

## BLACK-FRONTED DOTTEREL (*C. melanops*) NEAR PALMERSTON NORTH

By IAN G. ANDREW

On 25/8/55 I saw a Black-fronted Dotterel (*Charadrius melanops*) at Longburn, where it was feeding in a small paddock by the Manawatu River.

I watched the bird for fifty minutes at a distance of 22 yards, through a telescope of 15x, with a tree trunk as rest. There was bright sunshine coming from behind me. The dotterel moved within a radius of only a few yards and permitted views from all angles. I identified it almost immediately from memory of the description given by D. H. Brathwaite in the account of the first record of the species for New Zealand (*Notornis*, 6, p. 146). I took down notes on the spot, observing it from 10.30 a.m. to 11.20 a.m., and on returning home I found that the complete description and some of its actions tallied exactly with those given by Mr Brathwaite for the Napier bird. I also noted, when it raised its wings, that the underwing was white with black expanses on the wing tips. Sometimes the dotterel bobbed its head vigorously, but much of the time it remained still. At 11.30 a.m. it flew up and circled around, calling, and landed nearby but out of sight, and I did not follow. In flight it seemed to have a quicker downstroke of its wings than does a Banded Dotterel (*C. binctus*), with which I am familiar, and its call note was a sharp 'tink, tink' of a considerably higher pitch than that of a Banded Dotterel.

[Field notes and sketches made on the spot were submitted by I.G.A. and leave no doubt about the correctness of the identification.—Ed.]

## BULBULS IN AUCKLAND

By E. G. TURBOTT, Auckland Museum

The following are notes to date on the distribution of the red-vented bulbul, *Pycnonotus cafer* (Linn.), in the Auckland city area. The introduction of this species by some unknown means appears to have been made in about 1952, but it was not until 1954 that its establishment at several points in the suburbs of Auckland was recognised. Efforts under the control of the New Zealand Department of Agriculture are in progress to exterminate bulbuls at these points of establishment and, as the species is present in only small numbers, its future is still doubtful.

### General — Distribution and Field Characters

The red-vented bulbul (also termed 'common bulbul' in older works) is widely distributed in Asia — throughout India, from the extreme North-west, and the Himalayas, to southern India and Ceylon; and to the east as far as eastern Burma.\* It has been introduced into Fiji, where it is now common.

This species is also probably established in Melbourne, according to Lendon (1952), who says that: 'It has been stated on occasions that bulbuls have become established in the suburbs of Melbourne, and it has generally been assumed that the species in question is the red-whiskered bulbul (*Otocompsa emeria*), which is common around Sydney.' Lendon records a single observation of a red-vented bulbul, which he saw closely in a garden in Melbourne in October 1942, and the presence of a skin in the South

\*This is the range of *P. cafer* according to the recent revision by Deignan (1949), but other authors include under *P. cafer* the bulbuls with under tail-coverts yellowish and light grey, extending to China and Java (Delacour, 1943).

Australian Museum collected in Toorak, Victoria, in 1918 (Toorak is a suburb in Melbourne).\*

The red-whiskered bulbul, *Otocompsa emeria* (Linn.), also from India, differs from the present species in having white underparts and a white patch on the cheeks; there is a tuft of crimson on the face below the eye, as well as the crimson patch under the tail; and the crest is taller. As mentioned by Lendon, the red-whiskered bulbul is now common in Sydney and the surrounding suburbs.

*Field recognition.* The red-vented bulbul is about the same size as the song thrush, *Turdus ericetorum* Turt., or the starling, *Sturnus vulgaris* Linn., but it is slimmer in build and has a longer tail. The sexes are alike in plumage. The length is 8 to 8½ inches.

The *crimson patch under the tail* immediately distinguishes it, but this sometimes cannot be seen easily. Most informants have noticed the *triangular crest* ('like a Roman helmet'), and this is certainly an important field character if seen quickly, or at a distance. The *head and throat are glossy black*, the remainder of the body greyish brown, and the tail darker brown at the base, darkening until almost black towards the tip. In flight there is a *conspicuous white band across the rump*. The *tips of the tail feathers are white*, forming a narrow white band which is seen in flight, or upon close observation.

