

SHORT NOTE

Observations of bellbird (*Anthornis melanura*) aggression toward North Island rifleman (*Acanthisitta chloris granti*) in a translocated population

S. J. WITHERS

School of Biological Sciences, University of Auckland,
Private Bag 92019, Auckland, New Zealand

While conducting observations on a translocated population of North Is rifleman (*Acanthisitta chloris granti*) in Cape Kidnappers and Ocean Beach Wildlife Reserve, Hawkes Bay, North Is, 4 instances of aggressive behaviour from bellbirds (*Anthornis melanura*) were observed between Dec 2008 and Jan 2009. Adult male bellbirds were the aggressors in each instance, but both adult and juvenile rifleman were targeted, and aggressive interactions were observed toward 3 different rifleman families. Adult rifleman could be distinguished by plumage and coloured leg bands. All banded individuals were at least 1 year old, and originated from the translocations (conducted from 28 – 31 Jan 2008 and 7 – 21 Feb 2008). As observations were during the 1st breeding season post-translocation, juveniles could be identified as those birds without coloured leg bands.

In each aggressive interaction, the male bellbird flew to the tree in which the rifleman were calling. He then approached and chased a single rifleman. The 1st instance of aggression involved an adult male rifleman with an active nest. The male rifleman had just left the nest after feeding its chicks. The bellbird flew toward the rifleman and chased it in circles through the tree and into the open air. This chase resulted in mid-air contact between the bellbird and rifleman, which appeared to cause the rifleman to drop toward the ground. The bellbird then abandoned the chase. The rifleman male was later found on a nearby branch and did not appear injured. In all other instances, juvenile rifleman were

targeted by male bellbirds. Each chase involved the bellbird attacking and chasing the juvenile for several seconds while the juvenile emitted a high-pitched repetitive call. At least 1 juvenile chase resulted in contact in mid-air. No apparent injury was witnessed as a result of any chases.

As a small bird, the rifleman is vulnerable to attack by a number of larger species. For example, the sacred kingfisher (*Halcyon sancta*) is known to prey on rifleman (Fitzgerald *et al.* 1986). South Is rifleman (*Acanthisitta c. chloris*) are subject to attacks from both tomtits (*Petroica macrocephala*) and brown creepers (*Mohoua novaeseelandiae*) (Gray 1969). However, this is the 1st documented instance of bellbird aggression toward the North Is sub-species of rifleman. Bellbirds and North Is rifleman are sympatric across the central plateau, and in portions of the Taranaki and East Cape areas and the Tararua ranges; however, their co-occurrence on off-shore islands is rare (Higgins *et al.* 2001).

Off-shore and mainland island sanctuaries often result in high densities of native avian species due to predator control and translocations to establish and supplement populations. It is possible that increased density of either species would increase the extent of aggressive behaviour of bellbirds toward rifleman. Translocation of rifleman is being carried out to halt further decline and has been utilised in both the South (Leech *et al.* 2007) and North Is (e.g. Boundary Stream to Cape Kidnappers; Little Barrier Is to Tiritiri Matangi Is; *unpubl. data*). As bellbirds are present on several offshore and mainland island sites that are potential future translocation sites for rifleman, such as the Hen and Chicken Is (Higgins *et al.* 2001) and Tawharanui Regional Park (Brunton *et al.* 2008), aggressive interactions between bellbirds

and rifleman should be considered in any plans for future movements of either species.

ACKNOWLEDGEMENTS

Thanks to Tamsin Ward-Smith, Dr. John McLennan, Alec Tuanui, Travis Cullen, Marcel Powell, Julian and Josie Robertson, Andy and Liz Lowe and Warwick and Juliet Hansen for providing access, support and information during field-work at Cape Kidnappers reserve. Thanks also to Mark Hauber and Stuart Parsons for comments on the manuscript.

LITERATURE CITED

Fitzgerald, B.M.; Meads, M.J.; Whitaker, A.H. 1986. Food of the kingfisher (*Halcyon sancta*) during nesting. *Notornis* 33: 23-32.

Gray, R.S. 1969. Breeding biology of rifleman at Dunedin. *Notornis* 16: 5-22.

Higgins, P.J.; Peter, J.M.; Steele, W.K. 2001. *Handbook of Australian, New Zealand and Antarctic Birds*. Melbourne, Oxford University Press.

Leech, T.J.; Craig, E.; Beaven, B.; Mitchell, D.K.; Seddon, P.J. 2007. Reintroduction of rifleman *Acanthisitta chloris* to Ulva Island, New Zealand: evaluation of techniques and population persistence. *Oryx* 41: 369-375.

Brunton, D.H.; Evans, B.A.; Ji, W. 2008. Assessing natural dispersal of New Zealand bellbirds using song type and song playbacks. *New Zealand Journal of Ecology* 32: 147-154.

Key words: North Is rifleman; *Acanthisitta chloris granti*; bellbird; *Anthornis melanura*; Cape Kidnappers Reserve; aggression; translocation; conservation management