

Shearwaters Breeding on Montague Island, New South Wales

By F. N. ROBINSON*

The discovery of a breeding colony of Short-tailed Shearwaters (*Puffinus tenuirostris*) by Davies (1959) on the Tollgates Islands indicated that the breeding range of this bird may extend to other islands off the N.S.W. coast where it has not hitherto been recorded as a regular breeder. This was borne out by the subsequent discovery of breeding colonies on Broughton Island (Hindwood and D'Ombrain 1960) and the Five Islands (Lane 1961). I now report the breeding of the species on its fourth island station in New South Wales — Montague Island.

Montague Island is some five miles from Narooma on the coast of N.S.W. The island is divided into two sections by a deep rift, which is passable on foot in any but the roughest weather.

Basset Hull (1912) found a breeding colony of Wedge-tailed Shearwaters (*Puffinus pacificus*) on the island but was unsuccessful in his search for *P. tenuirostris*.

On February 6, 1960, I visited the island in order to obtain some tape recordings of *P. pacificus* and to discover whether *P. tenuirostris* was also breeding there.

One of the lighthouse keepers on the island, Mr. J. Carmody, who was aware that there were two species of shearwaters breeding on the island, pointed out three rookeries, two on the northern section, and one on the north end of the southern section of the island. He added that both species had been nesting on the island ever since he had been there, a period of about three years.

The rookery on the southern section was examined first and young of both *P. pacificus* and *P. tenuirostris* were found. Three burrows containing young of *P. tenuirostris* were marked, and when the adult birds arrived in the evening they were identified by their calls. One of these calls was recorded and a copy of the recording sent to Dr. D. L. Serventy, who confirmed the identification. One adult breeding specimen of *P. tenuirostris* was caught and examined. The culmen measured 32.1 mm, the tail was short and rounded, and the legs were purple and dark, in contrast to the long wedge-shaped tail and light flesh-coloured legs of *P. pacificus*. The difference in the colour of the legs was also very apparent in the young birds examined.

At about 2 a.m. on February 7 large numbers of non-breeding birds of both species began to arrive on the rookery and commenced calling on the surface. Recordings of these calls were also made.

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The two rookeries on the northern section of the island could not be thoroughly examined in the time available, but it was evident from the number of birds calling that they are quite extensive.

On March 29, 1960, I returned to the island and banded 20 young of *P. pacificus* and 50 young of *P. tenuirostris*. Culmen measurements of six individuals were:—

<i>P. pacificus</i>	<i>P. tenuirostris</i>
36.2 mm	32.2 mm
37.5 mm	30.9 mm
35.5 mm	33.7 mm

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The Recent Expansion of the Roseate Tern into South-western Australia

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Until recently there was only one record of the Roseate Tern (*Sterna dougallii*) in Western Australia south of the Houtman Abrolhos, viz. a specimen collected in July 1939 at Scarborough, a seaside suburb of Perth.

In late autumn 1958 Storr witnessed a small influx of Roseate Terns into the sheltered seas off Fremantle. On May 24 and 27 at least two were fishing in Thompson Bay on the east coast of Rottnest Island. On June 5 two more were observed on and near the naval jetty at Rockingham, and a further ten were seen fishing in Careening Bay on the east coast of Garden Island. All 14 birds were in nuptial plumage, which, in view of the season, was puzzling, since no autumn-breeding population of Roseate Terns had been recorded in this State south of latitude 20°.

In the following year, on May 3, we briefly watched a Roseate Tern in nuptial plumage flying past Carnac Island, four miles south-west of Fremantle. Meanwhile, on February 28, Ford had observed at Wedge Island (90 miles north of Fremantle) ca. 70 Roseate Terns in full breeding plumage. They were resting on the sandy bar that connects the islet with the nearby mainland. There was no sign of breeding.