

SHORT NOTE

Record of a southern New Zealand dotterel
(*Charadrius o. obscurus*) in the northern North Island

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The New Zealand dotterel (*Charadrius obscurus*, NZD) is an endemic plover that includes two subspecies (Dowding 1994a; Checklist Committee 2010). The northern New Zealand dotterel (*C. o. aquilonius*, NNZD) breeds around much of the coastline of the North Island, but is most common in northern and eastern areas (Dowding 2020). The southern New Zealand dotterel (*C. o. obscurus*, SNZD) formerly bred inland throughout the South Island, and probably in a few inland parts of the lower North Island, but for about the past century breeding has been confined to Stewart Island (Dowding 1999).

The two subspecies were raised to species level by del Hoyo *et al.* (2014), based on the (largely morphological) criteria developed by Tobias *et al.* (2010). The broad application of those criteria for species delimitation has been controversial, however (e.g. Remsen 2016). In this case, I note that the total separation score of 7 is borderline (and some of the individual scores debatable), and the split was described as “tentative and provisional”; it was also recognised that the two current taxa could

represent the surviving extremes of an earlier cline (del Hoyo *et al.* 2014). A study by Barth *et al.* (2013) suggested little genetic variation between the two groups and appeared to support subspecies status. The most recent New Zealand checklist is 10 years old (and recognised the two groups as subspecies) (Checklist Committee 2010), but I note that the elevation to species has not been adopted by the New Zealand threat ranking scheme (Robertson *et al.* 2017), nor by the most recent eBird/Clements Checklist (Clements *et al.* 2019). Until further data are available or the New Zealand Checklist Committee makes a deliberation on the matter, I continue to recognise the taxa at subspecies level.

The SNZD population is small (estimated at 173 individuals in autumn 2020; K. Carter, Department of Conservation, *pers. comm.*), and under the New Zealand threat ranking scheme the taxon is currently classified as Threatened (Nationally Critical) (Robertson *et al.* 2017). SNZDs, including banded juveniles, are seen occasionally around the South Island coastline (Dowding & Murphy 1993; Dowding & Moore 2006), but none have been reported from the North Island. This note records sightings of a banded SNZD in the Waitemata Harbour, Auckland, well outside the known range of the subspecies.

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As part of research on SNZDs on Stewart Island in the early 1990s, birds were individually colour-banded to assess survival and determine movement patterns (Dowding & Murphy 1993). On 25 December 1991, a bird was banded OWB-M (D-148019) on the ridge immediately south of Blaikies Hill, Stewart Island (47.0599°S, 167.8406°E). At the time, adult mortality was very high, especially that of males, probably because they incubate at night and are more vulnerable to nocturnal mammalian predators (Dowding & Murphy 2001). A severe gender imbalance had developed in the population, and female-female pairs were forming (Dowding 1994b). OWB-M was a member of such a female-female pair, and at the time of banding was defending a 5-egg nest (the normal male-female clutch is three). Its mate was also banded (ROB-M, D-148020) on the same day, but was never seen again. OWB-M was not seen on visits to its breeding territory on Blaikies South Ridge in October and December 1992, nor at the Mason Bay post-breeding flock in February 1993. The next sighting after banding was at the post-breeding flock site at Mason Bay, Stewart Island (46.9292°S, 167.7745°E), on 24 March 1993.

On 18 July 1993, I was checking a small group of NNZD for bands on the shell banks on the southeastern side of Shoal Bay, Waitemata Harbour, in Auckland (36.8111°S, 174.7699°E). With four NNZD was a bird that was clearly much darker than the others and was carrying the colour combination OWB-M. No combinations have been duplicated between the northern and southern populations, so this can only have been the bird banded at Blaikies South Ridge. It was subsequently seen in Shoal Bay on 25 July, 21 August, 1 September, and 3 September. The straight-line distance (measured on Google Earth) between the last sighting on Stewart Island (the Mason Bay flock site) and Shoal Bay is 1,264 km, and the elapsed time between the sightings was 116 days.

On 3 September 1993, I took several photographs of the bird on slide film. A scan of one of these slides is shown in Figure 1, cropped but not otherwise altered. The SNZD is nearer the camera (with its bands clearly visible), with a typical NNZD behind it. This may be the only known example of a live individual of each subspecies being recorded on a single image, and therefore comparable under the same conditions of lighting and exposure. In separating the subspecies, Dowding (1994a) commented on the much darker dorsal plumage of SNZD, and in this respect the difference between the two individuals in Figure 1 is strikingly obvious.

OWB-M was not seen in Shoal Bay after 3 September in 1993, but it was seen there again on 4 June 1994, and that was the last sighting. Whether it returned to Stewart Island during the 1993/94



Figure 1. Southern New Zealand dotterel (*C. o. obscurus*) OWB-M (foreground) and an unbanded northern New Zealand dotterel (*C. o. aquilonius*) (rear). Shoal Bay, Waitemata Harbour, Auckland, 3 September 1993 (Photograph: J.E. Dowding).

breeding season is unknown, but it was not seen at the Mason Bay post-breeding flock site in late March 1994.

The most likely reason for this highly unusual movement was a search for a potential mate, due to the apparent loss of ROB-M and the acute shortage of adult male birds on Stewart Island at the time. As noted by Dowding & Chamberlin (1991) for NNZD, breeding adults are normally highly faithful to their breeding and flocking sites, and unusual movements away from those are often associated with mate-loss or divorce.

Overlap between the subspecies of NZD is now increasingly likely. The present report appears to be the only known case of a SNZD in the North Island in recent years, although there are regular reports of low numbers of them in the northern South Island, particularly from the Nelson region (Dowding & Murphy 1993; Dowding & Moore 2006). However, NNZD have expanded their range southward in recent years, and are now breeding within about 50 km of Cook Strait (Dowding 2020).

NZD are known to cross water barriers regularly, for example the c. 16 km between Coromandel Peninsula and Great Barrier Island (Ogden & Dowding 2013), and the 25–30 km across Foveaux Strait (Dowding & Murphy 1993). In combination

with the present record, those cases suggest that Cook Strait (at *c.* 25 km) is not a major barrier and there is therefore no obvious reason why the expansion of NNZD will not continue across it. More regular overlap between the ranges of the subspecies in the northern South Island thus seems likely, but whether there will be inter-breeding in the zone of overlap is much less certain. First, most of the banded SNZD seen in the northern South Island have been juveniles (Dowding & Murphy 1993; Dowding & Moore 2006). Second, the two taxa use very different breeding habitats, with SNZD currently breeding inland on subalpine hill-tops on Stewart Island, and NNZD breeding almost entirely on (or near) coastal beaches (Dowding 1994a, 2020). This difference in breeding habitats could result in reproductive isolation, even when the ranges of the subspecies overlap.

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