The bulbul is an active, restless bird, although observations made in Auckland suggest that long rest and preening periods are spent between bursts of activity. Its flight is generally strong and direct, but sometimes noisy and apparently laboured. There is some resemblance in all these habits to the bellbird, *Anthornis melanura* (Sparrm.), and the bulbul is, in fact, very similar in shape of bill (narrow and slightly curved) and in general proportions to this honeyeater.

The most common call note heard in Auckland has been a low, scratchy double croak, 'cark-cark', although the birds observed have also delivered single notes of more musical quality, but not a full song. Whistler (1949) describes its voice as 'cheerful and attractive', but it has 'only one or two call-notes and no song'.

Following press reports, informants described several other birds in mistake for the bulbul, and especially the Indian myna, *Acridotheres tristis* (Linn.), which is increasing in the Auckland city area. Fortunately the white wing-patches of the myna show prominently, even at some distance, and readily distinguish it from the bulbul in flight.

#### *Record of Appearance in Auckland and Control Measures*

The first record of the bulbul in Auckland was apparently made by Dr O. F. Lamb, although the identity of the bird was at that time uncertain. In early October, 1952, Dr Lamb informed me that he had seen a strange bird in the garden of his home at 99 Remuera Road. The suburb is about 2½ miles from the centre of the city, and gardens are mainly well established with plentiful trees and shrubs.

The bird was described in detail by Dr Lamb, who especially noted the crimson under tail-covers, and the black head with crest. One of these birds was heard and seen by Dr Lamb in a neighbouring garden a week later, and between these two occurrences Dr Lamb heard of one which had been seen at Stanley Bay (a North Shore suburb) by Miss Hodder, who noticed the crimson under tail-covers. I suggested that the birds were probably bulbuls. It seemed possible at this time that the birds might be stray cage-birds, although I could find no evidence that any bulbuls had recently been kept in captivity. This would, in any case, have been illegal.

I have since received the three reports following for the winter and spring of 1954, partly owing to publicity when bulbuls were found nesting at Stanley

\*This skin is definitely *P. cafer* (A. Lendon in litt.).

Bay in December 1954. On 5 August 1954 Mr F. Reekie got in touch with the Auckland Museum to say that two strange birds had been seen in his garden (Atanga Avenue, Mt Eden district – about two miles from Remuera and  $3\frac{1}{2}$  miles from the centre of the city) for some weeks feeding on the fruits of the wild lily *Caladium*. This was while I was on leave overseas from the Museum, and the birds were identified tentatively as bulbuls by Mr P. J. O'Brien of the Museum staff, who is familiar with the red-whiskered bulbul in Sydney. Mr O'Brien communicated with Messrs J. C. Davenport and R. B. Sibson, who visited Mr Reekie but did not see the birds. However, Mr Reekie identified them from books of coloured plates as red-vented, and not red-whiskered, bulbuls. Mr Reekie has since informed me that the birds were present from mid-July to the first week in September, 1954, but went away when the *Caladium* fruits were no longer available. They were seen feeding on the fruits at least twice a day, and disappeared between feeding into the trees. Mr Reekie described the call as a 'coarse croak' and said their flight was strong. Subsequently, one or more bulbuls were reported by Mr A. W. Jarman at Disraeli Street, Mt Eden – only about half a mile from Mr Reekie's property at Atanga Avenue. These were reported in January, 1955, and, as Mr Jarman had observed them at intervals since about September 1954, were probably the birds which had been visiting Mr Reekie's property.

In addition, Dr Lamb heard from Mrs J. M. Frater, 63 Seaview Road, Remuera, who saw one at this address between July and September, 1954, i.e. while Mr Reekie had been observing the birds regularly at Mt Eden.

Bulbuls were thus present in two localities in the city area (Mt Eden and Remuera), and on the North Shore (Stanley Bay), during the above period 1952-1954.

