

LORD HOWE EXPEDITION, 1962

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Lord Howe Island, is situated in the south-west Pacific Ocean, some 300 miles east of Port Macquarie and approximately 450 miles north-east of Sydney. The island is ideally situated in the 'tongue' of warm water extending down between the land masses of New Zealand and Australia. Its coral reef supports a comparatively rich marine fauna and in turn an enormous population of breeding sea-birds. The island, being an isolated speck in the Pacific, boasts a large number of endemic plant and animal forms. The two mountains, Mt. Gower, 2,840 feet and Mt. Lidgbird, 2,500 feet at the southern end are almost continually cloud-covered and their plateaux support a fine stand of rain-forest vegetation. The island is only seven miles in length with an average width of one mile. The large number of bird forms, some 116 species recorded (1,2,3), must surely be due to its geographical position favouring migrants and stragglers.

Following a visit to the island in August/September, 1956 by the writer, plans were made for a survey of the sea-bird populations including an experimental banding programme. This work was carried out in November/December, 1959, by Laurie O'Connor and myself. The information gathered and the recoveries resulting from the 1,254 sea-birds banded on that trip was impressive enough for me to consider making a third and more ambitious trip.

Accordingly, on November 17, 1962, a party of five arrived at Lord Howe. The party comprised Mr. Cliff Beauglehole (botanist), Mrs. Hilda Beauglehole (botanist's assistant), Miss Dorothy Moroney (bander), Mr. Gerry Setford (photographer) and myself (leader, bander and recorder).

A formidable two weeks programme lay ahead. As well as the 5,000 birds we hoped to band, we proposed to make a comprehensive collection of plants (including the sea-weeds!), investigate the North Bay Caves for mammal and bird bones, walk every beach on the island searching for dead sea-birds, collect as many sea-bird parasites as possible, watch migrant water flocks and generally keep an eagle eye out for rarities, make a count of the nesting population of Masked Gannets (*Sula dactylatra*), and make observations on the behaviour of the Grey Noddy (*Procelsterna cerulea*).

By tireless enthusiasm and sheer determination we managed most of these self-imposed tasks, as well as a few others that cropped up. We were indeed very fortunate to make the acquaintance of Miss Julie Booth, an Honary Associate of the Australian

Museum (Marine Life). Julie was of great assistance to us and spent many hours helping with the bird banding.

From previous experience and results it was thought best to concentrate on three species, viz.- Fleshy-footed Shearwater (Puffinus carneipes), Sooty Tern (Sterna fuscata) and Masked Gannet.

The main carneipes colony is on the eastern side of the main island, and extends for over a mile and up to three hundred yards in from the shore. Owing to the length of the nesting burrows (up to 15 feet long), banding of incubating birds would not be an easy task. We thus had to resort to the banding of birds captured on the surface of the rookery at night. This, while a little less time consuming, meant that if the breeding cycle of carneipes is similar to that of P. tenuirostris (4) and everything so far points to this being so (5, 6) then a good percentage of the birds we banded were non-breeding birds (sexually immature). A total of eight nights was spent in chasing carneipes, and a total of 2,297 birds of this species were banded.

Some thirty birds were retrapped that had been banded in the same area two and three years previously by Laurie O'Connor, Dorothy Moroney and myself. Information from five recoveries, listed hereunder, indicates that during the breeding season some at least of the population feed off the northern New South Wales and southern Queensland coasts.

160-07894: Banded as adult (captured on rookery surface) by J.L.McKean at Lord Howe Island on 24.11.59. Recovered at sea, 7 miles E.N.E. of Ballina, N.S.W. on 18.10.60.

160-08761: Banded as adult (captured on rookery surface) by J.L.McKean at Lord Howe Island on 26.11.59. Recovered at sea, 35 miles N.E. of Southport, Q'ld. on 15.10.60.

160-09206: Banded as adult (captured on rookery surface) by J.L.McKean at Lord Howe Island on 11.12.59. Recovered at sea, 15 miles S.E. of Coff's Harbour, N.S.W. on 27.10.60.

160-19453: Banded as adult (captured on rookery surface) by D.Moroney at Lord Howe Island on 17.11.60. Recovered at sea, 15 miles off Evans Head, N.S.W. - Finder's letter dated 5.12.60.

160-49630: Banded as adult (captured on rookery surface) by D.Moroney at Lord Howe Island on 17.11.62. Recovered at sea, off Yamba, N.S.W. on 24.11.62.

