

SEABIRDS FOUND DEAD IN NEW ZEALAND IN 1969

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ABSTRACT

During 1969, 1,665 miles of coast were patrolled by 99 members of O.S.N.Z. and 2,534 dead seabirds were found. No species was exceptionally abundant but there was a high proportion of albatrosses relative to other years. The rarest specimens were an Oriental Cuckoo *Cuculus saturatus horsfieldi* and an Arctic Tern *Sterna paradisaea*.

This paper reports on the results obtained in the O.S.N.Z.'s Beach Patrol Scheme during 1969. The coastline of New Zealand has been divided into 15 zones (see Figure 1 in Imber and Boeson 1969) and cards were received from 12 of these. During the year 99 members or friends were recorded as having taken part in patrols; 316 beach patrol cards and 58 specimen record cards have been filed. There was a high level of patrolling on all western coasts of the North Island, which are consistently rewarding. However, Auckland East and Bay of Plenty, which usually give moderate returns, were almost ignored. There was very little patrolling on South Island coasts which mostly give average to poor results but the level of patrolling there has been much higher in the past.

RESULTS AND DISCUSSION

Western coasts of the North Island were patrolled most regularly throughout the year and yielded the greatest numbers of birds (Table 1). Excluding zones where less than 10 miles were covered, Wellington West had the highest density of specimens. The overall density in terms of birds per mile travelled (1.5) is the lowest recorded since regular reports began in 1960 (but 1965-7 results are not yet available). Miles travelled are the total distances patrolled; miles covered are the lengths of coast inspected monthly. Thus if a mile of beach is patrolled three times in one month, 3 miles have been travelled but only 1 mile covered. The monthly mortality pattern exhibited in Table 1 is a typical one, low initially but increasing towards the end of the year.

Seabirds found in few numbers during the year are listed in Table 2. Several Blue Petrels *Halobaena caerulea* were found on western beaches in October, as also happened in 1968. Rarer specimens were the Wilson's Storm-petrel *Oceanites oceanicus* and the Arctic Tern *Sterna paradisaea*, both from Southland. It was also very pleasing to have 4 specimens of the relatively rare Black Petrel *Procellaria parkinsoni* reported. A dead petrel found on a beach normally indicates many thousands alive at sea, particularly with the highly pelagic *Pterodroma* and *Procellaria* species. For instance, the Grey-faced Petrel *Pterodroma macroptera* populations breeding around the North Island north of 39°S probably number a few millions, yet note the few found dead in 1969 (Table 2) or in any previous year (1960-2, 1961-5, 1962-6, 1963-19, 1964-7, 1968-3).

However, the rarest bird found was not a seabird but a migratory land bird: an Oriental Cuckoo *Cuculus saturatus horsfieldi*. This was found on Muriwai beach, Auckland West on 21 December 1969 by the Auckland party, led by Mrs. S. M. Reed, which regularly patrols that coast.

The commoner species found in 1969 are tabulated according to coast (Table 3) and month (Table 4) of discovery. As is often the case, the Fairy Prion *Pachyptila turtur* was the most abundant. Of the three prion species that occur in winter and spring, the Narrow-billed *Pachyptila belcheri* was found most.

But the albatrosses *Diomedea* stand out as having been especially abundant in 1969. Of previous years for which data are available only 1968 recorded more albatrosses and that was because of the April cyclone (Kinsky 1968). For 1960-1964 and 1968 (excluding the cyclone mortality), albatrosses numbered 16 to 67 per year and represented 0.9 to 1.7 percent (mean 1.25) of all seabirds found. In 1969 the 175 albatrosses formed 6.9 percent of all seabirds recorded. Most mortality occurred in June on Wellington West and Auckland West coasts. The 93 seabirds collected from 61 miles of Wellington West coast on 21 June included 31 albatrosses. No species appears to have been more abundant than any other relative to numbers recorded in previous years. One Grey-headed Albatross *D. chrysostoma* banded on Bird Island, South Georgia, in 1963 was recovered on Wellington South coast in August (G. Woodward, pers. comm.). It is probable that others found about that time came from the same region.

Among the shearwaters there was again, but to a lesser extent than in 1968, a relatively high number of Short-tailed *P. tenuirostris*. Fluttering Shearwaters *P. gavia* were more abundant than in the previous year; most of them were found in winter when Hutton's Shearwater *P. huttoni* was absent.

