## NOTES ON THE OCCURRENCE OF THE BELLBIRD IN NORTH AUCKLAND.

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The effect of settlement on the bellbird (Anthornis melanura) has attracted interest since it suddenly declined almost to extinction, at least in the North Island, in the 1860's. Buller's "History of the Birds of New Zealand" (Ist and 2nd editions, and Supplement: 1873, 1888, 1905) contains much interesting information at the time when numbers were at their lowest, and discussion of the theories advanced in explanation of the decline. Myers, in 1923, in his two excellent papers on the status of New Zealand's bird life, was able to point to a number of records indicating that the bellbird was then established or increasing in many localities in the North Island. In one paper this author (Myers, 1923b) summarises evidence on the decline and marked resurgence of the bellbird. A further statement in the "New Zealand Journal of Agriculture" (Myers, 1923a) sums up the position, stating that the bellbird is "one of those native birds which, after showing a great decline in numbers, are now more than holding their own," and continues: "The bellbird, however, is much less familiar to most people than the tui, partly owing to its quite recent return to settled districts, and largely, no doubt, to its smaller size and less conspicuous colour. . . What has been said of the good work done by the tui in the bush applies almost equally well to that of the bellbird, while in many Eucalyptus-planted districts the latter is the commoner bird of the two." Two other sources of brief comment on the bellbird's change of status are Stead's "Life Histories of New Zealand Birds" (1932, p. 145), and the "New Zealand Forest-inhabiting Birds Album" of the Forest & Bird Protection Society of New Zealand.

I have not made the attempt here to assess the bellbird's change of status from locality to locality over the whole of the North Island, but a survey along these lines of the early literature would be of very considerable interest. It is evident from the early accounts that, in at least the more accessible parts of the North Island, the decrease was marked and rather sudden, and all the more apparent as the bird had previously been extremely abundant. It seems probable, however, that it remained in certain districts, even if in reduced numbers. Thus Buller (1878: 1888, p. 87) was informed by Captain Gilbert Mair that between about 1870-80 he had not met with it at all, "except on the island of Mokoia" (in Lake Rotorua), in "a tract of manuka bush covering about a thousand acres of land at the foot of Mt. Edgecumbe," and "in the high scrub at Waitahanui about ten miles from Taupo."

In the South Island a less marked decrease was reported, and it appears to have remained fairly plentiful in certain areas. In Canterbury, according to Stead (1932), bellbirds reached their lowest ebb "around 1910, since when they have increased considerably, being now permanent residents, or regular autumn and winter visitors to districts from which they had been absent for years."

In the works of Buller and Myers, referred to above, there is a good deal of interesting discussion of factors thought to be responsible for the decline. Briefly, it was realised that the decrease was so sudden and well-marked that there must be some explanation other than the early stages of firing and clearing of the bush. The arguments referred mainly to the effect respectively of competition by the newly-introduced honey-bee, and of the destructive effect of rats.\* (A difficulty of attempting any explanation was, of course, that the decrease was much more marked in the North than in the South Island, although conditions likely to affect the numbers of bellbirds in both islands were apparently the same.)

During the period of its decrease, the bellbird remained common on various islands offshore (Buller mentions Little Barrier, the Poor Knights

<sup>\*</sup> Buller finally discounts the effect of rats because he found both rats and bellbirds common in 1893 on Motutaiko Island (Lake Taupo). If these were Maori rats (Ratus exulans) they would probably have had little effect upon the birds of the island, but, unfortunately, nothing is known of their identity.

and Kapiti); and it is interesting that Buller recorded it as still abundant on Mokoia Island, in Lake Rotorua, and (Buller: 1888; 1895; 1905) on Motutaiko Isand, in Lake Taupo. As the factors causing decrease were evidently absent on these islands, it is of interest that on some offshore islands the bellbird has proved to be capable of existing under conditions of great modification. Thus on Motuihe Island, only 10 miles from Auckland in the Hauraki Gulf, it lives mainly in groves of tall pohutukawa (Metrosideros excelsa) scattered over farmland, and with practically no undergrowth.\* On Great Island, of the Three Kings group, it was the only species of bird to remain plentiful throughout the period of modification, when the whole vegetation was impoverished because of the presence of goats (Turbott, 1948, and Turbott and Buddle, 1948). A further observation of interest is that on Great Barrier Island, the large outlier of the Hauraki Gulf, the bellbird although abundant in 1868 according to Hutton, appeared to be absent when Reischek visited the island ten years later (Buller, 1888).

Although the above discussions did not give rise to any satisfactory explanation of the bellbird's decrease, the early observations and discussions will continue to be of interest in relation to recent changes in status. As more information is obtained it will be possible for these early records to be re-assessed.

