Notes on Petrels washed ashore, West Coast, Auckland Province, N.Z.

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As questions arise from time to time in connection with the occurrence of numbers of dead Short-tailed and Wedge-tailed Shearwaters on Australian coasts, a few notes on the occurrence of dead Petrels on New Zealand coasts, more particularly the west, may prove of interest.

The few observations recorded here extend over a period of five years, and have been made whenever opportunities occurred. Some trips to points on the west coast within a thirty-mile radius of Auckland, between the Manukau and Kapara Harbour entrances, have furnished some information thus secured is necessarily incomplete, but the following notes should serve as a preliminary record of the commoner species.

**Pelagodroma marina.** White-faced Storm-Petrel.—This is the only Storm-Petrel that has so far come under my notice on the coast, two specimens being found on Muriwai Beach early in January, 1920. It is common, however, on the east coast, breeding just outside the entrance to Auckland Harbour.

**Puffinus assimilis.** Allied Shearwater.—Not common. A few bodies appear on the beaches in November, and continue to wash ashore until early in January.

**Puffinus tenuirostris.** Short-tailed Shearwater.—This common Australian Mutton-Bird is rarely met with on the west coast here. One found during January, 1920, is my only record of it up to the present.

**Puffinus griseus.** Sombrero Shearwater (New Zealand Mutton-Bird). Numbers in immense numbers between the months of October and February, while a few dead birds may be picked up as early as September, and as late as March or April. They are usually in good condition, and fairly fat, although the stomach is invariably empty.

**Puffinus bellheri.** Long-tailed Shearwater.—During January trips to the coast, I have twice found the remains of this rare Petrel, in each case too late to preserve any parts except tail, tarsi, skull, and a few of the primaries.

**Puffinus gavia.** Forster Shearwater.—Washed ashore on both east and west coasts from December until March, but not in great numbers.

**Puffinus carneipes.** Flesh-footed Shearwater.—Although a common breeder on the eastern side of the Auckland Peninsula, this bird is evidently not very common in the Tasman Sea, as I have only one specimen from the west coast.

**Procellaria antarctica.** Silver-Grey Petrel.—A straggler, so far found only once, during January.

**Procellaria parkinsoni.** Black Petrel.—Breeds at various places on the east coast of the Auckland district, but does not seem common on the west. Early this year (1921) I found the first that has come under my notice.

**Pterodroma macroptera.** Great-winged Petrel.—Breeds at several places along the west coast, north of Manukau Heads, and is often
found dead on the tide-mark, but, like nearly all the species mentioned, only during the summer months.

*Pterodroma lessonii.* White-headed Petrel.—The remains of this bird may often be found on the west coast beaches during the summer months.

*Pterodroma cooki.* Cook Petrel.—Dead bodies of Cook Petrel are common on the beaches in summer, and also those of similar species, whose minor differences it is difficult to detect in the mere bundles of bones and feathers which are usually cast up by the surf.

*Macronectes gigantea.* Giant Petrel.—A regular winter visitor to both coasts of the district, venturing into all the bays and harbours. Here in Auckland they may sometimes be seen circling about within a few yards of the wharves, lighting with the Black-backed Gulls for food. They appear in May and leave again in October, although they are absent for a few weeks in mid-winter, evidently going still further north. Their migratory movements thus seem to coincide with those of whales, although probably not so extensive, the latter going as far as Norfolk Island. Dead birds may often be picked up during the early summer.

*Prions (all species).—* During the winter months, these birds, with an occasional Albatross, are the only Petrels found on the beach. During winter, the gales, all four species, with apparently intermediate varieties, perish in hundreds, being found miles inland, and often blowing right across the island from the west to the east coast. I have not met with specimens of the Blue Petrel (*Halobaena cornuta*), but have heard that they occasionally suffer in the same way. Prions also wash ashore with the other Petrels mentioned during the summer months, when bodies of *Prion tuberculosus* are more commonly found.

*Pelecanoides urinatrix.* Diving Petrel.—The usual December batch of dead Petrels always includes a few of these little birds, in very worn plumage, especially on the wings.

*Albatrosses.*—Except for the Wandering Albatross (*Diomedea exulans*) and the Black-browed (*D. melanophris*) of which occasional specimens are found throughout the year, I have so far been unable to identify with certainty all the birds of this family found. Unless obtained quite fresh, the colours of bill and feet are very uncertain, while the comparatively loose plumage is soon blown off, leaving only the gular. The combined effect of hot sand and salt water on the bodies of smaller birds is to mummify them, thus rendering identification fairly easy, but this is not the case with the Albatrosses, whose remains are very soon scattered.

Consideration of the time of year at which the majority of birds above mentioned perish, seems to show that, except in the case of the Prions, heavy weather and gales are not an important cause of mortality among Petrels. In the case of species breeding locally it may be that the dead birds are the unfortunate surplus left over after a crowded breeding place has been fully occupied, but in the case of Petrels which breed further south it is more probable that the birds found are the stragglers of a migratory movement, who, through accident or weakness, lag behind while the others move south, and finally are caught in ungenial conditions of summer weather off our coasts, with their usual food supply no longer so abundant in these waters as it was during the winter—Nature's method of weeding out the unfit.