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BANDED DOTTEREL AT THE AUCKLAND ISLANDS: DESCRIPTION OF A NEW SUB-SPECIES

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The status of Banded Dotterels at the Auckland Islands was not defined until the period of occupation by coastwatcher units 1941-45. McCormick (*in* Rees, 1847: 149) referred to sight observations of "a solitary ring-plover" at Port Ross, in November 1840. Reischek (1888: 383) listed banded dotterel, without further comment, on Adams Island on 26 January 1888.

That the species eluded further notice for so long is not surprising, for it is not abundant and has a restricted pattern of seasonal movement. In 1941 C. Young, radio operator at Ranui Cove, made a sight record of a "bird with a double-banded breast" on the tableland above the southern shore of Port Ross, but the first positive identification was by W. H. Dawbin in the same area, but further inland, on 12 September 1943. Shortly after, on 30 September, E. F. Doley and L. H. Pollock met with an agitated pair of birds defending either territory or a nest on the high tops between the head of Chambres Inlet and the west coast. Finally, on 4 October, R. W. Balham and Doley found a nest in the same area, possibly the same pair. The nest contained 3 eggs, on ground covered patchily but quite heavily with snow. Both birds were standing within a few inches of the nest and remained there during the brief inspection. Meanwhile the party stationed at Carnley Harbour had independently found birds on the high tops of Adams Island, where they were identified by W. H. Dawbin, and two were collected on 11 October, by A. L. Paine.

Specimens from the Port Ross area were not collected until it was found that in mid- to late summer small flocks and odd pairs began to appear on tidal shoreline around Enderby Island. These proved to be post-breeding adults and some juveniles. Further specimens

* The material for this issue of *Notornis* was prepared by the previous editor.

were also collected in 1944 by E. G. Turbott, including a pre-breeding bird from Adams Island in August. These, together with useful distributional notes by H. T. Wenham in 1945 concluded the field studies undertaken by coastwatching personnel 1941-45.

The field work of four or five subsequent scientific expeditions between 1954 and 1976 provided further specimens (as listed in Table 1) and sight records which confirmed studies based on the earlier material, without significant modification. These establish that a form of Banded Dotterel, morphologically distinguishable from *Charadrius bicinctus* as found on the New Zealand main islands and Chatham Islands, inhabits the Auckland Islands where it is resident, migrating only altitudinally from high tops at 600 metres or more, where it nests, to tidal coastline in late summer and autumn.

The existence and general characteristics of this distinctive bird have already been recorded, by Oliver (1955) and in most subsequent publications about Auckland Island birds. An early draft of the present paper, and three specimen skins were available to the late Dr Oliver, who published (*loc. cit.*: 262) a substantially full diagnosis. His inclusion of Campbell Island in the range of the proposed subspecies, however, requires confirmation, as there is insufficient evidence to identify with the Auckland Island form the two Banded Dotterels seen by L. H. Pollock at Campbell Island in March 1944 (Bailey & Sorensen 1962: 255). It remains for the present paper to summarise, with some additional information, and to propose, belatedly, a sub-specific name.

Charadrius bicinctus exilis SUBSP. NOV.

Adult plumage generally similar to *C. bicinctus bicinctus*, but upper parts uniformly darker and warmer shade of brown, approximately to brownish olive (shade 29 in Smithe 1975) compared with olive brown (28 in Smithe) in adult *bicinctus bicinctus*. A few dark feathers giving a streaky pattern on the front of the thigh are present in all specimens of *exilis*, these occurring only rarely, and then more obscurely in typical *bicinctus*. Seasonal breeding plumage pattern is as in the typical subspecies, but more transient, being assumed slowly and lost rapidly. Auckland Island birds are larger in all dimensions; not significantly so in length of wing and bill, but especially so in the stout tarsus and toes. Selected as TYPE is N.M. No. 13071 (National Museum of N.Z.) adult male, Adams Island, Auckland Islands, 28 August 1944, collected by E. G. Turbott. Its measurements, in dried skin, are — wing 132mm, tail 60, tarsus 35, toe 27.5, bill 19 (5mm deep at base).