From the mainland of North Auckland the bellbird has been quite absent since 1850-60, although there have been occasional records probably of individuals which have strayed from the neighbouring islands. It has not occurred in the Waitakere Ranges, immediately west of Auckland, apparently since the same period. In 1873, in the "History of the Birds of New Zealand" (1st edition), Buller stated that: "In the Waikato it is comparatively scarce, on the East Coast it is only rarely met with, and from the woods north of Auckland it has disappeared altogether. In my journeys through the Kaipara district, eighteen years ago, I found this bird excessively abundant everywhere; and on the banks of the Wairoa the bush fairly swarmed with them. Dr. Hector, who passed over the same ground in 1866, assures me that he scarcely ever met with it; and a valued correspondent, writing from Whangarei (about 80 miles north of Auckland) says:—'In 1859 this bird was very abundant here, in 1860 it was less numerous, in 1862 it was extremely rare, and from 1863 to 1866 I never saw but one individual. It now seems to be entirely extinct in this district.' "According to Judge Maning, who supplied information to Buller (ibid.), the bellbird was commonly taken in the Hokianga district by Maori fowlers who "not very long ago . . . would come out of the woods with hundreds of Korimakos hung about them in strings . . now they are well nigh extinct." Buller also says (1888: 2nd edition, p. 90, footnote): "Forty years ago literally thousands of these birds annually frequented the groves of wattle around the old mission-station at Tangiteroria (on the northern Wairoa) . . ."

It was thus very plentiful in North Auckland, according to Buller's account, up to the early 1860's, but became extinct, or nearly so, shortly afterwards. A further comment after its disappearance is that by Reischek (1887), who wrote that: "At Whangarei Heads, in the North Island, I saw one specimen which was blown in a gale from Morotiri Island. . I searched all the northern forests from the Mokau to the Bay of Islands, and across from one coast to the other, but never again observed it. I attribute its disappearance to cats, rats, bees and bush-fires."

The following observations on some recent occurrences in North Auckland are thus especially interesting, as it appears that in at least two areas, Warkworth and Whangarei Heads, bellbirds may have again become permanently established.

<sup>\*</sup> In January, 1953, Mr. B. Cranston, keeper at Tiri Lighthouse, 20 miles from Auckland, informed me that belibirds had been seen recently. Tiri Island is now almost entirely cleared, but there are scattered pohutukawas on the coast and a little bush at the north end. Formerly belibirds were abundant: several specimens in the Auckland Museum were collected there in 1909.

In the Dome Valley district, Warkworth, a pair of bellbirds was observed in about April, 1951, by Mr. S. G. Gittos, whose property adjoins the State Forest reserve below the prominent peak known as the Dome (1,105 feet). The birds stayed in the garden and nearer trees for some months, and fed on nectar from orchard flowers, but also flew up to windows to take insects and spiders, even coming under the verandah. For the remainder of the summer they were seen at intervals, but only singly and generally not close to the house; and one was seen by Mr. Gittos in the bush behind his farm. Two birds were seen again close to the house in July, 1952; one, in moult, had most of the tail feathers missing. During a visit in March, 1952, when, with Mr. Gittos, I had examined fairly thoroughly the Dome State Forest, and visited the neighbouring forest at the head of Waiwhio Valley, bellbirds were not seen. However, Mr. Gittos reported that there appeared to be quite a number about the area during the following summer of 1952-53.

A recent visit was made on 24th July, 1953, when I was accompanied by Dr. D. S. Farner. On this occasion, with Mr. Gittos, we observed several bellbirds on slopes immediately above the farmland clothed in scrub and second-growth bush. They were apparently feeding on the nectar of native fuchsia (Fuchsia excorticata) which was in full flower. Six at least sang fairly close at hand, and we watched closely one male bird singing in a tall pine. Another, also a male in fresh plumage, was later observed very closely as it sang in the belt of trees near the house.

Future observation here will be of great interest, and especially confirmation that the birds are established and breeding. It would be interesting further to observe the extent to which these birds are established in the two adjacent forest areas. Mr. Gittos has mentioned to me the

interesting point that none have come down to take spiders, etc., from the windows, or come into the house, since the first pair were seen.

In 1951 I also received a record of the bellbird from Mr. Digby Graham, who wrote that "on 20th August I observed a bellbird sipping nectar from the flowers of a flame tree at Manaia Gardens, Whangarei Heads."

On a visit to Peach Cove, on the southern portion of coast beneath the Bream Head range, Whangarei Heads, on 17th August, 1934, I observed several bellbirds which were singing vigorously and chasing in pairs through the open pohutukawa forest. It seems, in view of this and the recent record given above by Mr. Graham, that bellbirds may be established in the fairly extensive forest areas surrounding the peaks of both Mt. Manaia and Bream Head in this area.

Another North Auckland report has recently been received from Miss M. Graham, who observed two bellbirds in early April, 1953, on the property of Mr. J. H. Carter, of Mata Hill, in the Mangapai district. The birds were also seen by Mr. Carter who has not previously seen them in the district. This locality is in hilly country, approximately 15 miles south of Whangarei, and has considerable areas of bush in the neighbourhood. The harsh alarm note was noticed when a cat approached; subsequently the identification was confirmed from specimens at Auckland Museum.

