

# Ewen lab hihi research update

February 2010



## **ACCEPTED PAPERS AND MEDIA** *publications in scientific journals, popular science and media coverage*

• Not directly hihi BUT we think very relevant to hihi management..

Sutherland, W.J., **Armstrong, D.P.**, Butchart, S.H.M., Earnhardt, J., **Ewen, J.G.**, Jamieson, I., Jones, C.G., Lee, R., Newberry, P., Nichols, J.D., Parker, K.A., Sarrazin, F., Seddon, P., Shah, N., Tatayah, V. (2010). Standards for documenting and monitoring bird reintroduction projects. *Conservation Letters* (*in press*).

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

- John & Doug visited Maungatautari to discuss PhD plans with Kate Richardson (see funding section) and to chat about hihi monitoring.
- Aliénor presented a talk titled “Modelling the dynamics of translocated populations” at the IoZ 2010 Student Conference.
- Patricia gave a seminar at DICE (University of Kent) on her PhD results.

## **FEATURE STORY** *a summary of a recent output or project description*

### **Its moving time! Hihi translocations from and to Tiritiri Matangi**

This year marks the biggest harvest of juvenile hihi from Tiritiri Matangi to date. 85 individuals have been caught and are awaiting disease screening results before (hopefully) most leave the island in early March with a planned 40 heading to Mt Maungatautari near Hamilton, 35 to Kapiti Island and 5 females to Karori Wildlife Sanctuary in Wellington. This move was agreed by the hihi recovery group and is funded by Wesfarmers sponsorship. In addition, Air New Zealand will fly the birds to Wellington for free. Following this translocation is a move of hihi from the remaining remnant population on Little Barrier to Tiritiri Matangi (in two weeks time). This second translocation is designed to test the feasibility and success of genetic rescue. With our detailed monitoring of the Tiritiri Matangi population we can follow the fate of new birds and their genes into the population, plus the effect they will have. Stage one is following how well newly arrived individuals can survive and integrate within an already established population. Stage two is tracking propagation of genes into the population. Stage three is measuring any genetic rescue. Patricia Brekke has found evidence of inbreeding depression on Tiritiri Matangi in her PhD. Patricia has also been the key in generating a detailed pedigree of the population. Together we are working on this current project. Funding for the Little Barrier to Tiritiri Matangi translocation is 50% our research funds and 50% SoTM Inc. Ideas surrounding genetic management of reintroduced populations have been slow to develop within New Zealand (and elsewhere) and these recent moves are in large part linked to reducing the unavoidable increases in inbreeding in small populations. The slow uptake on genetic management globally may seem surprising but is not all that new – Darwin wrote in 1896 “*that any evil directly follows from the closest inbreeding has been denied by many persons; but rarely by any practical breeder.*” The negative demographic effects of inbreeding and the demographic response to genetic rescue will be an important component of our research. It will take us a while to track the outcomes of this experiment but stay tuned for updates!



Hihi Translocation Team, Tiritiri Matangi Feb 2010: (from left to right) Jan Olsen, MEIT; Katherine De Silva, volunteer; Morag Fordham, SoTM; Luke Vyle, volunteer; Jeremy Thomas, DoC; Matt Gribble, hihi RA; Vic Thackray, DoC; Chris Smuts Kennedy “Smuts”, MEIT; Kevin Parker, Massey University; Cheridan Mathers, (front) MEIT; John Ewen, IoZ; Jillana Robertson, MEIT; Leila Walker, Cambridge/IoZ; Kate Richardson, Massey University; and Greg the Takaha!

MEIT = Maungatautari Ecological Island Trust  
DoC = New Zealand Department of Conservation  
SoTM = Supporters of Tiritiri Matangi Inc.

Photo and text: John Ewen

## **FUNDING** *our major funders and new funding news*

### **NEW FUNDING!!**

• Kate Richardson has been awarded a PhD Scholarship through Massey University and will start a PhD project on hihi later in 2010.

### **CURRENT AND PAST FUNDING – thank you!**

+ British Research Council + Royal Society + Leverhulme Trust + Department of Conservation + AXA-fund + NERC + SoTM + ASAB

## **STAFF AND STUDENT CONTACTS**

### **Permanent Staff:**

- Professor Doug Armstrong
- Dr John Ewen
- Dr Phillip Cassey

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### **Post doctoral Research Staff**

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### **PhD Students**

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