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FORAGING ECOLOGY OF THE WORLD'S ONLY
POPULATION OF THE CRITICALLY ENDANGERED
TASMAN PARAKEET (*CYANORAMPHUS COOKII*), ON
NORFOLK ISLAND

A thesis presented in partial fulfilment of the requirements for the degree of

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The Tasman parakeet (*Cyanoramphus cookii*) Photo: L. Ortiz-Catedral®

ABSTRACT

I studied the foraging ecology of the world's only population of the critically endangered Tasman parakeet (*Cyanoramphus cookii*) on Norfolk Island, from July 2013 to March 2015. I characterised, for the first time in nearly 30 years of management, the diversity of foods consumed and seasonal trends in foraging heights and foraging group sizes. In addition to field observations, I also collated available information on the feeding biology of the genus *Cyanoramphus*, to understand the diversity of species and food types consumed by Tasman parakeets and their closest living relatives as a function of bill morphology. I discuss my findings in the context of the conservation of the Tasman parakeet, specifically the impending translocation of the species to Phillip Island. I demonstrate that Tasman parakeets have a broad and flexible diet that includes seeds, fruits, flowers, pollen, sori, sprout rhizomes and bark of 30 native and introduced plant species found within Norfolk Island National Park. Dry seeds (predominantly *Araucaria heterophylla*) are consumed most frequently during autumn (81% of diet), over a foraging area of ca. 90 hectares, at 6.94 m above the ground. During winter, consumption of dry seeds remains high (61%) however over less than half the foraging area of autumn (46 hectares). More importantly, foraging height during winter is significantly lower than any other season, at 2.16 m. Though overall 18% of all foraging registered occurs at ground level, the highest frequency occurs during winter (55.4%). I argue that this seasonal shift in foraging area and height has important consequences for the management of Tasman parakeets. In particular foraging close to the ground within a small area makes the world's only population of Tasman parakeets highly vulnerable to predation by introduced cats, thus intensification of cat control during this period is crucial for safeguarding this species *in situ*.

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Norfolk Island truly is a pacific paradise. It is my hope this work will contribute to the conservation of your unique green parrot for the enjoyment of generations of Islanders to come. Thank you, everyone.

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Me reading the band of Tasman parakeet chick. July, 2014.

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