Full details of all these occurrences are given as it is hoped that observers will follow up these reports in these districts and elsewhere in North Auckland. In this region the bellbird is at present found in large numbers on the various offshore islands: The Poor Knights, Hen (Taranga) and Chickens (Morotiri), and Little Barrier Island. There are smaller numbers on the Cavalli Islands and Fanal Island (Mokohinau group). They have evidently crossed to the mainland from the offshore islands, and would be likely to reach Whangarei Heads and Warkworth from the Chickens group and Little Barrier Island respectively.

I am grateful to Dr. W. M. Hamilton for the information that on several occasions since c. 1920 bellbirds have been seen in gardens in the Mahurangi district, not far from Warkworth. These were doubtless stray birds, and would be quite likely to have come from Little Barrier Island. Mr. G. R. Hutchinson informs me that he has recorded bellbirds occasionally in this district near the coast to the south of Leigh. A further record

at Ti Point (Omaha Bay), in the same district, was made some two years ago by Mr. A. H. Hooper, who has kindly handed on the information to me.

There have been occasional reports of bellbirds in Auckland city. In October-November, 1931, a bellbird was seen for several days feeding in flowering kowhai (Edwardsia microphylla) at St. Heliers (report received from Mr. W. J. Rutherford). Recently, on 6th March, 1953, Mr. B. Knight observed one feeding on fruiting karamu (Coprosma lucida) in a garden in Symonds Street, adjacent to Grafton Gully. These visiting birds may have come from Motuihe Island, approximately 10 miles away, or possibly from the Hunua forest area to the south-east.

The following notes are added in order to record an attempt made by members of the Auckland Zoological Society to introduce bellbirds to the Waitakere Ranges (see also reference by Stead: 1932, p. 146). Although the birds were observed after their release, there have been no reports since 1946 when the last record was made by Mr. K. Thompson, caretaker of Huia Dam, so that there is some considerable doubt as to whether they finally became established. They had been seen at various points in the Huia and Karekare areas by Mr. Thompson up to this date, and also close to the point of release at the Dam.

According to a brief statement in the Annual Report of the Auckland Zoological Society for 1933, the liberation was made on 3rd February, 1932; and "subsequent reports have shown that the birds liberated have not disappeared. The caretaker at Huia Dam, Mr. K. Thompson, reports having seen bellbirds several times some few miles from the Dam.\* The reports indicate that even last winter the birds were obtaining a little nectar from bluegums. . ."

I am informed by Mr. A. T. Pycroft, one of the party which visited Little Barrier Island to obtain the birds, that a total of 15 were released.

LITERATURE.

Buller, W. L., 1873-A History of the Birds of New Zealand 1st Edition. 1875—On the Ornithology of New Zealand.—Trans. N.Z. Institute, 7, 197-211.

1877—On the Ornithology of New Zealand.—Trans. N.Z. Institute, 9, 327-337.

1878—On the Disappearance of the Korimako (Anthornis

melanura) from the North Island.—Trans. N.Z. Institute, 10, 209-211.

1888-A History of the Birds of New Zealand, 2nd Edition. 1895-Notes on the Ornithology of New Zealand. Trans. N.Z. Institute, 27, 104-126. 1905—Supplement to the Birds of New Zealand.

Hutton, F. W., 1869—Notes on the Birds of the Great Barrier Island.— Trans. N.Z. Institute, 1, 160-161.

Myers, J. G., 1923, a.—The Relation of Birds to Agriculture in New Zealand. III. The Larger Fruit and Insect-Eating Perching Birds

(Passeres).—N.Z. Journal of Agriculture, 27, 13-19.

Myers, J. G., 1923, b.—The Present Position of the Endemic Birds of New Zealand.—N.Z. Journal of Science and Technology, 6 (2), 65-99.

Reischek, A., 1887.—Notes on Ornithology.—Trans N.Z. Institute, 19, 184-188.

Stead, E. F., 1932.—The Life Histories of New Zealand Birds.

Turbott, E. G., 1948.—Effect of Goats on Great Island, Three Kings, with Descriptions of Vegetation Quadrats.—Records Auck. Inst. and Museum, 3, 253-272.

Turbott, E. G. and Buddle, G. A., 1948.—Birds of the Three Kings Islands.

—Records Auck. Inst. and Museum, 3, 319-336.

\* Mr. Thompson informs me that they were observed soon after release at a homestead in the Karekare Valley, approximately four miles from the Dam. This has also been mentioned to me by Mr. A. H. Hooper, who received information that they came about the house and took honey put out to feed bees. It was suggested that as the birds had been captured at the homestead at Little Barrier Island they were accustomed to being fed, and thus came down to the house. The attraction of the bellbirds to Mr. Gittos' homestead when they were first seen at Warkworth might also be noted. might also be noted.

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