

NESTING OF THE CODFISH ISLAND FERNBIRD

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SUMMARY

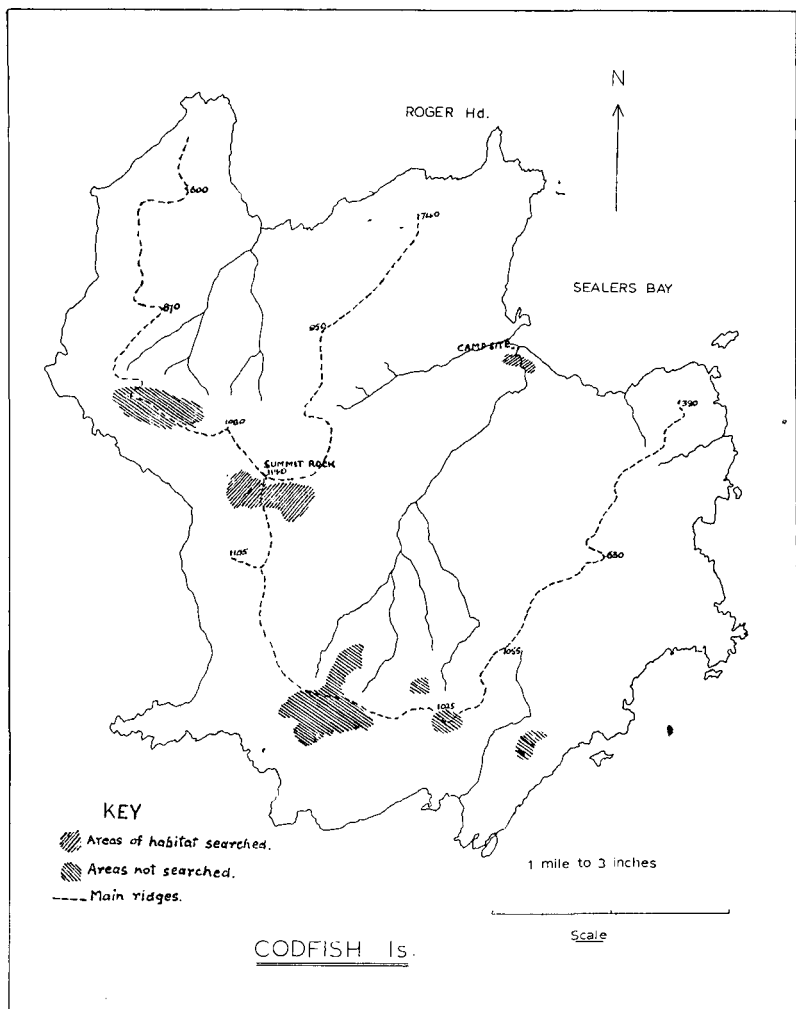
The habitat of the Codfish Island Fernbird (*Bowdleria punctata wilsoni*) is described as to type and extent, and several nests with eggs are recorded. Some notes on voice are given.

INTRODUCTION

Codfish is a large island (3660 acres) off the north-west coast of Stewart Island, and separated from it by a deep channel two miles wide at the nearest points. E. F. Stead (1) spent three weeks on the island in the summer of 1935/6, and first described the Codfish Island Fernbird as a new subspecies, naming it in honour of his constant companion, Major Robert Wilson. Stead says "in the scrub and fern along the beach, as well as in the scrub in the higher portions of the island we met them, usually getting a mere glimpse as they fluttered from one bit of cover to another." He goes on to describe the finding of an empty nest "in the top of a thick scrub bush heavily hung with convolvulus." Strangely enough, Wilson (2) writing of the same expedition, says "There was not a big expanse of fern available, only round the beach of Sealers' Bay, and fernbirds were not plentiful even there, so probably there are not a great number existing." The deserted nest found by Stead is the only one ever recorded, so that we landed on Codfish on 6/12/66 with hopes of making a further study of the bird, perhaps finding nests, and assessing the extent of its habitat and numbers. In March, 1965, we had observed (Blackburn (3)) the birds in some numbers in the low scrub west of the Summit Rock.

DESCRIPTION OF HABITAT

The habitat along the sand dunes of Sealers' Bay is extremely restricted, and Fernbirds were only seen and heard towards the western end, where there is mostly a tangled mass of bracken fern (*Pteridium aquilinum*) and flax (*Phormium* sp.), making observation difficult. Dell (4) recorded in 1948 that Fernbirds were "comparatively abundant on the fixed dunes at Sealers' Bay . . . though the area suitable for the species is not extensive." In this limited area, the total population would probably not exceed three or four pairs. Kean (5) who accompanied Dell and others in 1948, in his report to Wildlife Division, suggested that judicious burning off of the sand-dune area would increase the Fernbird habitat, on which Fineran (6) comments "Such a proposal is irreconcilable with vegetation conservation and fortunately has not been adopted." It was apparently not realised that the main habitat of the bird is the "pakihi," which covers considerable areas of the high easy slopes, these being shown on the map in Figure 1. The pakihi consists of vegetation 3 to 7 feet high, mainly stunted rata (*Metrosideros umbellata*) and manuka (*Leptospermum scoparium*), *Dracophyllum longifolium*, flax (*Phormium cotensoi*), *Olearia cotensoi*, *O. oparaina*, *Gahnia procera*, Fivefinger (*Pseudopanax colensoi*), and *Cyathodes acerosa*. A full description of this type of vegetation is given by Fineran (7). The ground is water-logged in some areas, dry in others, and is covered with lichens, mosses, and comb sedge (*Oreobolus* spp.). About 5 percent of the whole is bare ground, and there is evidence that it has been fired in patches at some stage.



