

Identifying areas of high conservation concern through GPS tracking of kuaka (*Pelecanoides whenuahouensis*) during the breeding period



Te Arawhetu Waipoua, University of Otago

The critically endangered kuaka (Whenua Hou Diving Petrel; *Pelecanoides whenuahouensis*) is a recently described burrow-nesting petrel species, that is a taonga species to Ngāi Tahu. Kuaka were once widespread throughout southern Aotearoa, but now the last remaining colony is restricted to Whenua Hou, with an adult population of ~200 individuals. Threats from commercial fishing efforts around Whenua Hou, such as vessel-based light pollution, which can lead to disorientation and collisions (vessel strikes) of birds, may inhibit population recovery. Kuaka are most at risk of fisheries interaction during the breeding period, as they are bound by central-placed foraging with their distribution overlapping with commercial fisheries and marine traffic. Increased anthropogenic use of national waters is predicted, with the anticipated installation of offshore aquaculture and wind farms.

To ensure that current threats are addressed and that future developments do not increase risks to kuaka, areas of conservation concern must be identified. I will deploy lightweight GPS data loggers on adult kuaka, tracking them during the incubation and chick-rearing period. Resulting fine-scale distribution data will allow us to identify at-sea behaviour, foraging hotspots, and overlap with commercial fisheries/future offshore industries. Identifying areas of high importance for kuaka will inform proactive conservation management.



Kuaka/Whenua Hou Diving Petrel fledgling. Photo credit: Te Arawhetu Waipoua