In addition to seabirds, 76 land or freshwater birds were found: 7 Black Swans, 3 Grey Duck, 6 Mallard, 6 Harriers, 4 Pheasants, 1 Pukeko, 2 S.I. Pied Oystercatchers, 1 Banded Dotterel, 1 Bar-tailed Godwit, 2 N.Z. Pigeons, 5 Rock Pigeons, 1 Oriental Cuckoo, 1 Morepork, 3 N.Z. Kingfishers, 1 Skylark, 2 Song Thrushes, 3 Blackbirds, 1 Tui, 2 Starlings, 1 Black-backed Magpie and 23 White-backed Magpies.

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TABLE 1 — Numbers of dead seabirds recorded and miles patrolled on each coast in 1969*

| COAST | CODE | | MONTH | | | | | | | | | | | | TOTALS | BIRDS/MI/MO | |
|------------------------------------|------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-------------|-----|
| | | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | | | |
| Auckland West | AW | Miles | 11 | 4 | 26 | 53 | 108 | 81 | 50 | 27 | 28 | 28 | 27 | 31 | 474 | | |
| | | Birds | 4 | 0 | 23 | 33 | 59 | 60 | 214 | 100 | 26 | 86 | 97 | 112 | 814 | | 1.7 |
| Taranaki | T | Miles | 1 | 8 | 6 | 13 | 7 | 9 | 9 | 14 | 10 | 3 | 10 | 4 | 99 | | |
| | | Birds | 2 | 8 | 7 | 20 | 9 | 11 | 13 | 12 | 9 | 10 | 14 | 5 | 120 | | 1.2 |
| Wellington West | WW | Miles | 1 | - | 42 | 33 | 26 | 61 | 28 | 42 | 18 | 32 | 29 | 4 | 316 | | |
| | | Birds | 1 | - | 73 | 42 | 56 | 122 | 59 | 194 | 89 | 343 | 283 | 33 | 1295 | | 4.1 |
| Westland | WD | Miles | - | - | 4 | - | 3 | - | 3 | 4 | 3 | - | 5 | - | 22 | | |
| | | Birds | - | - | 2 | - | 0 | - | 2 | 1 | 0 | - | 3 | - | 8 | | 0.4 |
| Bay of Plenty | BP | Miles | - | 3 | 1 | - | 1 | 4 | - | 6 | - | - | 3 | 3 | 21 | | |
| | | Birds | - | 3 | 0 | - | 3 | 10 | - | 1 | - | - | 4 | 50 | 71 | | 3.4 |
| East Coast North Island | EC | Miles | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 | | |
| | | Birds | - | - | - | - | - | - | - | - | - | - | 9 | - | 9 | | 9.0 |
| Wairarapa | WA | Miles | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 | | |
| | | Birds | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 | | 1.0 |
| Canterbury North | CN | Miles | 4 | - | - | - | - | - | - | - | 1 | - | 1 | 2 | 8 | | |
| | | Birds | 6 | - | - | - | - | - | - | - | 1 | - | 12 | 19 | 38 | | 4.8 |
| Canterbury South | CS | Miles | - | 3 | 4 | - | 3 | 3 | 3 | 3 | - | 1 | - | 5 | 25 | | |
| | | Birds | - | 3 | 8 | - | 4 | 1 | 0 | 0 | - | 1 | - | 4 | 21 | | 0.8 |
| Otago | O | Miles | 1 | 2 | - | - | - | 1 | - | 1 | - | - | - | - | 5 | | |
| | | Birds | 2 | 0 | - | - | - | 4 | - | 1 | - | - | - | - | 7 | | 1.4 |
| Southland | S | Miles | 6 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | 2 | 2 | - | 22 | | |
| | | Birds | 17 | 5 | 5 | 5 | 3 | 0 | 4 | - | - | 7 | 10 | - | 56 | | 2.5 |
| Wellington South | WS | Miles | - | 1 | - | - | 22 | 5 | 9 | 4 | 8 | 11 | 4 | 5 | 69 | | |
| | | Birds | - | 2 | - | - | 35 | 12 | 12 | 8 | 3 | 5 | 2 | 15 | 94 | | 1.4 |
| Total Miles Travelled (not listed) | | | 43 | 39 | 156 | 159 | 219 | 227 | 153 | 150 | 110 | 149 | 162 | 98 | (1665) | | |
| Total Miles Covered | | | 24 | 24 | 85 | 101 | 172 | 166 | 104 | 101 | 68 | 82 | 82 | 54 | 1063 | | |
| Total Birds Recorded | | | 32 | 22 | 118 | 100 | 169 | 220 | 304 | 317 | 128 | 452 | 434 | 238 | | 2534 | |
| Birds/Mile Covered/Month | | | 1.3 | 0.9 | 1.4 | 1.0 | 1.0 | 1.3 | 2.9 | 3.1 | 1.9 | 5.5 | 5.3 | 4.4 | | | 2.4 |

* No patrols were reported from Fiordland, Auckland East, or North Coast South Island.

