

## SHORT NOTE

### The status of the Red-capped Dotterel in New Zealand

The Red-capped Dotterel (*Charadrius ruficapillus*) is a small (140-165 mm) dotterel native to Australia where it occurs on a variety of mainly coastal shores but also inland (Pizzey & Doyle 1980). Its status in New Zealand has varied and has remained uncertain.

#### Historical records

As McKenzie (1980) observed, the Red-capped Dotterel has had a curiously inconclusive history in New Zealand. First recorded near Waikanae in 1878, the next record was not until 1947-50 when a single female bred with a Banded Dotterel (*C. bicinctus*) on the Ashley River in North Canterbury (Oliver 1955). Between 1955 and 1975 further sightings were made on or near the Ashley River, one bird was seen at Lake Tuakitoto in South Otago and several sightings, including one of two birds, were made near Auckland (McKenzie 1980). McKenzie wondered whether these northern sightings were of stragglers from Australia or of birds among migrating Banded Dotterels from Canterbury.

During the 1960s and 1970s, Davis (1980) made several sightings of breeding and non-breeding birds on three North Canterbury rivers: the Ashley, Waipara (Figure 1) and Leader. In 1966 she recorded eight Red-capped Dotterels on the Ashley River. The most recent record by Davis was of an adult pair at the mouth of the Ashley River in 1978. A pair attempted breeding on the Ashley River in the 1979-80 breeding season (Howell, pers. comm. in O'Donnell & Moore 1983), and Sagar (1982) found a male at Lake Ellesmere (Waihora) on 24 January 1981.

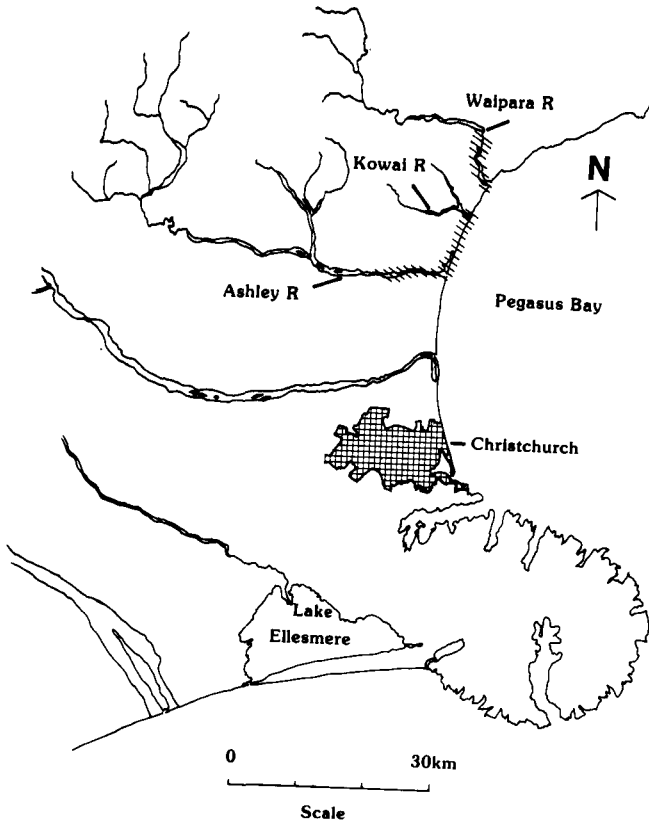
#### Recent surveys

The Wildlife Service surveyed the lower Ashley River in October 1980 (Moore 1980) but found no Red-capped Dotterels. Over the past few breeding seasons I have walked most of the lower Waipara River, and in December 1986, Paul Pierson, Peter Tillson and I surveyed the Leader River. Since 1983 I have covered most of the lower Ashley River, in most places several times. I have made many trips to the Ashley Estuary, as have others, especially S. Moore of the former Wildlife Service. We have seen no Red-capped Dotterels.

On 22-23 November 1987, staff of the Department of Conservation and volunteers systematically surveyed the lower 10 km of the Ashley River, the lower Kowai River and the lower Waipara River. All of the coastal estuaries and ponds and much of the wide beaches between the Waimakariri and Waipara Rivers were also surveyed (Hughey 1987). Red-capped Dotterels were not found. Furthermore, none has been seen near Auckland since 1975.

#### DISCUSSION

Red-capped Dotterels seem to have bred in New Zealand during three decades from 1950 to 1980. A small population was apparently established on the Ashley River with birds also recorded on the Waipara and Leader rivers. Non-breeding birds were recorded at the Ashley Estuary and, on



Key: /// 1987 Survey areas

Figure 1. — Study areas

occasions, near Auckland. The last breeding record was from the Ashley River in 1979 and the last non-breeding records were in 1975 for Auckland and 1981 for Lake Ellesmere (Waihora). The disappearance of this species from previously known breeding sites seems to have been confirmed by the intensive 1986-87 surveys.

Why Red-capped Dotterels have died out in New Zealand is difficult to explain. Similar events have occurred for several other species, e.g. Nankeen Kestrel (*Falco cenchroides*) and Red-necked Avocet (*Recurvirostra novaehollandiae*). Habitat, climate, food supply or competition may be contributing factors in these arrival, establishment and extinction cycles. In Australia Red-capped Dotterels breed and feed along shore lines, around lake shores and estuary margins; almost always on a sand substrate. Superficially similar habitats are abundant in New Zealand. Many Red-capped Dotterels occur in Tasmania at a similar latitude with a similar climate

to many parts of New Zealand. These conditions seem to support similar invertebrate fauna, and so food supply is not likely to be a reason for extinction.

Although sightings around Auckland harbours had been irregular they nevertheless occurred during the period of establishment and breeding in North Canterbury. That none have been seen in the north since 1975, only six years before the final Canterbury record, makes McKenzie's (1980) question about the Auckland record very interesting. Davis (1980) suggested that birds arrived on the riverbeds in late winter and stayed until late November. All Auckland sightings were in the December-March period (McKenzie 1980). It seems likely that these birds had migrated north from Canterbury. The second part of McKenzie's proposition seems unlikely, in the light of recent study of Banded Dotterels. So far, of more than 200 Banded Dotterels colour banded on the lower Ashley River only four have been reported from the North Island. Most have been seen at Lake Ellesmere (Waihora), followed by Australia (Hughey, unpub. data). Movement north with flocks of Banded Dotterels therefore seems unlikely. However, all of the Wrybills (*Anarhynchus frontalis*) nesting on the Ashley River migrate to the North Island (Hughey, unpub. data).

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