On 13 December 1954, Mrs A. G. Fisher described to me over the telephone two birds which she had seen several times at the edge of the Stanley Bay Park. These from her description were evidently red-vented bulbuls. I visited this spot on the same day and was taken by Mr S. R. Mainland, the park caretaker, to a single low *Pinus radiata* at the edge of the park where the birds had been observed. We shortly afterwards saw one come into the tree, and following the movements of the bird found the nest. It was situated about nine feet from the ground near the end of a branch, amongst branchlets and cones, but was clearly visible from the path beneath. The children's playground and paths adjacent to the tree are constantly used. The bird went on to the nest, which later proved to contain three eggs.

The collecting of these two birds at Stanley Bay, and the nest and eggs, provided the first specimens from Auckland since the bulbul was reported. Both birds collected were females in breeding condition; the eggs proved to be fresh, and except for the extremely remote possibility that they were laid by an unmated hen bird, it was to be expected that the males of the two pairs were still in the neighbourhood. A close watch was kept by Mr Mainland during the following period, but nothing further was reported of the birds from this area until 10 August 1955. On that date a schoolboy, W. Hornsby, saw a bulbul in the Stanley Bay district close to this area.

Further observation on these two bulbuls at Stanley Bay are of some interest. Both specimens were shot in the tree which contained the nest, two birds being seen in the tree together, and then the first being obtained when it returned alone shortly afterwards. The second bird was killed when it came to the tree some two hours later. The interest shown by the two females in the same tree is of some note, suggesting perhaps a degree of gregariousness even during the nesting season. (Whistler, 1949, notes that: 'Occasionally small parties . . . are met with, and numbers often collect together at a spot where some particular food is plentiful or for the purpose of roosting; but normally the bird cannot be described as gregarious'.) During my observations with Mr Mainland, the sitting bird had flown several times to trees some 100 yards away, and both birds flew together to the same

trees later. (Information on the food taken is given below.) It seems likely from the above observations that the males are more wary than the females.

It was at this stage that measures for control were instituted by the Departments of Agriculture and of Internal Affairs. The introduction or importation into New Zealand of this species is illegal under the Stock Amendment Act 1952, administered by the Department of Agriculture. A committee, under Mr J. C. Cooper (Agriculture Department) as convener, was set up to attempt to search for and destroy the birds which were established at various points. A joint statement to the press by the Ministers of Agriculture and of Internal Affairs was also made in order to point out the 'dangers of establishment of a bird of this nature and of the harm which persons can do in trying to evade the law regarding importations'. Measures for the destruction of the birds were the responsibility of the Department of Agriculture, but this has proved difficult in view of the suburban type of habitat in which the birds occur. It is difficult to trace the birds under such conditions, both on account of the frequently abundant cover and passage through private property.

Special press publicity and the screening of coloured slides of the bulbul in picture theatres was arranged, and the public were requested to report any bulbuls seen. It seems probable that, in view of the wide publicity, and the ease with which the bird is recognised, it is established at only the relatively few points from which it has been recorded to date.

The first report after the press account of the birds found at Stanley Bay was on the following day (14 December 1954). Mr R. Crawshaw, of 31 Balmoral Road (Mt Eden district), saw a bulbul on a telegraph wire near his house, noting its crest, but not the crimson under tail-coverts.

Early in January 1955, Mr A. W. Jarman, of Disraeli Street (also Mt Eden district), reported that bulbuls had been seen since September 1954, as mentioned above. On 15 January 1955 I visited Mr Jarman's property, which is adjacent to the Auckland City Council playing fields and reserve in Windmill Road. This includes a grove of tall pines and other trees, backing on to gardens planted in well-grown trees and shrubs. I saw one bulbul soon after I arrived, and later saw one which remained preening on a high branch for some time, apparently a different bird. On 17 January, in the same area, I again saw a bulbul which appeared close at hand after the delivery of the alarm note by a blackbird disturbed by a cat. On 18 January I visited the area with officers of the Department of Agriculture, and bulbuls were again seen both in the reserve and in adjacent gardens, including two seen close together by Mr J. C. Cooper. An immature male was obtained in this area on 9 April 1955 (No. AV. 1337.7), and an adult female on 17 April 1955 (No. AV. 1337.8). Previously (c. 1 March) another adult had been shot, but the specimen was not retained. Observations in April suggested that there were still at least two (probably an adult and an immature) in this area, but nothing has been seen of them since the last specimen was obtained (17 April).