Sight observations (7,8,9) confirm the presence of large numbers of carneipes in coastal New South Wales waters during

the Lord Howe Island and New Zealand carneipes' breeding season. The high rate of actual recoveries for this species, 0.72%, as compared to tenuirostris, 0.04%, (10) is possibly due to differences in feeding habits. P. carneipes is well known to fishermen in northern New South Wales for its continual attempts to seize bait and small fish off fishing lines. David Dent and I were easily able to catch a bird off Woolli, N.S.W. by using a baited blunted hook on a handline. We could have caught many more if we had had the time and would recommend the exercise to anyone in this area as a banding project with a high potential for results. P. griseus, which from New Zealand and Australian banding data has a considerably higher 'actual' recovery rate than P. tenuirostris, has also been recovered per medium of fishing line (11).

Two Lord Howe Island carneipes have been recovered in the Northern Hemisphere.

160-09078: Banded as adult (captured on rookery surface) by J.L. McKean at Lord Howe Island on 7.12.59. Recovered Putjatin Island, about 50 kilometres S.E. of Vladivostock, U.S.S.R. on 27.7.61.

160-08631: Banded as adult (captured on rookery surface) by L.W. O'Connor at Lord Howe Island on 24.11.59. Recovered at sea, off Toimisaki, Kushima-shi, "Southernmost of Kyushu" on 18.5.62.

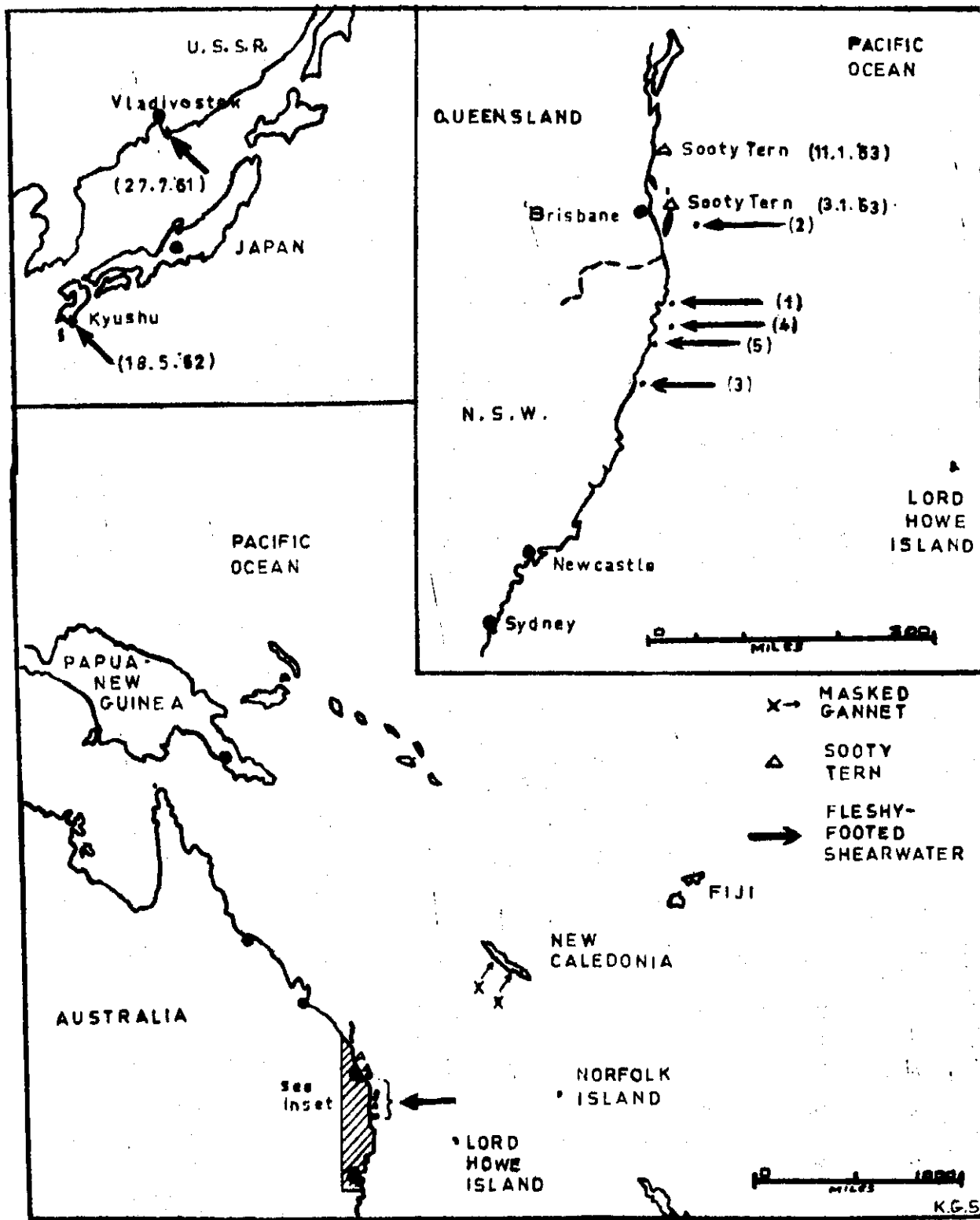
These recoveries support the general theory of a circum-Pacific migration in the Lord Howe carneipes population. If the recovery rate continues, our 1962 banding should result in a few more recoveries along the migration route.