TABLE 2 — Seabirds of which 1 to 5 specimens were found dead in 1969. Coast and month of discovery given.

| SPECIES OR SUBSPECIES | NUMBER FOUND | COAST(S) | MONTH(S) |
|--|--------------|-----------|-------------------------|
| <i>Eudyptula albosignata</i> | 1 | CS | 2 |
| <i>Eudyptes p. pachyrhynchus</i> | 1 | WD | 1 |
| <i>Phoebastria palpebrata</i> | 3 | AW | 6, 6, 11 |
| <i>Pterodroma macroptera</i> | 4 | AW, T, BP | 9, 10; 2; 11 |
| <i>inexpectata</i> | 4 | AW, WW, S | 3, 12; 3; 2 |
| <i>pycrofti</i> | 1 | AW | 12 |
| <i>Halocaena caerulea</i> | 5 | AW, WW | 10, 11; 10 ³ |
| <i>Procellaria cinerea</i> | 2 | BP, CN | 12; 11 |
| <i>parkinsoni</i> | 4 | AW | 5, 10, 10, 11 |
| <i>westlandica</i> | 2 | AW, WS | 11; 7 |
| <i>aequinoctialis</i> | 1 | AW | 4 |
| <i>Puffinus carneipes</i> | 3 | AW, WW | 12, 12; 6 |
| <i>Oceanites oceanicus</i> | 1 | S | 4 |
| <i>Garrodia nereis</i> | 2 | WW, WD | 11; 7 |
| <i>Phalacrocorax varius</i> | 2 | AW | 5 |
| <i>sulcirostris</i> | 1 | AW | 5 |
| <i>melanoleucos</i> | 2 | CN, S | 11; 1 |
| <i>Leucocarbo carunculatus chalconotus</i> | 1 | O | 8 |
| <i>Stictocarbo punctatus</i> | 5 | AW, CS, S | 5, 7, 9; 3; 3 |
| <i>Stercorarius parasiticus</i> | 1 | WW | 3 |
| <i>Hydroprogne caspia</i> | 2 | AW | 12 |
| <i>Sterna paradisaea</i> | 1 | S | 1 |
| TOTAL | 49 | | |

TABLE 3 — Coastal distribution of the more common seabirds found dead in 1969.