Further information was received shortly after Mr Jarman's, when on 20 January 1955 bulbuls were reported on Mr R. H. Exton's property, at 66 Seaview Road, Remuera. (This is close to the point where Mrs Frater saw one in July-September 1954.) On 20 January I watched an adult and young bird, which begged for food from the parent. Mr and Mrs Exton had seen them several times since August 1954 and the birds had evidently moved about at least for a short distance in the neighbourhood. Officers of the Department of Agriculture were able to destroy the adult male and female, and the young, here on 21 January (Nos. AV. 1337.4-6).

No further reports were received until 11 May 1955, when Mrs I. Dickson, of 3 Clifton Road, Takapuna, informed me by telephone that four or five adult bulbuls had been seen recently in the garden, and gave a detailed description. This locality is about three miles from the centre of the city and two miles from the suburb of Stanley Bay. It is at the edge of a large

area of cliff vegetation and extensive properties planted in trees and shrubs, and faces Rangitoto Channel and the harbour entrance. On 15 May I failed to see any bulbuls on a visit to the area, but one was destroyed on the nearby property of Mr S. Reid by an officer of the Department of Agriculture on 24 June 1955. This (No. AV. 1337.9) was an adult male. Up to three bulbuls have since been seen at fairly regular intervals in Mrs Dickson's garden. Mrs Dickson also mentioned that, several weeks before the first report appeared of the Stanley Bay occurrence (13 December 1954) she saw about twelve strange birds together in a tree close to the cliff edge, and noticed especially their noisy, harsh (or 'parrot-like') calls. Since observing bulbuls more closely she is sure this was the same call.

Amongst a number of reports of birds thought to be bulbuls, soon after the press account of the birds at Stanley Bay, were two from (a) Avondale (about  $5\frac{1}{2}$  miles from the centre of the city); and (b) Grafton Road (central area). Both reports mentioned the crest but not the crimson under tail-coverts. They have not been substantiated by any further reports, and can only be regarded as doubtful records.

In addition, there have been more recent sight records which are considered reliable from Birkenhead and Northcote, closely adjacent suburbs on the North Shore, some two miles from Stanley Bay and three miles from Takapuna. These reports are still under investigation.

Briefly summarising the above, it seems possible that only two males remain in the Stanley Bay district, and that in the Remuera district the birds have been eliminated. However, reports as early as 1952 suggest that breeding could have occurred and thus produced a breeding stock in both these districts. In the Mt Eden district one young and one adult probably remain, while there is an unknown population, almost certainly capable of breeding, at Takapuna. There is probably a centre (with a population of unknown size) at Birkenhead-Northcote. Little is known of the extent to which the birds have wandered afield from these centres, but the reports suggest that they have remained in the Stanley Bay and Remuera areas for several years. It may be added that according to Whistler (1949) it is a 'strictly resident' species.

### *Origin*

The most likely means by which the birds reached Auckland seems to have been a liberation of cage-birds. Since permission has not been granted to import this species or keep it in captivity since as early as 1934 (information from the Department of Internal Affairs), the release was probably made upon arrival of the birds in port. This species is apparently a popular cage-bird in Eastern ports, although as far as I can discover it is not kept in captivity, or trapped, in Fiji. Various species of bulbul travel to New Zealand as pets in overseas ships from time to time, but in this case the port authorities can make provision for the birds to be retained under bond while in port.

It seems possible that the birds which appeared in Auckland were brought from some eastern port, apparently in 1952. They could well have been released in the harbour before the Customs inspection was made at the port.

