## NOTES ON THE BIRDS OF MOTUNAU ISLAND

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Motunau Island lies two miles south-east of the Motunau River mouth and at one stage in the past has been part of the mainland. The island rises 110 feet and is topped by a plateau about three acres in extent. This plateau is covered mainly with tussock, except for one or two patches of bracken. The scotch thistle grows plentifully throughout. Two cabbage tree are the only "trees" of any type on the island. The south and east sides, which have relatively gentle slopes, are covered in tussock with scattered patches of scotch thistle. The north and west sides are very steep and only in a few places is there any vegetation, this being the ice-plant (Mesembryanthemum).

In the late nincties, sheep were grazed on the island, but were later removed owing to competition from rabbits which had been foolishly introduced there by a shepherd in 1893. The offspring of these rabbits persist on Motunau Island to the present day. The present population consists of rabbits of numerous colour varieties, including black, golden brown and streaked. These rabbits suffer from some disease which causes a "spotted effect" on their liver, which makes them unfit for human consumption.

The landing place is a small shingle beach on the north-east side of the island, and only in very calm weather is it possible to effect a landing. On January 15 and 16, 1953, Mr. W. V. Jacobs and myself managed to land for a few hours. This was made possible through the help of Mr. H. Taggart, of Christchurch.

Notes on the birds follows:---

PENGUIN (Eudyptula sp.).—This penguin I identified as the whiteflippered penguin (Eudyptula albosignata), but as I did not collect a specimen for comparison with museum series, the identity of the breeding penguin on Motunau Island must remain in doubt until such time as specimens can be obtained for comparison. If my identification of this bird is correct, then the breeding range of the white-flippered penguin will be extended to take in Motunau Island, forty miles north of Banks Peninsula. This penguin nests plentifully all over the island, especially under the beach boulders which are piled high on the western and northern sides of the island. These provide excellent nesting places for this species; under every rock there are one or two nests; under one large rock which formed a small cave, I found 22 nests. They also nest in burrows, mainly on the steeper north and eastern sides, although a few may be found on the plateau. It was easy to determine the species which inhabited each burrow by pushing a stick into the back of the burrow; if there was a series of sharp tugs the burrow belonged to a penguin, whereas if it was a whale bird (Pachyptila turtur) there would be a gentle tugging and pushing of the stick. At the time of our visit, January 15 and 16, the burrows were occupied by nearly full-grown chicks in a brownish down covering; no adults were present at the nests examined.

FAIRY PRION (Pachyptila turtur).—The fairy prion is an abundant nesting petrel on Motunau Island. Burrows of this species were located all over the island, large concentrations being found on the south and east sides. The fairv prion apparently falls victim to the ravages of the harrier and maybe, the black-backed gull; large numbers of skeletons were present at various parts of the island. The burrows of this species were about two or three feet long with a sharp turn to the left or right near the end; at the end the burrow was slightly enlarged. There a small nest was made of grass and feathers. At the time of our visit the burrows were occupied by chicks covered in greyish-blue down, the primaries were beginning to show and 1½ inches of down had been lost from the forehead. The chicks examined on Motunau resemble very closely a chick photographed on Whero Island by L. E. Richdale (Trans. Royal Society of N.Z., Vol. 74, Plate 21, Fig. 1). This bird was photographed on January 29, whereas the birds observed on Motunau Island at the same stage were noted on

January 15. This suggests a slightly earlier breeding season for the Motunau Island birds. No adult fairy prions were noted on the island or in adjacent waters during our visit.

SOOTY SHEARWATER (Puffinus griseus).—We did not locate any nests on the island although the sooty shearwater was common in waters off the island. In the Stead collection at the Canterbury Museum, there is a pair of sooty shearwaters taken from a burrow together on Motunau Island by Edgar Stead on December 23, 1928.

FLUTTERING SHEARWATER (Puffinus gavia subspecies).—About a dozen gavia-type petrels were observed on January 14, 16 and 17, 1953, feeding among the kelp on the reefs off Motunau Island. I was unable to determine whether they belonged to the typical form of gavia or to the elusive huttoni form.

WHITE-FACED STORM PETREL (Pelagodroma marina maoriana). Stead records this species from Motunau Island and he obtained eggs from the island on November 24, 1928. During our visit in January, 1953, we did not locate any nesting storm petrels, but they probably had burrows in the bracken on the north-west sector of the plateau, where small burrows were seen, but we did not have time to investigate them and establish the identity of their occupants.

PIED SHAG (Phalacrocorax varius varius).—Three seen drying themselves on the shingle beach near the landing place on January 15 and 16, 1953. Representatives of this species can be observed feeding in waters around the island at any time of the day.

SPOTTED SHAG (Phalacrocorax (Stictocarbo) punctatus punctatus). The spotted shag can be seen feeding in the waters around the island at any time of the day, and eight birds were noted resting on a large rock near the landing on January 15 and 16, 1953. This species probably nests on the north-west headland, but we visited the island too late to note it as a breeding bird of the island.

AUSTRALASIAN HARRIER (Circus approximans gouldi).—On January 16, 1953, we flushed a harrier on the plateau; it was feeding on a black rabbit. At various other points on the island we discovered the remains of a harrier's dinner. Harriers are apparently not resident at the island, although Stead, in his "Life Histories of New Zealand Birds," p. 107, states that he found a nest with eggs on the island; but during our visit we did not locate a nest or any young, and I am quite certain there was no nest on the island.

SOUTHERN BLACK-BACKED GULL (Larus dominicanus).—This species uses Motunau Island as a roost every night. During our stay in January 1953 and 1954 I observed numerous black-backed gulls flying towards the island. This species also nests in the island and on January 15 and 16, 1953, we found thirty to forty nests that had been used during the season. Only twelve nests contained chicks, which were nearly ready to leave. These nests were located on the north and east sides about twenty feet above the high tide mark.

WHITE-FRONTED TERN (Sterna striata).—Numbers can be seen feeding around the island and also in small groups in sheltered coves bathing and washing themselves.

ROCK PIGEON (Columba livia).—Three birds flew out of the cliffs on the north-western side of the island on January 16, 1953. Apparently large numbers roost on the island, according to a local fisherman.

GOLDFINCH (Carduelis carduelis britannica).—A small flock of a dozen birds noted feeding on thistles and other seeds during our visit in January, 1953.

STARLING (Sturnus vulgaris).—Two starlings flew out of the cliffs on the north-west side on January 16, 1953. The residents say large flocks of starlings roost on the island in winter.