

## Observations on South Australian Sea Birds.

By D. L. Serventy.

In February and March of this year I spent nineteen days in South Australian waters during the cruise of the M.V. *Warreen*, the research vessel of the Fisheries Section of the Council for Scientific and Industrial Research. After our arrival from Melbourne on February 14 we cruised in St. Vincent and Spencer Gulfs and around the south-west, northern, and south-east shores of Kangaroo Island, making observations on the sea birds whenever opportunity offered. Local waters were left on March 6. Altogether twelve species of marine birds were met with, an annotated list of which follows.

*Puffinus gavia huttoni*.—Full notes on this representative of the Fluttering Petrel are given in the current number of *The Emu*, where I have shown that Mathews' original identity in 1912 of the South Australian White-breasted Petrels with *P. gavia huttoni*, of the Snares Is., New Zealand, must be upheld, and further, that *Puffinus leptorhynchus* described by Mathews in 1937, is a synonym of this form, which may warrant full specific status. On the present cruise the bird was seen at the mouth of Spencer Gulf (off the tip of Yorke Peninsula) and between Cape Willoughby and Tinline Point, D'Estree Bay. Two specimens collected four miles south of Willson's River were deposited in the South Australian Museum (B 21979 and B 21980). This species appears to be quite abundant in South Australian waters, previous published records being from Rapid Head, Hog Bay, Backstairs Passage, and near Cape Jervis. A breeding ground has not yet been located. Senior Fisheries Inspector A. E. Frinsdorf, who accompanied us during the cruise, told me he has seen large concentrations of these Petrels near the Pages, the North and South Casuarina Islands, and also the Pelorus Rock.

*Puffinus tenuirostris*, Short-tailed Shearwater.—Parties of Mutton-birds and odd individuals were seen throughout the cruise. We anchored one evening off Althorpe Is. and watched the birds flying in. They were in moderate numbers, but not of the strength one sees in the Bass Strait islands, Babel Is. in particular.

*Puffinus carneipes*, Fleshy-footed Shearwater.—I was not a little astonished to find out how abundant this essentially Western Australian species really was. The birds were recognised by their pale beaks off Cape d'Estaing (an appreciable concentration of them), large numbers between Cape Willoughby and Tinline Point, and a fair flock at Cape Borda (parties of *P.*

*tenuirostris* were in the same area). Following are particulars of four birds shot out of a flock in D'Estree Bay, Kangaroo Is., two of which have been deposited in the South Australian Museum (Nos. 3 and 4):—

No.	Sex.	Weight.	Length.	Wing.	Culmen.	Tarsus.	Tail.
1	♂	1 lb. 8 oz.	426	312	43.0	54	104
2	♀	1 lb. 6½ oz.	430	315	42.8	52	112
3	♀	1 lb. 11 oz.	440	307	42.8	50	112
4	♀	1 lb. 5½ oz.	437	317	40.0	53	105

Beaks of small cuttle-fish were present in the stomachs, and the first male (the only one I examined personally) had very small gonads, greenish in colour. This species has been very infrequently recorded in South Australian waters in the past, and Professor Wood Jones expresses it as "a remarkable fact that two of these unfamiliar shearwaters should be found on islands in Spencer Gulf in the entire absence of any remains of *P. tenuirostris*" (Reports of McCoy Society, Sir Joseph Banks Islands, *Proc. Roy. Soc. Vict.*, vol. 50, pt. ii, 1938, p. 402). It is clear that special care is needed in the identification of Mutton-birds at sea in these waters, and that in the past any dark shearwater seen has been too freely accepted as being *P. tenuirostris*.

[*Pelecanoides urinatrix*, Diving Petrel.—None was seen in South Australian waters, but when the vessel was passing close to Lady Julia Percy Island, in Victoria, we passed through a dispersed party of these birds.]

*Diomedea melanophris*, Black-browed Albatross.—Albatrosses were scarce during the cruise. On the inward voyage the sea was calm and we saw only one bird of this species, off Guichen Bay; it had very little white on the under-wing and had a dark bill. On the voyage back, in the teeth of a stiff south-easterly gale, Black-browed Albatrosses followed the ship, as many as four at a time. Some of these birds had orange bills.

