C.J. (1995) The birds of the Cape Verde Islands. *British Ornithologists' Union Check-list*, 13, 1–192.
- Hazevoet, C.J. (2003) Fifth report on birds from the Cape Verde Islands, including records of 15 taxa new to the archipelago. *Arquivos do Museu Bocage Nova Série* 3, 503–528.

- Hazevoet, C.J. (2010) Sixth report on birds from the Cape Verde Islands, including records of 25 taxa new to the archipelago. *Zoologia Caboverdiana*, 1, 3–44.
- Morris-Pocock, J.A., Steeves, T.E. Estela, F.A. Anderson D.J. & Friesen, V.L. (2010) Comparative phylogeography of brown (*Sula leucogaster*) and red-footed boobies (*S. sula*): The

influence of physical barriers and habitat preference on gene flow in pelagic seabirds. *Molecular Phylogenetics and Evolution*, 54, 883–896.

Patterson, S.A., Morris-Pocock, J.A. & Friesen, V.L. (2011) A multilocus phylogeny of the Sulidae (Aves: Pelecaniformes). *Molecular Phylogenetics* and Evolution, 58, 181–191.

> Received 09 December 2016 Accepted 12 December 2016