The nesting population of Masked Gannets had markedly increased since the 1959 census. For example, the populations at the two areas concentrated on for banding purposes in 1959 and 1962 are given below.

<u>Colony</u>	<u>Breeding Pairs</u>	
	<u>Late November, 1959</u>	<u>Late November, 1962</u>
Roach Islet	approx. 200	310
Mutton-Bird Point	<u>30</u>	<u>46</u>
Total	230	356

It is not clear whether these figures represent an actual increase in nesting population or a shift in the peak of breed-

MAP SHOWING RECOVERIES OF BIRDS BANDED AT LORD HOWE IS.



ing. If only we had banded a good sample of adults in 1959!

At Mutton-Bird Point, we were able to band 41 nestlings and 1 adult Gannet. On Roach Islet we were able to band 216 nestlings and 37 adult Gannets to bring the total to 295 Masked Gannets banded by the expedition.

Two interesting long-distance recoveries from birds of this species banded in 1959 are listed below.

130-16432: Banded as nestling by J.L.McKean at Mutton-Bird Point, Lord Howe Island, on 27.11.59. Recovered at sea, off Lord Howe Island, on 5.5.60, alive and healthy, bird released with band. Recovered at Poya, New Caledonia on 5.6.60.

130-16452: Banded as nestling by J.L.McKean at Roach Islet, Lord Howe Island on 4.12.59. Recovered at Moindou, west coast of New Caledonia about 1.2.61.

Other recoveries were made at sea off Lord Howe Island prior to May, 1960, of Gannets banded as nestlings in November and December, 1959. The lack of recoveries on Lord Howe Island after May, 1960, and the above recoveries of first and second year birds in New Caledonia suggest that Lord Howe juvenile Masked Gannets may follow a pattern similar to the juvenile birds of the Cape, Northern, Australian and New Zealand populations of the Gannet Sula bassana (12,13,14,15), viz., leave their natal areas and move long distances into areas with a warmer sea-temperature, staying there for from two to four years, after which they usually return to their home colony. It seems likely from the fairly high recovery rate that further recoveries will result from our 1962 banding which may confirm or reject the above supposition.

Countless thousands of Sooty Terns nest on the outlying islands and in lesser numbers on cliff ledges on the main island. K.A.Hindwood (1) has estimated the nesting population on Roach Islet at 100,000 breeding pairs. It was on Roach Islet that practically all our banding of this species was done. We spent, in all, a total of four days on the Islet and banded a total of 4,217 birds (4,096 nestlings, 121 breeding adults).

Two recoveries have already resulted.

060-45197: Banded as nestling by J.L.McKean at Roach Islet, Lord Howe Island on 28.11.62. Recovered at Amity Point, Stradbroke Island, Q'ld. on 3.1.63.

060-41599: Banded as nestling by D.Moroney at Roach Islet, Lord Howe Island on 28.11.62. Recovered at Maroochydore, Q'ld. on 11.1.63.

It now remains to be seen if Queensland is the regular wintering area for Lord Howe Island Sooty Terns or merely lies on the migration route.

Of the other sea-birds, we banded 9 Common Noddies (Anous stolidus), 1 Grey Noddy, 3 Wedge-tailed Shearwaters (P.pacificus) and 6 Red-tailed Tropic-birds (Phaethon rubricaudus) to give a grand total of 6,810 birds banded in two weeks. An interesting retrap was made of a Red-tailed Tropic-bird (090-35728), incubating an egg under the same bush on New Gulch Cliffs, where banded as a breeding adult, three seasons previously. This indicated that some individuals may return to the same nesting site each season as had been found with Red-billed Tropic-birds (P.aetherus) and White-tailed Tropic-birds (P.lepturus) on Ascension Island (17).

A further expedition is being planned for the current year, but this time in September, to work mainly on the Brown-headed Petrel (Pterodroma melanopus), which breeds in the winter months on Mt. Gower and Mt. Lidgbird. (See notice on p.110).

Acknowledgements.

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TIP FOR COLD WEATHER.

Small birds such as Finches sometimes suffer from shock on being netted and if netted early on a cold morning, death can result.

The answer is that if mist-netting is done early on winter mornings, visits to the nets must be much more frequent than is necessary in the warmer months.

A good bander will find that his mist-netting casualties from this and other causes are much less than the 1 per 100 spoken of in overseas publications. A record should be kept of any casualties including such things as date, time, place, weather conditions and cause of death if apparent.