

TOTALLY WHITE SOUTHERN GIANT-PETREL FROM TASMANIAN WATERS

The Southern Giant-Petrel *Macronectes giganteus* is a Southern Ocean wanderer, well known off the coast of south-eastern Australia (Blakers *et al.* 1984; Lashmar 1990). This species includes a white morph in which the plumage is completely white except for a small number of dark feathers. The proportion of this morph varies between breeding locations, and rarely exceeds 10 per cent (Shaughnessy 1971). There is a third colour morph of this species with a totally white plumage and pink feet which Conroy *et al.* (1975) refer to as a leucistic type. Here we report such a bird from south-eastern Australia. For convenience, we shall refer to leucistic birds as 'totally white' and the more common white morphs as 'black spotted'.

The bird was sighted from the CSIRO oceanographic research vessel *Franklin* on 29 October 1988 at 1500 h (local time) off the eastern coast of Tasmania. The ship's position was 41°55'S, 148°35'E, being 16 nautical miles (30 km) north-east of Cape Tourville. The bird was near the ship for 30 minutes and good views of it were obtained as it flew alongside the bridge. No dark feathers were visible. Its feet were pink and its irides were dark.

Totally white birds have been reported from Signy Island (61°S, 46°W), South Orkney Islands in low frequency: 0.3 per cent of chicks in 1969, compared with 10.5 per cent of chicks of the black-spotted form (Conroy *et al.* 1975). Pale-footed chicks have also been reported from Macquarie Island (54°S, 159°E) by Warham (1962), and these are presumably of the totally white form (Shaughnessy and Conroy 1977). In addition, a totally white Southern Giant-Petrel was sighted flying on the south-east coast of Ile de la Possession, Archipel Crozet on 3 November 1966 by J.-F. Voisin (pers. comm.), and another was sighted at Macquarie Island in 1970 by G. W. Johnstone (labelled transparency in photographic archives of Australian Antarctic Division).

We are not aware of a totally white Southern Giant-Petrel being sighted at sea previously. This is not surprising, because Shaughnessy and Conroy (1977) predicted that totally white birds were homozygous and dark spotted birds heterozygous. Because the frequency of black-spotted birds is low, the frequency of totally white birds is extremely low. For example, at a colony in which 10 per cent of Southern Giant-Petrels are black-spotted, the frequency of totally white birds is expected to be 0.26 per cent. Therefore, the likely source of the totally white bird seen off Tasmania is a colony with a relatively high frequency of black-spotted birds. Possible localities are Macquarie Island (7% of birds in colonies on the west coast and 15% on the east coast in 1968, Shaughnessy 1971), Signy Island (11% in 1969, Conroy *et al.* 1975) or other places with black-spotted birds (Shaughnessy 1971).

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