OCCURRENCE OF GREAT KNOT IN NEW ZEALAND

By IAN G. ANDREW
Massey University, Palmerston North

The Great Knot *(Calidris tenuirostris)* is listed in the Field Guide (Falla, Sibson and Turbott, 1966) as one of the species which is likely to occur, but has " not yet been satisfactorily identified in New Zealand." I can now record a sighting of three Great Knots at Manawatu Estuary (Wellington west coast) on 15th October, 1967. They were seen in the company of twelve Eastern Knots *(C. canutus)* (hereinafter referred to as Lesser Knot). Miss Sybil Quin, who was with me, was able to confirm the characters noted in the description below.

Sunday, 15th October, was selected by Wanganui and Manawatu OSNZ members as the date for a census of the Wellington west coast estuaries. At Manawatu Estuary, a party of eleven people arrived on the north side at 7 a.m., but a strong northwesterly, with overcast skies and scattered heavy showers, made conditions difficult for both birds and observers, and only four of us reached the south side to make the high-tide count, scheduled for 8 a.m. Those of us who reached the south side of the estuary saw all the waders that were seen, but, although we spent over an hour covering the area, the counts of Godwit, Golden Plover and Oystercatchers were all somewhat below the usual counts for the time of year, and no smaller waders could be found. So, while my companions returned to the boat to escape the increasingly cold wind, I waded out closer to the Godwit flock to make a more careful search for strangers.

With telescope rested on a log, I quickly spotted a squat, greyish bird, a little larger in body than a Golden Plover, which I tentatively identified as a Great Knot. I had watched this species in Australia ten months previously, and was fairly satisfied with the identification after a few minutes of observation, during which the bird ran about, fed, and twice flew a short distance. The third time it flew, I lost sight of it on the receding tide. The biting cold (and my stiff, shaking hands) precluded further observations, so I rejoined my companions for the return boat journey — a slow, wet trip, into a head wind, but assisted by a towline, so we reached the shore without mishap except for a fishhook in the hand of our oarsman.

At this stage, eight of the party had to return home. But three of us stayed at the estuary to have another look for the Great Knot, so, after a brief rest, we set off, prepared if necessary to make the long journey back to the south side by car. The tide was well on its way out, and birds were beginning to return to the north side of the estuary. Scanning with the telescope set at 20 x magnification, I picked out a group of smallish birds about 400 yards away, which we had missed at the high-tide roost. They were Knots, and the white rump seen on one of them as it flew told me that our search had ended. We drove to the nearest possible

point of approach, and, with the weather now much brighter, making viewing conditions most favourable, Sybil and I crawled up to a distance of 55 yards from the group, with the sun behind us. There were 12 Lesser Knots and 3 Great Knots in the group, and already at 80 yards we were able to confirm, with binoculars, many of the points of distinction listed below. All fifteen birds stayed in one group, somewhat separate from the Godwits that were also now feeding on the northern mudflat, but the Great Knots tended to stick together as a threesome within the group. We were able to observe the birds and make notes for 20 minutes before a Black-backed Gull, yelling his annoyance at us, caused them to take flight. Unfortunately, I did not secure a photograph, since I considered it more important to take an accurate field description with the birds still in view, than to test the somewhat limited capabilities of my equipment at a range of 55 yards.

Shortly afterwards, we again spotted the Knots (both species), across 200 yards of mudflat, as well as a group of six Wrybills which we had not seen before. The Knots being still less accessible to photography than they had been before, we decided to leave them for the day. Five days later, on the morning of 20th October, I returned to the estuary with Michael Bysouth, hoping to try out my long telephoto lens; but we were too late — the birds had flown, and only eleven Lesser Knots remained. The Great Knots were not seen again, and were evidently just passing through on the last leg of their southward migration.

Our records over the years suggest a considerable passage of Knots at Manawatu Estuary about October, and the same was evident this year, although more Knots stayed through the summer than has been usual in the past. Of the 11 Knots present on 20/10/67, one had a broken leg. This bird was not present on 15th (unless its leg had not yet been broken then), and it was not seen on 29th, when 10 Knots were present. It is possible that a different group of Knots was seen on each date. Knots passing through Manawatu Estuary are probably heading for some South Island summer quarters, possibly Farewell Spit, the area of greatest concentration of Knots in New Zealand, and the three Great Knots may well have spent the rest of the summer there.

FIELD DESCRIPTION

The following description of the Great Knots at Manawatu Estuary is based on field notes written while watching them. These notes have been submitted to the Rare Birds Committee. For most of the time, 8 x 30 binoculars and 15 x 60 telescope were used.

Resembles Lesser Knot more than any other wader in New Zealand — being of similar general proportions, habits and colouration — but distinguished at once by the distinctly larger size and relatively longer bill, the presence on the breast of large dark spots or blotches of variable intensity, the boldly streaked crown and upper back or mantle, the lack of a distinct pale superciliary stripe, and, in flight, the prominent white rump contrasting with the grey lower back and tail, as opposed to the uniformly barred pale rump and tail of the Lesser Knot. The white rump in flight is perhaps the best

distinguishing feature at a distance, and could be discerned at 400 yards with 20 x telescope; it was particularly outstanding on the three larger birds when the group was put to flight by the Black-backed Gull. All the other features described above were quite evident with 8 x 30 binoculars at 80 yards, the streaked crown and mantle contrasting particularly with the plain grey plumage of the Lesser Knot when the birds were all facing us with their heads down, feeding. In side view, the larger size, longer bill, heavily marked breast, and indistinct superciliary of the Great Knots were obvious points of difference from the Lesser Knot.

