

## **The biology of the Buller's shearwaters. Poor Knights Islands**

Buller's shearwater (*Ardenna bulleri*) is an endemic procellariiform to New Zealand. It's only nesting site is the Poor Knights Islands group and it is classified as Vulnerable on the IUCN Red List. In spite of it being a commonly seen species in the Hauraki Gulf during their breeding season the overall ecology of this species remains little studied. Evidence suggests that foraging trips during incubation may have increased in the past 40 years from 4 to up to 14 days and new at-sea records of adults suggest they could be traveling further south in single foraging bouts during chick provisioning. Recent visits (2011-2012) to the Poor Knights Islands (Aorangi Island) during breeding indicate that previous population estimates appear to be have been either far too high or the population has declined significantly. The objective of this study is to investigate Buller's shearwater populations and breeding biology at the Poor Knights Islands including assessing the duration of incubating and chick provisioning shifts. This will be achieved with controlled site burrow checks, population models using burrow occupancies around transects, and population densities using acoustic surveys. We will also be establishing permanent plots for continued monitoring. We aim to have a preliminary population estimate by the end of 2017.

These data could potentially lead to a change in the conservation status of the species and management in New Zealand, while also contributing to the biological understanding of a little-known seabird at an international level. The results of this survey will feed into a larger, separately funded project that will investigate the foraging behaviour of Buller's shearwaters throughout their range and consider the indirect impact of fisheries on an endemic and threatened species.

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