

## Climate change and Australia's avifauna

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As recently as 2001, responses of natural systems to rising temperatures and rainfall changes in the southern hemisphere were largely undocumented. Since then, considerable effort has been undertaken in Australia to understand current and potential impacts of climate change on the region's avifauna. Recent studies have concentrated on changes in migration or in breeding timing and success, as well as distributional modelling. This talk will concentrate on changes we have already observed. In the case of migration timing, changes include: south-western Australia, where migration timing in waterbirds was more closely related to changes in local rainfall patterns than to temperature changes, and south-eastern Australia, where short to middle distance migrants arrived earlier and departed later over time, extending the time spent at their breeding grounds. Links have also been discovered between timing and success of breeding in birds, including a near-continental study of breeding in the Masked Lapwing, a species likely to be little influenced by changes in climate over most of its range; the endangered Helmeted Honeyeater, where climate change is not expected to increase its breeding success; and the Australian Magpie, where breeding is likely to be impacted by changes in climate.

Despite considerable effort, documented Australian studies cover only a small number of species, lack detailed information on local, regional, and national scales (particularly in western and central Australia and the tropical north), and highlight a paucity of knowledge on the impacts of observed changes in climate on species and systems on which birds depend, such as invertebrates, amphibians, reptiles, and plants. Given the enormity of the problem, it is critical that we reinvigorate past monitoring programs and initiate new ones, while reducing as many of the non-climate change threats as possible. Engaging the community is one way of achieving this.

**Wednesday 28 Oct 2009, 12.05 - 1pm**  
**Zoology Seminar Room**  
**Room 350, Biol Sciences 1**

**All welcome**



Lynda is a senior scientist within the Centre for Australian Weather and Climate Research (Bureau of Meteorology). She specialises in climate research and its interface with Australian flora and fauna, particularly birds. She has published extensively on such topics as: phenology, migration, species abundance, climate variability and change, climate extremes, and forecasting; including 20 years of research on the Little Penguin. She is a project leader for the National Ecological Meta Database and the citizen science project Climate Watch, in partnership with the Earthwatch Institute, as well as a contributing author to the Nobel Peace Prize winning Intergovernmental Panel on Climate Change 4<sup>th</sup> Assessment Report (Impacts, Adaptation and Vulnerability).

For further information about the seminar series contact:

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