Further descriptive details, noted at close range, are as follows:

Bill black, about 1¼ x length of head, and slightly decurved towards tip (in contrast to the virtually straight bill of the Lesser Knot). Legs dark. General tone of plumage close to that of Bar-tailed Godwit in winter plumage. Upperparts generally greyish, the bold streaking and mottling on the mantle continuous in front of the wing and on to the breast. The darkly spotted breast was demarcated from the white abdomen by a more or less distinct edge. In one individual, the breast markings were very dark, giving the breast an almost blackish appearance, whereas in the other two the breast was pale, with only small dark blotches (which distinguished it from the uniformly pale breast of the Lesser Knot). An indistinct pale superciliary was present, but contrasted markedly with the distinct whitish superciliary of all the Lesser Knots.

On the ground, the Great Knots fed with the Lesser Knots, bills probing into the mud, some yards from the water's edge. Sometimes, however, they formed a small group of three on their own. The first individual seen, with the Godwit flock on the south side, walked around feeding on snails (species uncertain) while the Godwits were still roosting. The slow passage of the snail up the bill, sometimes stopping halfway before being swallowed, somehow accentuated the length and slight decurvature of the latter. I had made this same observation on the Great Knots feeding at Pelican Point, Western Australia, ten months previously. In my experience, the Lesser Knot, with its much shorter bill, always gulps its food down too rapidly for identification. Only the first bird at Manawatu was seen eating snails — the food of the three on the north side could not be identified, nor could the manner of feeding be distinguished between the two species.

The slight decurvature of the bill of the Great Knot is a variable feature and has been overlooked in published descriptions. It is less marked than on the Curlew Sandpiper *(C. ferruginea)*, but was quite pronounced on a dead specimen which I found at Pelican Point, and may be seen on some, but not all individuals in photographs taken there by me.

The darker-breasted bird at Manawatu evidently still retained some of its nuptial plumage. In full breeding plumage, the breast is quite black, the lines on crown and the markings on the mantle are black or chocolaty black, and the scapulars are a dark chestnut. This plumage must be very distinctive, and is in marked contrast to the reddish colour of the Lesser Knot. Birds at Pelican Point even in December showed variable intensity in their breast markings.

Finally in this descriptive section are given some measurements of Great Knots quoted by Serventy (1944), with the corresponding figures for the Lesser Knot in brackets (quoted by Oliver, 1955): Bill 39.5 - 45.0 mm. (31 - 36.5), wing 175 - 187 (152 - 174), tarsus 33.5 - 37.3 (30 - 33), mid toe 30.0 - 31.7 (20 - 23). Measurements I made on a fresh specimen at Pelican Point were: Bill 47 mm., tarsus 36, mid toe 31.5.

The Great Knot is a more southerly breeder than the Lesser Knot, its home being the mountains of northeastern Siberia, whereas the eastern race of the Lesser Knot *(C. c. rogersi)* breeds on the New Siberian Is. (McGill, 1947; Hindwood & Hoskin, 1954). Their wintering ranges overlap in parts, however, and where this overlap occurs the two species frequently associate together. The wintering area of the Great Knot is given by Vaurie (1965) as Burma, Malaya, India, Sundas, north Australia, and recorded Persian Gulf. Masters (1876) recorded it as very common on all the islands of Torres Strait, and it is a more frequent visitor to southwest Australia than the Lesser Knot (Serventy, 1938). It is regular on the Queensland coast (Amiet, 1957), and straggles in very small numbers south to Sydney (Hindwood & Hoskin, 1954). There are isolated records from South Australia and Victoria (McPherson, 1957), but none to my knowledge from Tasmania.

The Lesser Knot (eastern race) has a generally more easterly and southerly wintering range. It is rare or unrecorded from Malaya, Indonesia, New Guinea (McGill, 1947), but regular on the Queensland and New South Wales coasts (Amiet, 1957; Hindwood & Hoskin, 1954). It has been recorded from Tasmania and Macquarie Island, but its main wintering quarters are in New Zealand. The route taken by the Lesser Knot on migration to and from New Zealand is not known, and records from Lord Howe Id., Norfolk Id., and New Caledonia are virtually non-existent (Hindwood & Hoskin, 1954). There is no direct evidence that birds move down the east coast of Australia before crossing the Tasman Sea. However, that at least some birds follow such a route is quite plausible, and since Lesser and Greater Knots associate in single flocks on the Queensland coast (Amiet, 1957), as well as in southwest Australia (personal observation), it is not surprising to find the two species together in New Zealand, and we look forward confidently to the next sighting of the Great Knot.

REFERENCES

AMIET, L., 1957: **Emu 57,** 236.

FALLA, R. A., SIBSON, R. B., and TURBOTT, E. G., 1966: "A Field Guide to the Birds of New Zealand and Outlying Islands," Collins.

HINDWOOD, K. A., and HOSKIN, E. S., 1954: **Emu 54,** 245.

McGILL, A. R., 1947: **Emu 47,** 137.

McGILL, A. R., 1948: **Emu 48,** 159.

McPHERSON, L., 1957: **Emu 57,** 346.

MASTERS, G., 1876: **Proc. Linn. Soc. N.S.W. 1,** 44; quoted by McGill (1948), Serventy (1944).

OLIVER, W. R. B., 1955: "New Zealand Birds," 2nd ed., Resd.

SERVENTY, D. L., 1938: **Emu 38,** 28.

SERVENTY, D. L., 1944: **Emu 43,** 278.

VAURIE, C., 1965: "The Birds of the Palearctic Fauna," Vol. II, Non-Passeriformes.