The Urban Release of Captive-Reared Kaka at Karori Wildlife Sanctuary

A thesis presented in partial fulfillment of the requirements of the degree of

Master of Science

In Ecology

At Massey University, Palmerston North

Sara Belcher

February 2004

Acknowledgements

Thanks to Raewyn Empson, Conservation Manager at Karori Wildlife Sanctuary for giving me the opportunity to conduct this study. Working at Karori gave me an invaluable experience and it was an amazing opportunity.

Thanks also to Denise Fastier at Karori Wildlife Sanctuary. Without you and Raewyn, this study could never have been done. Thanks for showing me the ropes. Thanks for the effort you put into the manufacture of the harnesses and managing the supplementary feeding.

I would also like to thank the staff and volunteers at Karori Wildlife Sanctuary. Your reports and support were invaluable. Special thanks to the Wednesday working gang, who constructed the feeders and nest boxes, and to the volunteers who fed the Kaka every day.

A special thanks to my wonderful long-suffering partner. Thanks for all your support and encouragement. Thanks for your invaluable assistance in the production - at times we thought it would never end.

Thanks heaps to John Shorland who supplied the wonderful images of the Kaka and chicks, and allowing me to use them. Thanks to Anala Miller for allowing me the use of your image of the Kaka release.

Thanks to my supervisor Doug Armstrong. I appreciate all the effort you put into vetting my thesis.

Thank you to the Department of Conservation staff that assisted in putting on the transmitters, banding and answering my quires for information.

Finally, thank you to Alf (RP-P) and his Kaka friends who had to put up with me following them wherever they went for a whole year.

Abstract

This study investigates the first reintroduction of captive-reared Kaka (*Nestor meridionalis*), an endangered parrot endemic to New Zealand, at Karori Wildlife Sanctuary, a predator free privately run sanctuary in the same vein as the Department of Conservation's mainland islands. Three Kaka from Auckland Zoo and three Kaka from Hamilton Zoo were released into Karori Sanctuary in August 2002 and followed until August 2003. The Kaka were fitted with radio transmitters, and coloured bands before release.

Before release, the consumption of supplementary foods was monitored and the Kaka were introduced to natural foods. The Kaka showed no significant temporal trends, and no correlation between the two groups. The Kaka showed marked preferences for some foods and very varied consumption of others. The Kaka instinctively foraged on natural foods that were provided. Provisioning of natural foods may have reduced neo-phobic responses and assisted successful transition to the wild.

Five of the six Kaka remained at the sanctuary 13 Months after release. The Hamilton Kaka tended to disperse further than the Auckland Kaka. All the Hamilton Kaka left the valley where as non of the Auckland birds did. RP-P left the valley and few to Island Bay eventually to return, RR-P went west to beyond Makara peak, and RW-P is the only Kaka to leave and not return. An un-banded wild male arrived at the sanctuary in January 2002 and has reminded since. RP-P and P-WY nested in December 2003 and 3 chicks fledged in March 2003, the pair nested again in 2004 along with RR-P and P-WB.

The largest part of the Kaka activity budget is foraging. Supplementary food is a large part of the Kaka diet and the more time a bird spent foraging on natural foods the less time they spent at the feeder. The Kaka at Karori developed a unique location call, and there was evidence of this being taught

to the Auckland Kaka by the Hamilton Kaka. Use of the feeder was taught to the wild Kaka that arrived and to the chicks.

These results suggest that captive-reared Kaka adapt well to release and supports Berry's (1998) findings. Captive-reared Kaka showed an ability to forage effectively on natural foods, had a high level of site fidelity, and formed stable population. Using captive-reared Kaka is an effective management tool, and the presence of an urban environment did not reduce the success of the release.

Contents

List of Figures, Tables, and Plates

Figure

Table

Plate