| SPECIES OR SUBSPECIES | AW | T | WW | WD | BP | EC | WA | CN | CS | O | S | WS | TOTAL BIRDS |
|-------------------------------|-----|-----|------|----|----|----|----|----|----|---|----|----|-------------|
| <i>Eudyptula minor</i> | 48 | 20 | 35 | - | - | - | - | 3 | 1 | - | - | 2 | 109 |
| <i>Diomedea spp.*</i> | 3 | - | 14 | - | - | - | - | - | - | - | 1 | - | 18 |
| <i>exulans</i> | 4 | - | 5 | - | 1 | - | - | 1 | 1 | - | - | 1 | 13 |
| <i>epomophora</i> | 6 | - | 1 | - | - | - | - | 3 | - | - | - | 6 | 16 |
| <i>melanophris</i> | 3 | 1 | 12 | - | - | - | - | - | - | - | 1 | 1 | 18 |
| <i>chrysostoma</i> | 15 | - | 31 | - | - | - | - | - | - | - | - | 3 | 49 |
| <i>bulleri</i> | 4 | - | 5 | - | - | - | - | - | - | - | 1 | - | 11 |
| <i>cauta cauta</i> | 13 | 1 | 13 | - | - | - | - | - | - | 1 | - | 1 | 29 |
| <i>cauta salvini</i> | 2 | - | 1 | - | 2 | - | - | - | - | - | - | 1 | 6 |
| <i>cauta subsp.</i> | 2 | - | 10 | - | - | - | - | - | - | - | - | - | 12 |
| <i>Macronectes giganteus</i> | 10 | 1 | 8 | 1 | - | - | - | - | - | - | - | 5 | 25 |
| <i>Daption capensis</i> | 18 | 3 | 26 | - | 1 | - | - | - | - | 1 | - | 3 | 52 |
| <i>Pterodroma lessoni</i> | 18 | - | 4 | - | - | - | - | - | - | - | - | - | 22 |
| <i>Pachyptila spp.*</i> | 26 | 5 | 376 | - | - | - | - | - | - | - | 5 | 1 | 413 |
| <i>vittata</i> | 7 | 1 | 12 | - | - | - | - | - | - | 1 | 7 | 1 | 29 |
| <i>salvini</i> | 17 | - | 1 | - | - | - | - | - | - | - | 1 | - | 19 |
| <i>desolata</i> | 6 | - | - | - | - | - | - | - | - | - | - | 1 | 7 |
| <i>belcheri</i> | 27 | 1 | 35 | - | - | - | - | - | - | - | - | - | 63 |
| <i>turtur</i> | 221 | 6 | 291 | - | 3 | - | - | 1 | - | - | 5 | 4 | 531 |
| <i>Puffinus spp.*</i> | - | 1 | 2 | - | - | - | - | - | - | - | 3 | - | 6 |
| <i>bulleri</i> | 8 | - | 11 | - | 4 | - | 1 | - | - | - | - | 3 | 27 |
| <i>griseus</i> | 106 | 7 | 74 | - | 31 | 9 | - | 20 | 2 | - | 13 | 19 | 281 |
| <i>tenuirostris</i> | 29 | 4 | 62 | - | 1 | - | - | - | 1 | - | 2 | 1 | 100 |
| <i>gavia gavia</i> | 103 | 12 | 74 | - | 5 | - | - | - | - | - | - | 4 | 198 |
| <i>huttoni</i> | 7 | - | 28 | - | - | - | - | 4 | 3 | - | - | - | 42 |
| <i>gavia/huttoni*</i> | 9 | - | 5 | - | - | - | - | 1 | - | - | - | - | 15 |
| <i>assimilis</i> | 6 | - | 2 | - | - | - | - | - | - | - | - | - | 8 |
| <i>Pelagodroma marina</i> | 2 | - | - | - | 6 | - | - | - | - | - | - | - | 8 |
| <i>Pelecanoides urinatrix</i> | 12 | 2 | 74 | 1 | 13 | - | - | - | - | - | 2 | 2 | 106 |
| <i>Sula bassana serrator</i> | 30 | 1 | 7 | - | 1 | - | - | - | - | - | - | - | 39 |
| <i>Phalacrocorax carbo</i> | 2 | 1 | 5 | 1 | - | - | - | - | 1 | - | - | 1 | 11 |
| <i>Larus dominicanus</i> | 20 | 13 | 52 | 2 | - | - | - | 1 | 6 | 2 | 2 | 27 | 125 |
| <i>novae-hollandiae</i> | 4 | 33 | 5 | - | 1 | - | - | 1 | - | - | 4 | 6 | 54 |
| <i>bulleri</i> | - | - | 3 | - | - | - | - | - | 2 | - | 2 | - | 7 |
| <i>Sterna striata</i> | - | 6 | 4 | 1 | - | - | - | 1 | 2 | - | 2 | - | 16 |
| TOTALS | 788 | 119 | 1288 | 6 | 69 | 9 | 1 | 36 | 19 | 6 | 51 | 93 | 2485 |

Species not identified.

TABLE 4 — Monthly distribution of the more common seabirds found dead in 1969.

