

Monitoring morepork - an example from Fiordland

Moira Pryde¹, James Mortimer, Terry Greene, Stuart Cockburn

¹*Department Of Conservation*

Owls have been used internationally as an indicator of ecosystem health. As a top predator they are subject to any toxins within the system but they are also vulnerable to predators as they nest in holes so females can be preyed on the nest. Owls can therefore be a good indicator of the efficiency of predator management. Methods to monitor morepork include assessing territories by radio-tracking studies, mouse lures or acoustic surveys. Acoustic recording devices are becoming increasingly popular as a monitoring tool, especially for cryptic or nocturnal bird species. The Electronics Department at the Department of Conservation has produced a lightweight, waterproof acoustic recording device that can be used for this purpose. We wanted to find out the best time of night or month to monitor morepork to aid in the development of a robust monitoring method. We placed 14 acoustic recording devices over one 400 ha block in the Eglinton Valley in Fiordland. We placed them at 500 m intervals and analysed presence or absence of morepork in 15 minute blocks over one night every month from August until March over a season (2011-2012). Morepork called in all months and at all times of night. Calls varied significantly between each month and over the hours of darkness. December had the highest rate of calling so is the preferred month to monitor but we provide guidance on the best times to monitor in all months that were monitored. The results were comparable with the national dataset.