

Nesting of the Short-tailed Shearwater on Brush Island, and other Coastal Islands of N.S.W.

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The breeding grounds of the wide-ranging (in the Pacific Ocean) Short-tailed Shearwater (*Puffinus tenuirostris*) were, at one time, thought to be restricted to the islands (and some headlands) of Tasmania and Bass Strait, and from Gabo Island (north-east Victoria) to the Nuyts Archipelago in South Australia.

In 1958 the species was noted breeding on the Tollgates Islands (Davies 1959); in 1959 on Broughton Island (Hindwood and D'Ombraïn 1960); in January 1960, and in February of the same year, on the Five Islands (Lane 1961) and Montagu Island (Robinson 1962), respectively. All four islands, or groups of islands, are in the coastal waters of New South Wales.

Many years ago, in 1915, A. F. Basset Hull (1916) recorded, apart from nesting Wedge-tailed Shearwaters (*P. pacificus*), the presence of several dead Short-tailed Shearwaters and a fresh egg of that species "just above the thick scrub, on a patch of sand" on Brush Island, 120 miles south of Sydney. Visits by ornithologists to the island since then have been few; C. P. Humphries was there on September 23, 1953, and, with a small party, I landed on the island on November 8 of the same year (Humphries and Lane 1954). Both those trips were too early for nesting shearwaters, though we did locate one *P. pacificus* in a burrow. Many of the burrows were, at that time, being cleaned out in preparation for egg-laying.

In view of the known nesting of the Short-tailed Shearwater on four other island groups in coastal New South Wales, it was decided to make a thorough search of Brush Island. A trip was planned for early December 1961 with the intention of spending three days on the island. However, gale-force winds, torrential rain and rough seas delayed the start for two days. The party, comprising F. K. Hersey (Field Officer, Fauna Protection Panel), C. P. Humphries, and the author, left Ulladulla at 5 a.m. on December 3 in a fishing boat for the 15-mile journey south, and some two hours later a landing was made in calm weather.

Species noted at sea, on either the outward or return trip, were: Gannets (*Sula serrator*); Fluttering Shearwaters (*Puffinus gavia*), a few Wedge-tailed Shearwaters, and one Sooty Shearwater (*P. griseus*); Silver Gulls (*Larus novae-hollandiae*), Crested Terns (*Sterna bergii*), Little Penguins (*Eudyptula minor*), and some skuas (*Stercorarius* sp.).

Little Penguins were nesting on most parts of the island, including the higher ridges which rise to about 140 feet above sea-level. Only a few of their burrows were checked, reveal-

ing breeding in all stages from fresh eggs to fully-grown young. Most of the ten hours spent on the island were occupied in searching for nesting shearwaters.

Many of the shearwaters' burrows examined extended well beyond reach; in such cases every effort was made to find out if they were occupied. All shearwaters caught were ringed with C.S.I.R.O. bands. About 150 burrows were investigated and we were able to capture 38 birds. Both Wedge-tailed and Short-tailed Shearwaters were found in proximity. The first ten birds banded were *tenuirostris*; six *pacificus* were found in nearby burrows.

The results of our investigations are summarized below:

Short-tailed Shearwater

- 16 burrows each containing a bird brooding an egg.
- 8 burrows each occupied by an adult, but no eggs could be located because of the length of the burrows.
- 1 burrow in which two adults were sheltering; no egg was present.

Wedge-tailed Shearwater

- 8 burrows each containing a bird brooding an egg.
- 3 burrows each occupied by an adult, but no eggs could be located because of the length of the burrows.
- 1 burrow in which an adult bird was brooding an egg measuring 73.3 mm x 46.5 mm, and which obviously belonged to a Short-tailed Shearwater. An average egg of the Wedge-tailed measures about 63 mm x 42 mm.

The finding of the less robust (? and less aggressive) *pacificus* brooding the egg of a *tenuirostris* indicates that there may be strong competition for burrows, and that the more dominant of the two species may eventually oust the weaker one from the island; also, the possibility of one species raising the chick of another, related, species to maturity is a matter of biological interest.

Apart from Little Penguins and the two species of shearwaters discussed, the only other birds found breeding on the island were a pair of Sooty Oystercatchers (*Haematopus unicolor*), whose nest and two eggs were within a few feet of where the species was found nesting in 1953; a pair of Welcome Swallows (*Hirundo neoxena*) had a nest with young in an old rusted boiler from the wreck of the *Northern Firth*.

The Short-tailed Shearwater is now known to breed on the following islands in the coastal waters of New South Wales: Broughton Island, 110 miles north of Sydney; the Five Islands, 50 miles south of Sydney; Brush Island, 128 miles south of Sydney; the Tollgates, 141 miles south of Sydney, and Montagu Island, 180 miles south of Sydney.

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REFERENCES

- Davies, S. J. J. F., 1959. A note on the shearwaters breeding on the Tollgates Islands, N.S.W. *Emu*, 59: 287-88.
- Hindwood, K. A., and D'Ombra, A. F., 1960. Breeding of the Short-tailed Shearwater (*Puffinus tenuirostris*) and other seabirds on Broughton Island, N.S.W. *Emu*, 60: 147-54.
- Hull, A. F. Basset, 1916. Avifauna of New South Wales islands (part 3). *Emu*, 15: 207-16.
- Humphries, C. P., and Lane, S. G., 1954. A visit to Brush Island. *Emu*, 54: 131-34.
- Lane, S. G., 1961. Nesting of the Short-tailed Shearwater on the Five Islands, N.S.W. *Emu*, 61: 65-66.
- Robinson, F. N., 1962. Shearwaters nesting on Montagu Island, N.S.W. *Emu*, 61: 292-93.

Cattle Egret in south-west Victoria.—The spread of the Cattle Egret (*Ardeola ibis*) in many parts of the world in recent years is well known, but its occurrence about five miles east of Dunkeld in south-western Victoria adds a new district to its conquest.

I was informed that a strange white bird, about the size and shape of a "blue crane", had been feeding for the past two weeks with a flock of rams belonging to Mr. Peter Armytage, about five miles on the Glenthompson side of Dunkeld. I went to see the bird the next day, May 18, 1962, and found it, as described, feeding in the middle of a flock of about 20 rams.

It was in winter, or possibly immature, plumage, pure white except for a small patch of buff on the forehead in front of a small bunch of feathers that looked almost like a crest. The bill was bright yellow, shorter and stronger than in the other Australian species of egrets. At first sight the legs appeared grey, but in certain lights had a definite olive tinge in them. The soles of the feet were seen to be yellowish when the bird flew away from the observer.

As it allowed approach to within 20 yards, and when disturbed flew only a few yards to the front of the rams, observation was very easy. It appeared to be a good deal smaller than the White-faced Heron (*Ardea novaehollandiae*) with which it had been compared, but possibly this was due to the fact that the legs were noticeably shorter. Its walk was unlike that of other egrets in that it took very high steps, with an exaggerated fore-and-aft movement of the head during each step. It was present for a few days after I saw it, making a total residence in the one place of about three weeks. The grass in the ram paddock was longer than in many other paddocks around the district, which possibly accounts for its prolonged stay in the one spot.—CLAUDE N. AUSTIN, Coleraine, Vic., 31/5/62.