

Census of small petrels in North Otago

Seabirds at Katiki Point in North Otago have been monitored by Penguin Rescue volunteers in two-hectares of forest planted on pasture since 1984. Five seabird species have since colonised there, with most burrows located within the forest. Little Penguin began nesting there in 1991 (37 nests in 2014), followed by Sooty Shearwater in 1997 (203 nests in 2014), with the first Broad-billed Prion nest found in 2002. Two more burrow-nesting species have been recorded ashore but breeding has not been verified—White-faced Storm Petrel, first seen in 1994. and Common Diving Petrel, first seen in 2014. Katiki Point is the only mainland site known for Broad-billed Prion and White-faced Storm Petrel, and the second for Common Diving Petrel. This site lacks small seabird burrows and we expect that these three small species nest in offshoots within Sooty Shearwater burrows. Evidence for breeding by storm petrels and diving petrels was derived mainly from an unfortunate source—the bodies of depredated birds during spring have enlarged gonads.

A Birds New Zealand Project Assistance Fund has funded the cost of seven motion-activated trail cameras over three years to locate and monitor burrows used by small petrels here. Outcomes from the first year, the 2015/16 breeding season, produced mixed results. Storm petrels and/or diving petrels were recorded beside only about three Sooty Shearwater burrows and prions at only one burrow. A probable positive outcome was that we moved mammal traps in response to records of cats and mustelids on trail cameras, and this may have contributed to a reduction in predation. Thorough searches found 25 depredated small petrels through 2014/15 (5 prions, 13 storm petrels and 7 diving petrels) but none through 2015/16. Unfortunately predation has not been eliminated, with two diving petrels depredated by mid October in 2016.

This season (2016/17) we plan to enhance the likelihood of locating small petrels by broadcasting species-specific bird calls at the entrance of burrows and listening for a response. Hopefully this will facilitate an efficient use of the trail cameras and lead to an accurate census of small petrel nests at Katiki Point.

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Burrow sharing by three petrel species—three trail camera photos showing White-faced Storm Petrel (left) and Common Diving Petrel (centre and right) beside the mouth of a Sooty Shearwater burrow. The number tag is 75 mm wide.

