

Ewen lab hihi research update

November 2014



ACCEPTED PAPERS, MEDIA & OUTREACH

- **Patricia** has a paper accepted for publication in Conservation Genetics, details are: Grueber, C.E., Knafler, G.J., King, T.M., Senior, A.M., Grosser, S., Robertson, B., Weston, K.A., Brekke, P., Harris, C.L.W. & Jamieson, I.G. Toll-like receptor diversity in 10 threatened bird species: relationship with microsatellite heterozygosity.

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

- **John** visited Maungatautari to meet up with MEIT staff and **Lydia** to discuss hihi monitoring and management.
- **Lydia** has successfully completed her monitoring work on the Maungatautari hihi population.
- **Lydia** has been visiting **Doug** who has been helping with analysis of the monitoring data from Maungatautari.
- **Rose** and **Victoria** were leaders on an Auckland Zoo ethics application for RFID PIT tags for hihi.
- **Donal** and **Rachel** and Richard Jakob-Hoff have been testing RFID PIT tags on hihi (see feature below).
- **John** and **Patricia** presented hihi work and hihi PHD projects to this years intake of NERC DTP students from UCL.
- **Anna** has a PHD studentship advertised at the University of Auckland – see <https://asanture.wordpress.com/>

FEATURE STORY: New jewellery for the hihi on Tiri – by Victoria Franks

Those who have been out to Tiri recently may have noticed a new looking leg band on hihi, or even come across Donal Smith and Rachel Shepherd working hard on changing some of the coloured leg bands. After some time of frustration with band loss, we are moving toward a new band and method for monitoring the hihi population. The new bands are similar, but slightly longer and include a radio frequency identification (RFID) passive integrated transponder (PIT) tag integrated within the plastic. A trial has been conducted and overseen by Auckland Zoos ethics committee, with field observation by Auckland Zoo's Richard Jakob-Hoff.

This transition is being done for a multitude of reasons. First, we hope these bands will stay on and reduce the problems of band loss on re-sighted birds during our population surveys. Second, they may offer us an altogether easier approach to population monitoring when paired with readers placed at communal feeding stations. These readers will automatically log bird identities, allowing for highly detailed population monitoring. Third, they may eventually prove to be a useful technology to exclude non-band wearing bellbirds from hihi feeders (who currently consume a substantial amount of food and dominate hihi!).

Fourth, and of particular interest (to me, as a new PhD student), is that they will provide a tool that allows for far greater insight into hihi social behaviour. In particular, I am interested in investigating the relationships that juveniles form when in groups (crèches) during their first stages of independent life, and how these affect the way they learn new survival behaviours. RFID PIT tag readings at feeders will allow me to do this on a scale that would not be possible by observation alone. Ultimately, I hope that this will add another piece to the puzzle when assessing the best ways to promote hihi survival. It's also going to be a really interesting project and I can't wait to get started!



FUNDING *our major funders and new funding news*

CURRENT AND PAST FUNDING – thank you!

+ British Research Council + Royal Society + Leverhulme Trust + Department of Conservation + AXA-fund + NERC + SoTM + ASAB + Massey University + NZ Safety Ltd + Royal Society of New Zealand Marsden Fund.

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