

Birds can see colours – as sure as eggs is eggs

Birds can detect foreign eggs in their nest by the perceived colour of the shell, according to an international research team.

In a study of song thrushes in New Zealand and Europe, the birds recognised small changes in the way the egg reflects ultraviolet or short (blue) wavelength light and ejected suspect eggs.

The researchers, including Dr Mark Hauber of the University of Auckland, used data on painted birds' eggs in a range of colours from blue overtones to reddish tints.

The birds detected the eggs that were different colours to their own and ejected them, but only when analysed from the sensory capabilities of the avian visual system and not when judged by the human eye.

Dr Hauber, of the School of Biological Sciences, said: "Birds have very different visual senses to humans, for example they can see ultraviolet wavelengths where we cannot.

"Those birds which parasitically introduce their eggs into the nest of other birds – such as cuckoos - dramatically increase the amount of time and energy needed to provision the nest.



Dr Mark Hauber with a takahe

"Our research shows that the peculiar abilities of birds to perceive broad-spectrum colour is vital to recognise their own eggs, and can identify small differences and wavelengths that humans wouldn't be able to distinguish."

The research was published online in *Biology Letters*.

Dr Hauber is one of the first New Zealand recipients of a Human Frontier Science Program (HFSP) grant.

The HFSP funded the study along with the University of Auckland Research Council and the Leverhulme Trust.

The study was a collaboration with Drs. P. Cassey, University of Birmingham (UK), M. Honza, the Academy of Science of the Czech Republic and T. Grim, Palacky University (Czech Republic).

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1 October 2008

Project, Emerging Researcher First Grant, Feasibility Studies, Programme Contracts and Programme Extensions

(Registration)

1 October 2008

Pacific Mental Health Workforce Awards

10 October 2008

Pacific Health Workforce Awards

10 October 2008

Project, Emerging Researcher First Grant, Feasibility Studies, Programme Contracts and Programme Extensions

(Full Application)

3 November 2008

Māori Health Research Career Development Awards

10 November 2008

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10 November 2008

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