

Ewen lab hihi research update

February 2014



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*

- **John** is organising the 2014 hihi recovery group meeting with plans for it to be in early April at Maungatautari.
- **John** is continuing to coordinate the writing of the hihi best practice management handbook that **Leila** did major work on up until her new position.
- **David** is submitting his first manuscript from his MSc along with co-authors **Ali**, Marcus Rowcliffe (IOZ) and **John** – it is the feature story for this month, see below.
- **Donal** has finished up on Tiritiri Matangi island for the summer and has done a superb job.
- **Doug** has a new MSc student **Julia Panfylova** who will be working at Bushy Park for her research thesis.

FEATURE STORY: Abstract from David's manuscript titled "Targeted management buffers negative impacts of climate change on a threatened species"

In order to mitigate the threats posed to threatened species by climate change managers will need to adapt and develop new strategies to cope with an increasingly dynamic environment. Supplementary feeding (SF) is a commonly used form of conservation management that may help buffer the impacts of climate change. However, the role of SF as an adaptation tool to climate change is yet to be investigated. Here we modelled the relationship between weather (average temperature and total precipitation) and vital rates (survival and recruitment) of an offshore island restricted bird population with rarely available long term demographic data under periods of little or Ad libitum SF. We then projected this populations' responses under each form of management using several climate change scenarios. We found that *Ad libitum* SF buffered the population against heavier rainfall and more stochastic precipitation patterns, although no buffering effect on temperature was detected. Our results highlight that current SF can mitigate some aspects of climate change but also warn that currently successful management interventions may not remain so in the future. We call for ongoing critical evaluation of management measures and suggest novel adaptation solutions are required for species with limited opportunity for dispersal.

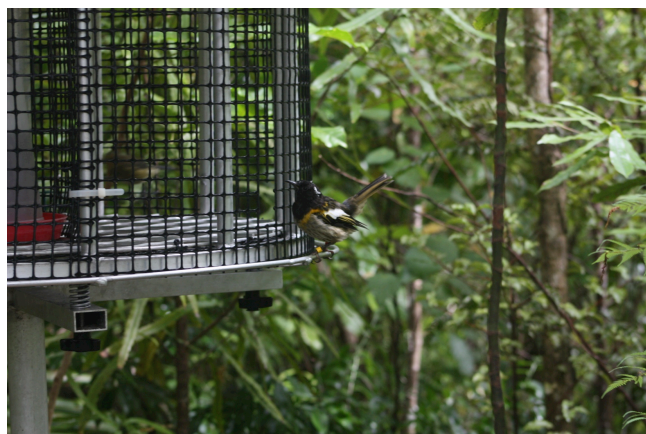


Photo: Male hihi at feeder Kapiti island

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 + Wesfarmers Industrial and Safety NZ Ltd.

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