

Monitoring of New Zealand dotterel/tūturiwhatu breeding success on Motuihe Island

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Motuihe Island (Hauraki Gulf), pest-free since 2004, is considered by the Department of Conservation as a priority site for Northern New Zealand dotterel (NNZD; *Charadrius obscurus aquilonius*) management. A previous study¹ recorded nine breeding pairs during the 2007–08 breeding season with a fledging rate of 1.22. In contrast, initial monitoring efforts over the 2023–24 breeding season observed limited breeding success and ultimately no fledglings. These findings highlight the need for increased protection and support to improve breeding success.

Increased monitoring was undertaken in the 2024–25 breeding season; monitoring was conducted approximately fortnightly totaling 13 trips, and a trail camera was deployed at one of the nests to observe any interspecific interactions. Management measures including the installation of nest shelters (Figure 1) and



Figure 1. Example of a nest shelter.

moving of nests above the high tide line were also implemented. Nest shelters were constructed using chicken wire mesh (800mm x 800mm) with four wooden posts (500mm) attached in the corners; these were installed over dotterel nests as a physical barrier to deter predation and disturbance by other birds.

Nesting success in the 2024–2025 breeding season showed a marked improvement from the previous year, with a total of six fledglings (Table 1). The key improvement was a high hatching rate of 0.74, which was likely attributable to the increased management measures implemented. Camera trap footage appeared to support that nest shelters provided protection for NNZD nests against larger birds; several photos/clips showed black-backed gulls approaching the nest but were presumably unable to access the nest due to the shelter (Figure 2).

Table 1. Summary of NNZD breeding success on Motuihe Island.

Breeding Results	2007–8	2023–24	2024–25
Hatching rate (chicks per egg)	0.586	0.29	0.74
Fledging rate (fledglings per pair)	1.22	0	0.8
Number of fledglings	11	0	6

We



Figure 2. Example of nest shelter appearing to provide protection from a black-backed gull.

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¹ H.R. Neate, J.E. Dowding, K.A. Parker, & M.E. Hauber. 2011. Breeding success of northern New Zealand dotterels (*Charadrius obscurus aquilonius*) following mammal eradication on Motuihe Island, New Zealand. *Notornis*, 58(1), 17 – 21.