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Establishment of the Black-fronted Dotterel in Southland

Colonisation in Southland by Black-fronted Dotterels (*Charadrius melanops*) began in the lower reaches of the Aparima River and in the Te Anau area in or before 1980 and in the lower reaches of the Oreti River in 1985. The status of the species on the Mataura River is unknown but one pair was seen on the lower reaches in 1982 and 1985. On the Aparima River by 1985, 24 birds, mostly in pairs, were widely distributed between Gummies Bush near the coast and Wrey's Bush 50 km inland. Small winter flocks have occurred inland on the rivers.

Patterns of establishment in New Zealand by the Black-fronted Dotterel have been described by N. B. Mackenzie for Hawke's Bay, B. D. Heather for Wairarapa and P. & M. Child for Central Otago. In Southland all but two of the early records from 1962 to 1980 were coastal sightings of birds in ones and twos. Breeding was first suspected in 1980 on the Aparima River, and in the same year two birds were reported from the lower Mararoa River in the Te Anau area. By 1985 the species had established itself on those waterways and was breeding also on the lower Oreti River and probably the lower Mataura River. This account summarises the status of the species in Southland.

LOCALITY SUMMARIES

Aparima River: First recorded at Thornbury 13.1.80, 3 birds, probably then breeding. Two nests found 26.10.81. On monthly checks of this site between February 1982 and December 1983, Owen Linscott found 2 birds

on most visits until August 1983 but none September to December. Two were there again, displaying, in October 1985. In 1985 the species was breeding on the lower and middle reaches, between Gummies Bush and Wrey's Bush, approximately 50 km upstream. In November 1986 a pair nested on a road verge 200 m from the riverbed and separated from it by willows, pasture, a country rubbish tip and the road. On 25.3.88 1 bird and 27.4.88 2 birds were found on the contributory Otatau Stream.

Numbers: 24 birds (7 pairs, 10 singles) and 3 nests were found on an OSNZ survey of the riverbed from source to coast on 22/26.10.85. Behaviour of all pairs and some single birds indicated that more than three pairs were breeding. Twenty adults and 1 chick were found between Wrey's Bush and Thornbury by an OSNZ party in January 1987 during a national field study week. On 5.3.88 a flock of 10-12 were moving to and fro over a distance of about 600 m upstream and downstream of the Otatau bridge. They were still there on 12.3.88.

Oreti River: None found on an OSNZ survey of the whole river in October 1974. First sightings at Branhholme on lower reach, October-November 1985, 2 birds, breeding suspected. OSNZ river survey October 1986 found 4 adults and 1 juvenile between Branhholme and Riverton Road bridge but none further upstream.

Mataura River: 1 at Mataura Island 20.12.77 and 2 at Wyndham 25.2.82 and 28.4.85 indicate a presence on the lower reaches. Status unknown but breeding probable. There is some apparently suitable habitat. The river has not been surveyed by practised observers of the species.

Te Anau area

Lower Mararoa River: 2 at Riverslea 4.5.80; 6 at mouth 3.8.80. On 3.4.85 none were found between Key bridge and Whitestone mouth, but 4, including 1 immature, were seen between Whitestone and Mararoa dam. 13.10.85, 3 at Mararoa mouth; 2.11.85, 5 single birds (1 false brooding) between Whitestone mouth and Mararoa mouth; 3.11.85, 2 copulating, another false brooding; 27.11.85, 1 adult and 1 juvenile; 22.12.85, 1 adult.

Winter counts: Mararoa dam, 9 on 22 and 26.5.85; 7 on 16.6.85, 5 on 29.6.86. Mararoa mouth, 9 on 23.5.87.

Lower Whitestone River: 1 on 6.3.82, 2 on 15.9.84, 0 on 7.10.84, 1 on 17.9.85 and 2.11.85, 2 (1 at mouth, 1 at 1.2 km upstream) on 3.11.85, 1 on 5.9.87.

Most Te Anau area sightings were made by Kim and Jenny Morrison who say: "Black-fronted Dotterels have been resident on the Mararoa River since at least 1980 and breeding has been probable Birds might have been colonising the lower Whitestone River since 1984 though suitable habitat is limited. We have not seen Black-fronted Dotterels on the Eglinton River, Upukurora River or upper Whitestone River although there are suitable places for them".

Other: Records from Waimatuku Mouth are: 1 in January 1962; 2 on 2.6.66; 1 on 6.6.70; 2 on 28.6.70; 2 on 29.4.72; 1 on 29.4.85. The samolus flats and sandhills of Waimatuku Mouth are not breeding habitat for the species. Single birds seen at Riverton in 1963, Makarewa River near Wallacetown in January 1973, Waituna Lagoon on 28.11.77 and Lake George in February 1983.

Post-breeding movement: Autumn and winter sightings of birds in ones and twos on wetlands near the coast indicate post-breeding movement away

from the breeding grounds by some birds. Three reports of small inland flocks were of 9, 7 and 6 on the Mararoa in May, June and August and 10-12 on the Aparima in March.

DISCUSSION

Aparima River records give evidence of initial breeding on the lower reaches and extension within five years to about 50 km upstream. In that time numbers apparently increased from 1 - 2 pairs to 7 - 12 pairs. Earlier presence upstream than appears in the records cannot be discounted but is unlikely. The Aparima is a popular fishing river and is fished by several Southland OSNZ members. They and Southland Acclimatisation Society field officers are not likely to have left Black-fronted Dotterels unremarked or unreported.

Initial breeding on the Oreti River (proven) and Maitara River (probable) has, as on the Aparima, been on the lower reaches. This initial establishment, when considered together with the post-breeding move to the coast by some birds, and the early records from the coast, suggests that early colonisers in Southland may have arrived by the coastal route. Alternatively, Barrie Heather (pers. comm.) suggests that it may merely be that the greatest choice of feeding habitat is in the lower reaches, and that the same (lower reach initial establishment) is true of the Wairau and Awatere Rivers in Marlborough and the Mohaka River in northern Hawke's Bay.

The roadside nest in 1986 raises the question of population pressure, and whether, even at that apparently early stage of colonisation, optimum numbers had been reached on the Aparima riverbed. I have walked most of this riverbed several times since 1985 while collecting data on Banded Dotterel (*C. bicknelli*). Despite changing water levels and channel variations, each year there were sections of apparently suitable habitat (raised mixed-grade shingle terrace handy to quiet shallow water and some damp mud or silt) which did not hold Black-fronted Dotterels. Barrie Heather (pers. comm.) knows of North Island nests outside the riverbeds. He cites an early record from Dave Sim of a Wairarapa pair nesting on the shingle berm of a road close to the lower Ruamahanga River, and regular breeding in the shingle and mud bottoms of gravel borrow-pits within Masterton Borough boundary and elsewhere. The roadside nest near the Aparima, and the North Island records, indicate that any river survey which is limited to the riverbed and its berms may be inadequate when looking for this species.

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