It is thus of some interest that, shortly after the description of the birds at Stanley Bay appeared in the press, I heard of an earlier liberation of the red-vented bulbul in Auckland. However, it seems extremely unlikely (in view of the lack of any subsequent records over a long period) that it was established on this occasion, and this incident is of interest mainly as suggesting the means by which it has probably now reached New Zealand. An informant said that in 1934 some six bulbuls were brought to Auckland in a ship calling at Abadan, in the Persian Gulf. Members of the crew purchased the birds from Arab bird dealers, but on arrival in Auckland were informed by port officials that the birds must be destroyed. However, they were taken ashore at Devonport (on the North Shore), but shortly afterwards were accidentally released from their cages. The identity of the birds was checked by my informant, who recognised Museum specimens imme-

diately as the same kind as those brought from Abadan. (As the range of this species does not extend to Persia and Iraq, the birds must have been transferred to Abadan as cage-birds.)

The Department of Agriculture has recently taken measures to make a special check of vessels arriving at Auckland from Asiatic ports and from Australia and Fiji, and has asked shipping companies to co-operate in preventing 'illegal importations of birds and other animals'.

There is also some slightly possibility that the birds could have been transported by a tropical cyclone from Fiji. I am thus grateful to Mr R. Moir, of the Auckland weather office, for the information that during 1952 there were no exceptionally high winds in this area likely to have carried the birds to New Zealand. Mr Moir has also informed me that tropical cyclones which reach New Zealand generally travel farther to the westward through New Caledonia and Norfolk Island, and would thus be unlikely to bring birds from Fiji to New Zealand.

### Food

The bulbul is a bird of mixed diet, and as in the case of other such species has tended to be regarded either as beneficial on the whole, or as an unqualified pest. There seems to be little doubt that it is capable of doing serious harm to fruit and vegetable crops, and for this reason special measures were taken to prevent its entry into New Zealand.

In India, according to Whistler (1949), it is 'apt to be destructive in the garden, damaging fruit and flowers and spoiling many a promising row of peas; though the unseen good that he does in the way of keeping down insect pests probably outweighs this more obvious damage'. An early opinion from Fiji stated that it was 'largely insectivorous, and eats larvae of many varieties' (Wood and Wetmore, 1925-26). However, Turbet (1938-39) says that in Fiji its 'harmfulness to ripe fruit weighs the balance against it'.

The stomachs of the birds obtained to date in Auckland have been sent for examination to Miss Ruth Mason, of the Botany Division, D.S.I.R., and Mr L. Gurr, of the Entomological Research Station, Cawthron Institute. I am indebted to Miss Mason and Mr Gurr for the following particularly detailed and helpful report. The material includes both fruit and insects and is of interest in confirming the kind of food taken. The amount of material for analysis is much too small for the importance of different foods to be assessed.

- (1) AV. 1337.1. Stanley Bay, 13/12/54 (adult female - sitting on the nest).
  - (a) Remains of seven native burrowing bees (*Paracolletes* sp.).
  - (b) Remains of four European wasps (*Vespula germanica*).
  - (c) Fragments of the skin and flesh of a soft fruit, probably some kind of plum.

Note. The bees burrow in clay banks, and were probably near a wasps' nest, so that they would be captured together.
- (2) AV. 1337.3. Stanley Bay, 13/12/54 (adult female). The stomach of this specimen was empty.
- (3) AV. 1337.4. Remuera, 21/1/55 (adult male).
  - (a) Seed and skin of fruit of *Solanum auriculatum*. (This grows into a moderately large tree, and is common on waste areas in Auckland.)
  - (b) Fragments of fruit of *Ficus* sp. The species is uncertain as there was so little material - not *Ficus macrophylla* (Moreton Bay fig).
  - (c) Insect fragments.
- (4) A.V. 1337.5. Remuera, 21/1/55 (adult female). Seed and skin of fruit of *Solanum auriculatum*.
- (5) A.V. 1337.6. Remuera, 21/1/55 (immature female). Stomach empty.
- (6) AV. 1337.7. Mt Eden, 9/4/55 (immature male). Unidentified seeds.
- (7) AV. 1337.8. Mt Eden, 17/4/55 (adult female). Skin of apple. Also a little fragmentary material.

(8) AV. 1337.9. Takapuna, 24/6/55 (adult male). Two fruits of *Eleagnus* sp. in stomach and intestine, and a few unidentified fragments.

