

Evaluating the Effectiveness of Call Surveys for Spotless Crakes (Pūweto) in the Manawatū-Whanganui region.

The spotless crane (*Zapornia tabuensis*), or Pūweto, is one of New Zealand's most secretive wetland birds. Very little is known about its ecology, relevantly in relation to preferred habitat and reliable methods for detecting its presence. This project aimed to address these gaps by investigating habitat associations and testing the effectiveness of call playback surveys for monitoring spotless crakes in the Manawatū-Whanganui region.

Fieldwork was completed between September 2024 and March 2025 across a range of wetland sites. Targeted acoustic surveys were conducted alongside detailed vegetation mapping and analysis. Playback surveys were used to examine factors influencing detection probability and calling rates, and data were analysed using generalised linear mixed models to assess the effects of environmental and survey variables.

Findings indicated that spotless crakes are more likely to occur in wetlands with dense fringing vegetation dominated by tall emergent plants such as raupō and flax, although some habitat flexibility was observed. Detection probability was affected by both environmental conditions and time of day, emphasising the need for standardised survey protocols to improve monitoring reliability.

Overall, this research has provided valuable insight into the ecology and monitoring of spotless crakes. The results will help refine best-practice survey methods, inform wetland management, and support conservation of other cryptic, wetland-dependent species across Aotearoa.

(Photo: Spotless crane habitat, Manawatū wetland)



Charlotte Rose Andrew