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Fig. 1 — Map showing areas of Fernbird habitat.

NESTS AND EGGS

The area of pakihi most easily accessible overland from the camp site at Sealers' Bay is that lying east, south, and west of Summit Rock. Recurring storms prevented us from using our dinghy and outboard motor to land at points of the coastline from which other and larger areas would have been more easily reached. Our first visit to the summit was on 11/12/66, under unfavourable conditions. A high S.W. gale prevented much movement or observation, but overnight some shallow caves on the east side of the summit rocks provided reasonable



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Plate VI — Typical 'pakihi' scrub adjacent to the Summit on Codfish Island. Clumps of gahnia in foreground.

shelter from the violent wind and occasional rain squalls. We were relieved to find that good water is readily available by digging a shallow hole in the water-logged pakihi nearby. Conditions next morning rendered a search for the Fernbird in the pakihi impossible, but a quick look on the sheltered side just east of the summit produced a bird, and then a nest. This was placed two feet above ground

level, in a clump of gahnia grass, which sheltered it perfectly from the wind and driving rain, for the wide blades of the plant, when bent over by the wind, provided ideal overhead cover. The nest was constructed wholly of strips of dry gahnia, and was lined with feathers of the Mottled Petrel. Eggs were three, broadly elliptical, pinkish with light mauve-brown spots all over, but more heavily spotted towards the larger end. They appeared to be freshly laid. We considered that gahnia probably provides the usual nest site in the pakihi, for no other vegetation appeared suitable.

The next visit to the summit was on 14/12/66, when conditions were fair, with a moderate S.W. wind. Search was at first concentrated on the area east of the summit, and a second nest was soon found, again containing three freshly laid eggs. This was situated 40 yards S.W. of the nest found on 12/12/66, and the site was identical, i.e. at 2 feet in a clump of gahnia. Construction and materials were also identical with those of the first nest. A little later a third nest was discovered, about 80 yards S.E. of the first, again in a precisely similar situation. This nest contained two damaged eggs and one unbroken, the damage having been caused a day or two previously, and apparently by the bird itself, as no other cause seemed likely. The eggs were very slightly incubated. In addition to the usual lining of whitish feathers of Mottled Petrel, two Parakeet and one Weka feathers were noted.



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Plate VII — Nest of Codfish Island Fernbird, constructed of dry gahnia and lined with feathers of Mottled Petrel.

Measurements taken of the three clutches were as follows:

No. 1	21.0 x 16.4	20.4 x 16.2	20.6 x 16.6
No. 2	22.5 x 16.9	22.2 x 16.7	22.2 x 16.5
No. 3	21.5 x 16.5	21.2 x 16.5	20.5 x 16.5

The consistently larger size of the eggs in the second clutch was probably due to the female being an older bird. This particular female returned and twice settled on the nest while two observers measuring the eggs were standing almost over the nest. In breadth the measurements are consistently greater than those recorded by Oliver (8) for the Stewart Island Fernbird, but conform exactly with those of the Snares Island Fernbird.

Further search east of the summit revealed some old nests and some that had been half completed and abandoned. An hour was then spent in the area S.W. of Summit Rock, but only several disused nests were found, again all in gahnia.

VOICE

The call of both parent birds when disturbed by approach to the nest was noted as a quick "tchic" or "tchip." A male in the sand-dune habitat allowed several periods of close observation, quite usually at 3 or 4 feet, as he was quite fearless. His song in the open consisted of an upward cadence of two very musical notes, with a timbre akin to that of the Bellbird. Under cover, he called "cheong" in a downward cadence. When moving on open ground, he appeared "hunched up" and much like a small quail.

DISCUSSION

Although no immature birds were seen, which is not surprising in view of the nature of the habitat, it is most probable that the fresh clutches of eggs in December were part of a second nesting of the species. The climate of Codfish Island is considerably milder than that of the Muttonbird Islands to the south, and independent or fledged young of several species of bush birds were observed during our visit. The disused nests in the pakihi were probably of the first nesting, for under the harsh winter conditions nests would quickly disintegrate. From the close proximity to each other of the several nests in use, we formed an opinion that the species is numerous and flourishing; but it may be that the area east of the summit was favoured on account of it being somewhat sheltered from the prevailing N.W. and S.W. gales. Conditions at the time of our visit were, however, unusually severe. Mr. Jimmy Waitiri, the competent and co-operative owner of the 60ft. crayfish boat "Buccaneer," who conveyed us to the island, stated that it was by far the worst December for many years. There are many sheltered slopes in other areas of pakihi, if such shelter is significant; but to reach these overland entails an arduous trip of many hours. It was most unfortunate, therefore, that weather conditions prevented much use of our dinghy.

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