A few field observations have also been made relating to feeding habits. As mentioned above, in 1954 Mr F. Reekie saw two bulbuls feeding regularly on *Caladium* fruits at Mt Eden from July to September. I observed a bulbul which chased and apparently caught a large cicada (*Melampsalta cingulata*) at Windmill Road reserve in January 1955. In March 1955 information was received from Constable A. W. Reid, who has carefully observed the birds, that one had been seen eating grapes in a garden beside the reserve.

The following notes on the feeding habits of this species in Fiji are also of interest. According to Mr E. F. Dodson, bulbuls were seen regularly at the Meteorological Office, Suva, in 1943, obtaining insects from gauze screens placed over the windows. Large numbers of insects were attracted to the screens by the light and the birds were seen only at dawn, presumably while the insects were still flying actively about the screens. A schoolboy, M. W. Pietriche, has also observed this species in Fiji; it is common, and has been known to enter houses to take fruit off a table; it will also fight with the Indian myna, and bulbuls are frequently seen being chased by mynas.

#### *Identification and Plumage Changes*

The Auckland specimens have chocolate brown ear-coverts and wholly black head, hind neck and throat. They evidently thus belong to the East Himalayan subspecies, *P. c. pygaeus* (Hodgson, 1844) (= *bengalensis* Blyth). Whistler (1949) states that this subspecies occurs in the eastern Himalayas from Nepal to Assam, up to about 4500 feet. It also has a wide distribution in the plains: 'through the Eastern United Provinces, Northern Bihar, Eastern Bengal, up to North-west Cachar and Eastern Assam'. According to Mayr (1945) and Deignan (1949) the red-vented bulbul introduced into Fiji is *pygaeus* (= *bengalensis*).

The following notes on the specimens obtained to date give some indication of seasonal plumage changes. Two immature specimens are included in the series.

AV. 1337.1. Adult female; Stanley Bay; 13 December 1954.

AV. 1337.3. " " " " " " " "

Both of the above specimens are in fairly good plumage, but the wings and back are brownish and the feathers worn; the white tip of the tail is much worn.

AV. 1337.4. Adult male; Remuera; 21 January 1954.

AV. 1337.5. Adult female; " " " " "

Both specimens are faded, and the feathers much worn including the white rump feathers; only a trace of white at tips of tail feathers owing to wear. However, moult has already begun in the adult female (A.V. 1337.5), which has two new tail quills of almost full length.

The active condition of the gonads suggested that this pair, which were accompanied by a well-grown young, would have nested for a second time.

In these adult specimens, obtained in December and January, there is little or no wavy or scaled appearance on the back, owing to abrasion; but some of the black feathers have whitish tips on the breast.

AV. 1337.6. Immature female; Remuera; 21 January 1955.

This bird had probably not long left the nest. The head and throat are dark brown; tail feathers dark brown with brownish-buff tips; wing coverts and secondaries edged with brownish-buff. The back is brown, underparts below the dark throat greyish-brown, and the rump greyish-white. The under-tail coverts are a faintly pinkish buff. Length of bill (culmen), 13mm; wing, 87mm.

AV. 1337.7. Immature male; Mt Eden; 9 April 1955.

A good deal more advanced than No. AV. 1337.6, with new feathers appearing

on the crown, and the throat and breast; those on the crown are dark brown, but on throat and breast the feathers are jet black like the adult; white tips on breast. New feathers with crescentic white tips on wing coverts, but not on mantle. Secondaries still edged with brownish-buff; primaries growing. Tail longer than in AV. 1337.6, but with faint brownish-buff tips. Nearly all the white rump feathers have been moulted. The under tail-coverts are buff with a strong tinge of pinkish.

AV. 1337.8. *Adult female; Mt Eden; 17 April 1955.*

A bird in full moult, with sprouting feathers on almost all parts of the body, except the rump on which the white feathers are fully developed. Tail quills of uneven length, only two of full length. Crimson under tail-coverts also growing. Crown and throat almost bare, with sprouting feathers. The gonads were inactive.

AV. 1337.9. *Adult male; Takapuna; 24 June 1955.*

Moult is complete in this specimen, which is in fine fresh plumage. There are whitish crescents on the feathers of the wing coverts and upper back, and on the black feathers of the breast, 'giving a scaled appearance' (Whistler).