The type specimen is the skin on which Oliver's (1955) description is based, the insignificant differences in dimensions given being no doubt due to variation in measuring technique. The bird is not, however, "immature," but an adult male in full breeding condition, though not quite out of normal adult winter plumage. Of the complete series of fifteen skins now available (see Table 1) none

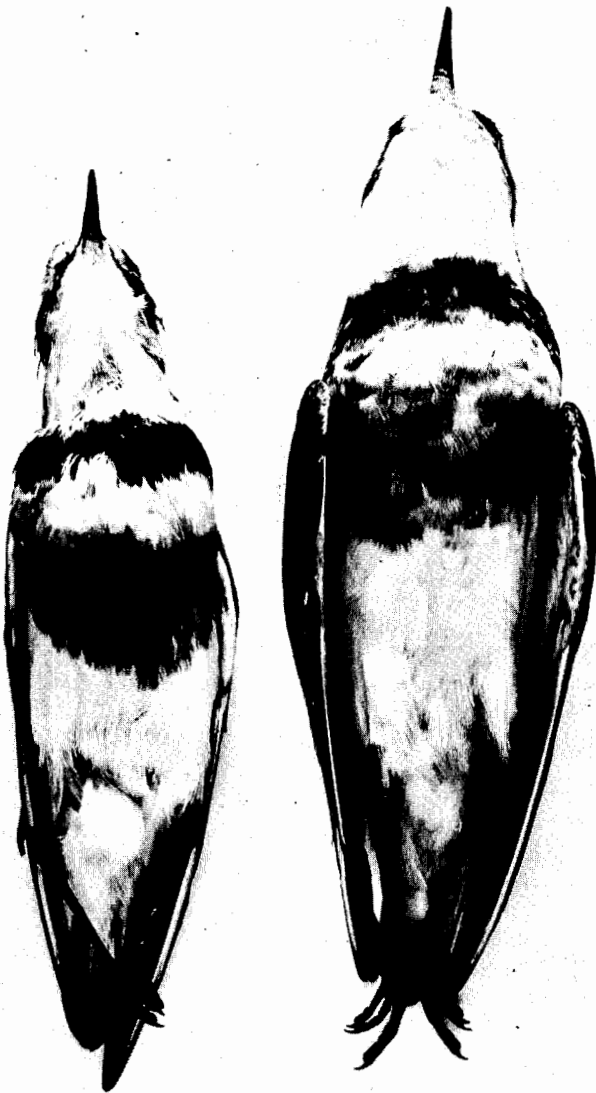


FIGURE 1 — Comparison of mainland and Auckland Island specimens.
Left: ♂ Waitaha River, Westland (Nat. Mus. N.Z.) July.
Right: ♂ Adams Island (type) August.

Photo: National Museum of N.Z.

TABLE 1 — BANDED DOTTEREL SPECIMENS COLLECTED AT AUCKLAND ISLANDS

No.	Sex	Locality	Date	Coll.	Wing	Tail	Tarsus	Toe	Culmen
C.M.21986	♀(?)	Enderby		R.A.F.	126	65	33	27.5	16
C.M.21287	♂(?)	"		"	132	61	33	28	19
N.M.13072	♂	"	19.4.44	E.G.T.	131	60	34	27.5	17.6
N.M.13073	♀	"	"	"	132	61	36	29.5	17.6
N.M.13074	♀	"	"	"	132	62	33.2	26	18.5
N.M.13075	♀	"	"	"	124	59	32	26	16
N.M.13071	♂	Adams	28.8.44	"	132	60	35	27.5	19
N.M. 7946	-	Enderby	8.3.54	R.K.D.	1305	58.5	33.5	26	16.6
N.M.12781	-	"	"	"	117*	60	32.2	26	16.5
N.M.10066	♂	"	17.1.63	B.D.B.	133.2	58	35	27.5	17
N.M.10067	♀	"	"	"	133.5	61.5	36	28	18
N.M.17521	♂	"	25.2.73	"	130	58	37	27	19
N.M.17522	♂ juv.	"	"	"	130	59	34	27	17.5
N.M.19288	♂	"	3.2.76	J.A.B.	134.5	60.5	35.5	28.5	18.5
N.M.19289	♂	"	"	"	133	63	37	29	19

* in moult

R.A.F.	R.A. Falla
E.G.T.	E.G. Turbott
R.K.D.	R.K. Dell
B.D.B.	B.D. Bell
J.A.B.	J.A. Bartle

have the unbroken uniformly coloured bands of normal mainland adult *bicinctus*. Two December adults have the same peppering of grey in the black of the upper band, and the same spotting of white in the chestnut of the lower, as has the August bird (the type specimen). The only difference is that the former are commencing a moult change from nuptial to basic, and the latter is at the same stage of the reverse process. At present the only evidence that Auckland Island birds may attain full nuptial bands is a photograph taken in blizzard conditions of the adult pair at their montane nest on 4 October 1943. Though unfortunately out of focus the full frontal view of both birds shows well defined banding on the presumed male (Fig. 2) but less distinct in the female. Neither birds nor eggs were disturbed, and no further nests were found. The accompanying sketches based on the photographs are two positions of the same bird.

