Ewen lab hihi research update

January 2014

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ACCEPTED PAPERS, MEDIA & OUTREACH

- No new hihi papers published this month but we are close!

PRESENTATIONS, VISITS & NEWS *conference presentations, visits to and from group members etc*

- Congratulations to **Lydia** who has finished her Senior Honors Thesis on hihi through the University of Wisconsin Oshkosh. She received an A grade for her thesis and is now working on the manuscript and considering what to do next.
- **Antonia** has been busy working her MSc thesis (hihi disease risk analysis) into a manuscript.
- **Antonia** is now a PHD student at the University of Adelaide working with **Phill Cassey**
- **David** has similarly been working his MSc thesis into a manuscript from his work on supplementary feeding on Kapiti.
- **Donal** continues his fantastic work with the hihi on Tiritiri Matangi Island.

FEATURE STORY: Abstract from Lydia's Honors Thesis titled "Effect of supplementary feeding on female hihi (*Notiomystis cincta*) reproductive success at Maungatautari Ecological Island, Waikato, North Island, New Zealand.

Hihi (Notiomystis cincta) are nectarivorous birds, originally found throughout mature forests in the North Island of New Zealand. The effects of habitat loss and introduced mammalian predators caused this species' distribution to shrink to Little Barrier Island by the 1880s. Translocation of hihi from Little Barrier Island to predator-free reserves such as, Tiritiri Matangi, Karori, Kapiti Islands, Bushy Park, and Maungatautari Ecological Island has been successful in establishing secondary populations. The majority of these sites require extensive management. This involved providing nest boxes and supplementary food in the form of sugar water, because large portions of the forest are in early stages of regeneration. Studies at some of these sites have shown that supplementary feeding improved adult survival and female reproductive success. Maungatautari Ecological Island differs from other reserves in that the 3,400 ha of mature forest provides adequate natural nest cavities and potentially a more reliable year-round food supply. The focus of this study was to evaluate whether supplementary feeding of sugar water affects female hihi reproductive success at Maungatautari Ecological Island. During the 2012/2013 breeding season, 17 females nesting attempts were closely monitored to determine the number of fledglings produced by each individual. The females naturally divided themselves into non-feeder users and feeder users, which tended to live within close proximity of the feeders. The 45 fledglings produced by the 17 females included, 27 fledglings from feeder users (an average of 3.4 fledglings/female) and 18 fledglings from non-feeder users (an average of 2.5 fledgling/female). None of the feeder-using females had failed clutches, while 7 out of the 16 clutches failed in non-feeder users. These results suggest that feeder use improves reproductive success by decreasing the probability of nest failure, and increasing the number of young produced per female.

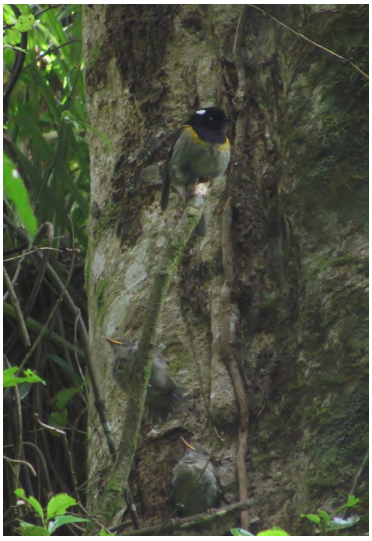

Photo: Lydia R. Doerr

FUNDING *our major funders and new funding news*

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CURRENT AND PAST FUNDING – thank you!

+ British Research Council + Royal Society + Leverhulme Trust + Department of Conservation + AXA-fund + NERC + SoTM + ASAB + Massey University + Wesfarmers Industrial and Safety NZ Ltd.

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