

# THE CAPACITY OF RESTORED URBAN FORESTS TO SUPPORT NATIVE BIRDS

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Photo by Huatoki Native Plant Nursery.

**T**here is a growing conviction that urban green spaces may provide habitat for a diversity of native species, including those of conservation concern. Urban native forests, however, are overwhelmingly comprised of small, isolated patches with high edge-to-area ratios. Habitat restoration could increase the quantity and quality of habitat available to native birds in New Zealand cities. The ability of native birds to utilize restoration plantings will be influenced by a complex interplay of

landscape variables (e.g. patch size, distance to other areas of native forest), vegetation structure and composition, and competition and predation from introduced mammals.

**T**he purpose of my ongoing PhD research is to investigate factors influencing native forest bird site occupancy and use in urban restored forests and the time it takes for conditions to become suitable. We evaluated restoration success by investigating how species richness,

abundance, diversity and community composition of native forest birds vary along a restoration chronosequence, representing 71 years of forest development. We compared restored areas with two target reference systems – lowland, temperate native forest remnants within the city and beyond the city limits, as well as with a control system – un-restored urban forest. Finally, we used structural equation modelling to investigate the relative importance of vegetation diversity and structure, landscape pattern and composition

and pest relative abundance to native forest bird species richness and abundance.

**W**e will be able to report our findings once our analyses are complete and provide recommendations to urban green space managers on best practice to increase native bird populations.

**T**his research is supervised by Bruce Clarkson, John Innes, Otilie Stolte and Chaitanya Joshi. We are grateful for the generous support of Birds NZ, Puke Ariki, Forest & Bird, Trust Waikato and People, Cities & Nature.

