

Warm springs, early laying don't harm bird flocks

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The blackbird (*Turdus merula*). Credit: Jim McLean

A new study has found that many bird species lay their eggs earlier when spring is warmer, but that the timing has no damaging impact on their overall numbers.

The study, led by PhD student Nina McLean from The Australian National University (ANU), helps scientists to better understand how changes in [bird behaviour](#) due to [climate change](#) can impact [bird populations](#).

"It is often assumed that changes in the timing of events such as egg laying will have consequences for their reproduction and [population dynamics](#). We show that this isn't always the case," said Ms McLean, from the ANU Research School of Biology.

Using volunteer-collected data from the British Trust for Ornithology, the authors studied how climate change affected 35 species of birds in the UK over 48 years from 1966 to 2013.

The study found that the birds laid their eggs earlier when spring was warmer, and that this led to improved reproduction in many species.

Researchers were surprised to find that this did not lead to increases in their population sizes.

"We found that the number of fledglings increased when birds laid their eggs earlier, but that this had no effect on their population sizes. So we think that there is something else coming into it," she said.

"Perhaps earlier laying decreases the survival of the parents or maybe the increases in chick numbers leads to more predation."

Ms McLean said further research was needed to investigate what determines whether the population sizes of birds are or are not affected by climate driven changes in the timing of egg-laying.

She said understanding when changes in egg laying will or won't go on to affect population sizes can help scientists develop more effective bird conservation strategies.

More information: Nina McLean et al. Predicting when climate-driven phenotypic change affects population dynamics, *Ecology Letters* (2016). [DOI: 10.1111/ele.12599](https://doi.org/10.1111/ele.12599)

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