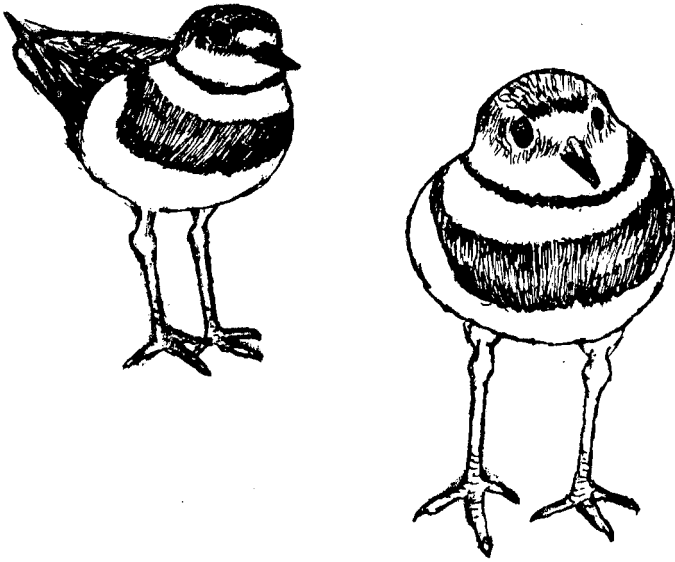


FIGURE 2 — Sketches (of same ♂ bird) based on photograph by R. W. Balham.

Though the specimens selected for dimensions of mainland *C. bicinctus* are all but one from the Auckland district (Manukau Harbour), others examined from the South Island, and the extended dispersal range including Australia, Lord Howe and Norfolk Islands, New Hebrides, and the Chathams, all fall within the size range given in Table 2. The few available specimens of Chatham Island breeding birds, in fact, are slightly below it in bill and wing length, and their inclusion would have lowered the average.

The Auckland Island form is significantly larger in body size than the conventional standard measurements indicate and it would have been helpful to record some comparative weights. For mainland specimens there are some records, giving a maximum of 70 grams as the weight of a fat adult in early stage of moult, but I can find no record for a comparable Auckland Island bird. The accompanying photograph (Fig. 1) of study skins gives some idea of the difference.

Little more can be recorded about the hilltop distribution. H. T. Wenham, in 1945, while working with survey parties, has some records. On 20 February he found a group of three near the summit of Mt Dick, Adams Island. Later two birds flew overhead, calling, and he saw two among scattered rocks. On 24 February on the tops near Little Dome, Adams Island, he saw eight birds altogether, in groups of 3, 2, 2 and 1, and heard further calling. Again, during a

long day on the tops of Adams on 8 March above Fletcher Point he saw only two Banded Dotterel. His last record, on 27 March, was on the main Auckland Island on a rocky plateau behind "Mt Schnackenberg" (= Mt Durville of later maps), where he disturbed 5 birds, together in a group. They took off, and flew strongly out of sight.

The altitudes of all these records are consistently among the higher hills of the Auckland Islands. There are thus probably more breeding pairs in the southern part, including Adams Island, but there is no evidence of lack of breeding success of pairs nesting on the main island, at least as far north as the region of the 'Bivouac' rock above the head of Chambres Inlet.

TABLE 2 — COMPARATIVE MEASUREMENTS OF
AUCKLAND ISLAND AND MAINLAND SPECIMENS

Auckland Islands (14 specimens)

<u>Males (7)</u>	<u>Females (5)</u>
Wing: 130-134.5 (131.9)	124-133.5 (129.6)
Tail: 58- 63 (60)	59- 65 (61.7)
Tarsus: 33- 37 (34.8)	32- 36 (34)
Mid-toe: 27- 28.5 (27.6)	26- 29.5 (27.4)
Culmen: 17- 19 (18.2)	16- 18.5 (17.2)

New Zealand, North Island (10 specimens)

<u>Males (5)</u>	<u>Females (5)</u>
Wing: 122-135 (128.5)	125-129 (127)
Tail: 50- 59 (54.6)	50- 60 (54.4)
Tarsus: 29- 32 (30.5)	28- 31 (30)
Toe: 22- 23.5 (22.7)	21- 22.5 (22)
Culmen: 17- 19 (17.7)	15- 18.5 (16.8)

