

Notes on the Northern Royal Albatross *Diomedea sanfordi* in south Brazil

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RESUMO. Notas sobre o albatroz-real-do-norte *Diomedea sanfordi* no sul do Brasil. Em 12 de agosto de 1999, uma fêmea do albatroz-real-do-norte *Diomedea sanfordi* foi capturada por espinhel em águas oceânicas ao largo do Rio Grande do Sul, sul do Brasil. Este é o primeiro registro de captura incidental de *D. sanfordi* no sudoeste do Atlântico e indica que a espécie é afetada pela pesca com espinhéis na região.

PALAVRAS-CHAVE: Brasil, Rio Grande do Sul, *Diomedea sanfordi*, Diomededidae, Procellariiformes, captura incidental.
KEY WORDS: Brazil, Rio Grande do Sul, *Diomedea sanfordi*, Diomededidae, Procellariiformes, incidental capture.

The Northern Royal Albatross *Diomedea sanfordi* – taxonomy follows Robertson & Nunn (1998) – is a globally threatened (Endangered) species which breeds in New Zealand at the Chatham and Auckland islands, and Taiaroa Head (Otago Peninsula, South Island; Marchant and Higgins 1990, BirdLife International 2000). The species is Endangered because it is restricted to a small breeding range, and population declines due to very small breeding success as a result of a significant decrease in habitat quality (BirdLife International 2004).

In Brazil, there is only one published record of *D. sanfordi*, one adult male photographed on 2 July 2001 from a long-liner operating off Santa Catarina state at 28°47'S, 45°35'W (Olmos 2002). However, on 12 August 1999, one *D. sanfordi* was caught by tuna longline from the *R/V Atlântico Sul*, off Rio Grande do Sul (33°45.63'S, 50°54.20'W), south Brazil, on the continental slope over 1,200m depth, at surface temperature 17°C.

The specimen, without moulting remiges and rectrices, was a female in final adult plumage, *i.e.*, presenting solid black upperwings and white underwing with black tip and diagnostic black band at leading edge between carpal joint and tip (*e.g.*, Marchant & Higgins 1990), except for narrow black tips on the outer rectrices and on some feathers on the back. Measurements (mm) are: culmen 159, tarsus 119, middle toe with claw 152, wing 618, tail 198. Southern Royal Albatross *Diomedea epomophora* is larger, with females averaging (mm): culmen 170, tarsus 124, middle toe with claw 166.1, wing 673, tail 205.2 (Marchant & Higgins 1990).

The proventriculus was empty, but gizzard contents were two unidentified fish otoliths and four eyelenses, four squid beaks (three of *Histioteuthis* sp., Histioteuthidae), two plastic fragments (10.5 and 10.9 mm long), and a 2.8 mm polyethylene sphere. The proventriculus was infested by 27 roundworms (*Hysterothylacium* sp. and *Seuratia* sp., Nematoda),

and the gizzard by 10 *Seuratia* sp. Unidentified tape worms (Cestoda) were found in the intestines. The skull, wings, and legs were preserved, and deposited at the Seabird Collection of Fundação Universidade Federal do Rio Grande (FURG), Rio Grande, Brazil.

The 21,000 m-long longline had a 3.5 mm monofilament mainline, 7 m-long branch lines made of 1.8 mm monofilament and 3 m 1.35 mm steel tracers, with 60 g swivels and tuna hooks 70x33 mm with offset point, type Mustad 920SKR size 8/0, baited with squid. The longline carried 300 hooks, and was set from 16:35 to 18:15 h at ship's speed 7.4 knots and the same line setter speed, for fishing at shallow depth of 30 to 50 m. Two Black-browed Albatrosses *Thalassarche melanophris* and two White-chinned Petrels *Procellaria aequinoctialis* were also caught. *Diomedea sanfordi* and *D. epomophora* are known to forage mostly on shelf waters (Olmos 2002, Brooke 2004), so setting longlines in shallow waters makes those species susceptible to capture.

Apparently, this is the first record of incidental catch of *D. sanfordi* by tuna longline in the south-western Atlantic (*e.g.*, Vaske 1998, Olmos *et al.* 2000, Favero *et al.* 2003) and is evidence that this species is affected by the longline fishery in the area. The high catch rate of five birds on only 300 hooks reflects the vulnerability of the birds to (1) daytime setting of longline and (2) longline setting in shallow depths with mainline going out straight and taut, making the hooked branch-lines available to the birds.

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