In this specimen abdominal fat was particularly well developed, but only a small amount was present in the previous specimens. Gonads inactive.

*Measurements* (in millimetres). Two adult males: bill 19.4, 19.5; wing 101, 98; tail 93, 94; tarsus 24, 24. Four adult females: bill 18.2, 18.3, 17.3, 18.0; wing 94, 95, 94, 92; tail 87, 84, 84, 87; tarsus 22, 24, 24, 24.

#### *Nest and Eggs*

The nest and eggs discovered at Stanley Bay on 13 December 1954 (No. AV. 1337.2) may also be described briefly. The nest is compact and relatively shallow, with a cup only  $1\frac{1}{4}$  inches deep. It sits firmly, supported by side branchlets, on the foundation provided by the pine branch (the branch is of c.  $1\frac{1}{2}$  inches diameter). It is lightly constructed, consisting mainly of coiled pliant fibres and twigs, with a scanty lining of fine fibres. On the outside rim of the nest there is also a sprinkling of white strands, apparently obtained from frayed cloth or fabric, together with some spiders' web. The nest is attached, but only very lightly, by means of this material to each of the three supporting side branchlets. This has apparently been bound round the branchlets while wet, as the material is tightly moulded on each branchlet.

There were three eggs in the clutch. They are handsomely marked: ground-colour pinkish, closely marked all over with spots and irregular blotches of reddish brown, and underlying pale purplish-brown shell-marks; the markings are thickest, tending to form a zone, round the broadest circumference. Shape a rather elongated ovoid, measuring 23.2 x 15.8, 23.5 x 16.0, 23.6 x 15.7mm.

#### *Acknowledgements*

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| R. K. Dell, Lower Hutt             | D. J. Shaw, Clevedon                |
| Dunedin Naturalists' Field Club    | R. B. Sibson, Auckland              |
| D. P. Eyre, Otahuhu                | B. Sladden, Tauranga                |
| C. A. Fleming, Wellington          | O. A. B. Smith, Mrs, Winton         |
| R. E. W. Fordham, Ngongotaha       | P. A. A. Stein, Auckland            |
| D. Galey, Mangakino                | S. W. Sutherland, Kawhia            |
| M. B. Gill, Auckland               | C. Tattershall, Rotorua             |
| A. J. Goodwin, Miss, Clevedon      | E. F. Townsend, Ardmore             |
| A. G. Gorbey, Wellsford            | R. H. Traill, Stewart Island        |
| A. R. Harris, Dunedin              | E. G. Turbott, Auckland             |
| B. D. Heather, Wellington          | D. A. Urquhart, Karaka              |
| A. J. Hodgkin, Moa Flat, Heriot    | L. E. Walker, Mrs, Dunedin          |
| M. Hodgkins, Tauranga              | M. A. Waller, South Kaipara         |
| R. M. Jenkins, Mrs, Dunedin        | H. G. Warburton, Auckland           |
| King's College Bird Club, Otahuhu  | J. W. Waters, Rotorua               |
| N. Macdonald, Miss, Howick         | J. Watt, Dunedin                    |
| D. Merton, Gisborne                | W. A. Williamson, Dunedin           |
|                                    | K. J. Wenyss-Mitchell, Christchurch |
- N.I. KIWI (*Apteryx australis mantelli*). 31/1/55. 1 calling near Whangarei motor camp. (R.B.S.) Kawhia, scenic reserve at north end of harbour, one heard. (R. H. Meredith). W.S.S.
- S.I. KIWI (*Apteryx a. australis*). Dusky Sound. Aug. '54. 5 seen by T. Leask. (O.S.)
- LITTLE SPOTTED KIWI (*Apteryx oweni*). Tauranga Bay, Westport. 15/1/55. One captured alive and released by bushman. (T.J.P.)



Photo by courtesy *The New Zealand Herald*.

PLATE IV: Red-vented Bulbul (*Pycnonotus cafer*) and nest from Stanley Bay, Auckland (Auckland Museum).