? *Diomedea cauta*, White-capped Albatross.—Once at Cape Borda I saw an Albatross which did not approach the boat. With the glasses I made out its black mantle, and the wings showed black tips underneath, a large amount of white, and no black borders. I feel reasonably sure that it was this species, but a better view is necessary before one can put it forward as a record for this part of South Australia.

*Phalacrocorax fuscescens*, Black-faced Cormorant.—Numbers were seen in the region of the Sir Joseph Banks Group. Several were perched on the rocks at Hog Bay and some also near Kingscote.

*Phalacrocorax varius*, Pied Cormorant.—I did not recognise this species out at sea, and as a matter of fact noted it only on the lower Torrens.

*Phalacrocorax melanoleucus*, Little Pied Cormorant.—A few specimens were seen on the Torrens.

*Sula serrator*, Australian Gannet.—A small flock was seen at Cape Borda, and occasional birds were encountered at Cape de Couedic, along the north shore of Kangaroo Is. and at Althorpe Is. A bird shot at Cape Borda was a male, with small gonads. Particulars were as follows:—Weight, 5 lb. 0 oz.; length, 884 mm.; wing, 447; culmen, 92; tail, 211; tarsus, 55; facial skin grey-blue and the inside of the mouth and pharynx was of the same colour; feet grey with a yellowish line along the crest of each toe, converging and uniting proximally on the tarsus; head brownish-yellow, not bright enough to be designated "straw-yellow" as given in W. B. Alexander's *Birds of the Ocean*. The bird was just completing its moult, the secondaries and all but two of the primaries were fresh; the outermost primary was worn and the one next to it and its upper covert had just emerged from their sheaths; both wings were in similar condition. The tail feathers were new, and the left central one had just emerged from its sheath. A small Gannet rookery was noted on Lawrence Rock, off Danger Point, Portland Bay, in Victoria, as the vessel passed.. This is a flat-topped basalt rock like Julia Percy Island, and is white with guano. Gannets were constantly alighting on it, but there could not have been many nests. So far as I am aware no South Australian nesting place has been reported.

*Sterna bergii*, Crested Tern.—Common everywhere, and flocks were seen feeding on small pelagic fishes at Cape Catastrophe, Cape Borda, and Western River. One was shot at Cape Borda. It was a male, with small gonads; weight, 12 oz.; wing, 335 mm.; culmen, 66; tarsus, 28; palate and tongue yellow like the beak, but further back the mouth was flesh-colour.

*Larus novae-hollandiae*, Silver Gull.—An ubiquitous bird, and on the return voyage during the gale birds were frequently following the ship. Off Cape Borda on one occasion we passed through rafts of "krill,"\* which coloured the water red.—Many Silver Gulls were feeding on it, and curiously there were no other birds present at the time, though I have frequently found this small crustacean in mutton-birds' stomachs.

*Gabianus pacificus*, Pacific Gull.—The only ones noted were in the Port Lincoln area, with the exception of one immature

\* *Nyctiphantes australis*.

bird at the entrance to Spencer Gulf, off Yorke Peninsula. At Port Lincoln were several adult birds, but more in immature plumage.

*Stercorarius parasiticus*, Arctic Skua.—These birds were quite common on the run along the south coast to Backstairs Passage and throughout St. Vincent Gulf, four or five birds sometimes accompanying the ship and harrying the attendant Silver Gulls. They were less common along the northern shore of Kangaroo Is., and the only one seen in Spencer Gulf was out from Wallaroo. Both light and dark phases occurred, the former being more abundant, but on one occasion, between Port Adelaide and Kangaroo Is., a party of five following the ship were all of the dark phase. One specimen collected (light phase) about 15 miles S.W. of Robe was a female, with a small ovary; length, 462 mm.; wing, 322; culmen, 31.5; tail, 171; the sharp-pointed central feathers projecting 46 mm. beyond the rest of the tail; tarsus, 52; feet, jet black; beak, dark olive-grey with nail black; iris, brown.

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