| SPECIES OR SUBSPECIES | MONTH | | | | | | | | | | | | TOTAL BIRDS |
|-------------------------------|-------|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| <i>Eudyptula minor</i> | 2 | 5 | 20 | 7 | 6 | 13 | 9 | 14 | 11 | 7 | 10 | 5 | 109 |
| <i>Diomedea</i> spp.* | 1 | - | - | - | 1 | - | 3 | 3 | 1 | 5 | 4 | - | 18 |
| <i>exulans</i> | - | - | 2 | 2 | 2 | 2 | - | 1 | 1 | 1 | 1 | 1 | 13 |
| <i>epomophora</i> | 3 | - | 1 | 1 | 5 | 1 | - | - | - | - | 4 | 1 | 16 |
| <i>melanophris</i> | 1 | - | - | 1 | 2 | 12 | 1 | - | 1 | - | - | - | 18 |
| <i>chrysostoma</i> | - | - | 1 | - | 2 | 27 | 6 | 10 | 1 | 2 | - | - | 49 |
| <i>bulleri</i> | - | - | 1 | - | 1 | 3 | 2 | 2 | 1 | 1 | - | - | 11 |
| <i>cauta cauta</i> | 1 | - | 4 | 6 | 6 | 1 | 2 | 1 | 1 | 3 | 3 | 1 | 29 |
| <i>cauta salvini</i> | - | - | - | - | 1 | 2 | - | 1 | - | 1 | - | 1 | 6 |
| <i>cauta subsp.</i> | - | - | 3 | - | - | 1 | - | - | 1 | 3 | 3 | 1 | 12 |
| <i>Macronectes giganteus</i> | 1 | - | - | - | 2 | 4 | 5 | 4 | 3 | 4 | 2 | - | 25 |
| <i>Daption capensis</i> | 1 | - | - | - | - | 12 | 6 | 10 | 2 | 12 | 6 | 3 | 52 |
| <i>Pterodroma lessoni</i> | - | - | - | 4 | - | 3 | - | 5 | - | 4 | 3 | 3 | 22 |
| <i>Pachyptila</i> spp.* | - | - | 19 | 7 | 1 | 5 | 8 | 56 | 7 | 136 | 157 | 17 | 413 |
| <i>vittata</i> | 4 | - | - | 1 | - | 2 | 5 | 3 | 1 | 8 | 4 | 1 | 29 |
| <i>salvini</i> | - | - | - | - | - | 2 | 11 | 2 | - | 3 | 1 | - | 19 |
| <i>desolata</i> | - | - | - | - | - | - | 5 | 1 | - | 1 | - | - | 7 |
| <i>belcheri</i> | - | - | - | - | - | 2 | 22 | 35 | 3 | 1 | - | - | 63 |
| <i>turtur</i> | 2 | - | 4 | 13 | 7 | 20 | 115 | 61 | 61 | 146 | 73 | 29 | 531 |
| <i>Puffinus</i> spp.* | - | 2 | - | - | 2 | - | - | 1 | - | - | 1 | - | 6 |
| <i>bulleri</i> | - | 2 | 2 | 2 | 3 | 2 | - | - | - | 4 | 6 | 6 | 27 |
| <i>griseus</i> | 6 | 2 | 10 | 7 | 63 | 18 | 3 | 1 | - | 14 | 62 | 95 | 281 |
| <i>tenuirostris</i> | 2 | 3 | 8 | 1 | 6 | - | 1 | 2 | - | 31 | 34 | 12 | 100 |
| <i>gavia gavia</i> | - | - | 5 | 8 | 6 | 19 | 74 | 56 | 8 | 8 | 7 | 7 | 198 |
| <i>huttoni</i> | - | - | 4 | - | 1 | 6 | - | - | 3 | 19 | 7 | 2 | 42 |
| <i>gavia/huttoni</i> * | 1 | - | - | 1 | - | 7 | 2 | - | - | 1 | 3 | - | 15 |
| <i>assimilis</i> | 1 | - | - | 1 | 1 | 1 | - | - | - | 2 | 1 | 1 | 8 |
| <i>Pelagodroma marina</i> | - | - | - | - | - | - | - | - | 1 | 1 | - | 6 | 8 |
| <i>Pelecanoides urinatrix</i> | - | - | - | 7 | 4 | 21 | 10 | 34 | 3 | 7 | 7 | 13 | 106 |
| <i>Sula bassana serrator</i> | - | 2 | 4 | 5 | 7 | 2 | 1 | 3 | 3 | 3 | 3 | 6 | 39 |
| <i>Phalacrocorax carbo</i> | - | - | 1 | 2 | - | 1 | - | 1 | - | - | 5 | 1 | 11 |
| <i>Larus dominicanus</i> | 2 | 1 | 17 | 8 | 26 | 22 | 5 | 6 | 8 | 10 | 8 | 12 | 125 |
| <i>novaehollandiae</i> | 1 | 1 | 2 | 10 | 5 | 4 | 3 | 4 | 6 | 8 | 6 | 6 | 54 |
| <i>bulleri</i> | - | - | 2 | - | 1 | - | 1 | - | - | - | 3 | - | 7 |
| <i>Sterna striata</i> | 1 | 1 | 3 | 4 | 5 | - | - | - | - | 1 | - | 1 | 16 |
| TOTALS | 30 | 19 | 113 | 98 | 164 | 217 | 301 | 316 | 125 | 445 | 426 | 231 | 2485 |

* Species not identified.

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