

## **Habitat and Distribution of Korimako/Bellbird in and around Christchurch**

*Heather North, Eric Spurr, Colin Meurk, Claire Newell, Kev Drew & Steve Ferriss (Landcare Research, Lincoln).*

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Mature indigenous forest generally provides good habitat for korimako populations in the long term, but understanding korimako habitat use and population sustainability in the fragmented, mixed vegetation of lowland Canterbury is more complex.

Korimako are widespread in Canterbury, indicating that the existing habitat cannot be altogether unsuitable. They are found year-round in the indigenous forest patches of Banks Peninsula and the Port Hills, and they visit urban gardens and parks, some exotic plantations, and isolated flowering gums on farms. So what constitutes “habitat” for this mobile and generalist species? Is the current habitat quality good, or are there actions that could be taken to improve habitat for more healthy and sustainable korimako populations?

Our project seeks to address these questions at a fundamental level, by collecting baseline data on korimako movement and habitat use in Christchurch and the Port Hills, and by developing spatially explicit models that describe the observed habitat preferences.

We suggest that korimako habitat requirements should be considered separately for the breeding season and the non-breeding (winter) season, since the needs are different in terms of plant species composition and structure, and habitat patch size and connectivity. In a fragmented rural/urban landscape, it may well be that no single site can meet year-round needs, so birds must move around the landscape for different resources. Compared to large-area natural forests, it is both more difficult and more critical to gain detailed understanding of minimum habitat requirements.

We present a map of korimako habitat use for three study sites in the Port Hills during the breeding season. We derive a quantitative description of breeding season habitat, and apply this to a fourth study site to predict habitat use by korimako there in the breeding season. These predictions are compared to independently collected field data on korimako presence in that study site. We also briefly outline data acquisition initiatives aimed at determining habitat use during the non-breeding season. These include colour-banding and reporting of korimako observations by members of the public. The habitat characteristics that have yet to be quantified are listed for further study.