Numerous observations of Banded Dotterel on tidal areas around Port Ross were made by several observers throughout 1943-44, most of them on the north coast of Enderby where exposed low rock platforms occur, as at Derry Castle Reef. This area is frequented from October to March by small flocks of migrant Arctic waders of

several species, but mainly Turnstone, and the flocks of Banded Dotterel associate with them. Thus far, observers have found them restless and hard to approach, but this may be a result of the intermittent shooting of rabbits in which short-term visitors indulge, as well as the early zeal for collecting a study series of a "new" bird. There is now an adequate series of these moulting summer specimens for study purposes, and it should be possible in future to observe them with less disturbance. There is no evidence that they are subject to any adverse predation pressures either on nesting grounds or coastal habitat. It is more likely that their low numbers reflect the limitations of the rugged terrain on which they are compelled to nest, well beyond the habitual hunting range of skuas, falcons or feral cats on the main island, and of the first two on Adams. Adams Island birds may spend more time on the tops than those further north. There are few if any shoreline records from Carnley Harbour, which has very little of either exposed tidal platforms or of beaches suitable. On the other hand the flocks met with on the north coast of Enderby Island may derive from all the upland breeders, including those from Adams Island. If this is so the total population of this sedentary race could be fewer than 100. J. A. Bartle (*pers. comm.*) judged from the numbers seen both inland and on the shore at Enderby Island on 8 and 9 December 1976, that the total population on that island at that time was probably less than 50. The more compact flocks seen on Enderby Island in February during several earlier expeditions have also been of less than 50 birds. Soper (1976) however, gave a late February 1973 count as 60. Summarising the field observations made during the Auckland Islands Expedition 1972-73, covering the months of December, January and February, Bell (1975: 139) added records from Rose and Ewing Islands, and reported a few groups on the upper slopes of Adams Island, with none recorded on the main island. He concluded that "from numbers seen it appears this southern race totals only 100-200 birds," which may on available evidence, be considered a generous estimate.

The occurrence of two closely related forms, not overlapping in range, and differing mainly in body size and intensity of plumage pattern is now established for the New Zealand region. It seems to have a parallel in South America where *C. falklandicus*, a species remarkably similar to *C. bicinctus*, is replaced at higher altitudes in the Andes by closely related *C. alticola*; and also in Southern Africa where the robust insular *C. sanctaehelenae* is clearly derived from the mainland *C. pecuarius*. The last two are considered by Bock (1958: 71) to be conspecific.

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granting of facilities at the National Museum of N.Z., and some problems of illustrations overcome with the help of Mr J. A. Bartle of the Museum Staff, and of Mr Martin Cawthorn of the Fisheries Research Division, Ministry of Agriculture and Fisheries.

LITERATURE CITED

- BAILEY, A. M.; SORENSEN, J. H. 1962. Subantarctic Campbell Island. Proc. Denver Mus. Nat. Hist. 10: 1-305, illus.
- BELL, B. D. 1975. Report on the birds of the Auckland Islands Expedition 1972-73. Pp. 136-142 in: YALDWYN, J. C. (ed.). Preliminary Results of the Auckland Islands Expedition 1972-1973. From reports of participants to the Director-General of Lands. 447 pp., illus. Wellington: Department of Lands and Survey (Reserves Series No. 1975/3).
- BOCK, W. J. 1958. A generic review of the Plovers (Charadriinae, Aves). Bull. Mus. Comp. Zool. Harvard 118 (2): 27-97, 6 figs.
- OLIVER, W. R. B. 1955. New Zealand Birds. 2nd ed. Wellington: A. H. & A. W. Reed.
- REISCHEK, A. 1889. Notes on the islands to the south of N.Z. Trans. Proc. N.Z. Inst. 21: 378-389.
- ROSS, J. C. 1847. A Voyage of Discovery and Research in the Southern and Antarctic Regions during the years 1839-43. Vol. 1. Pp. lii + 1-366, illus. London: John Murray.
- SMITHE, F. B. 1975. Naturalist's Color Guide. New York: American Museum of Natural History.
- SOPER, M. F. 1976. New Zealand Birds (2nd revised ed.). Wellington: Christchurch, &c.: Whitcombe & Tombs Ltd.

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SHORT NOTE

ALBINO OYSTERCATCHER ON OTAGO PENINSULA

Returning from observing the Royal Albatross at Taiaroa Head on 19 December 1977, I noticed a white bird on a beach between Portobello and Broad Bay. My first impulse was that it might be a Little Egret, but as we drew closer it began to show the long straight orange bill suggestive of an oystercatcher.

By close examination through binoculars, I found that it was an albino oystercatcher in which even the pigment of the bill had been diluted. The whole of the plumage was white, although I could not ascertain whether the eyes were pigmented or not. There were other normally-coloured oystercatchers not far away.

Oliver (1955, *N.Z. Birds*, 2nd ed., pp. 246, 248) has noted several records of albino oystercatchers in New Zealand as follows: South Island Pied — one on several occasions at Etrick in Otago, another in the Firth of Thames in 1942, an albino almost pure white except for the wings at the mouth of the Waimakariri River, and a white bird with a light fawn head near the entrance to Otago Harbour; North Island Pied — one recorded at Opotiki by Buller.

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