

Many North American birds may lose part of range under climate change scenarios

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Over 50% of nearly 600 surveyed bird species may lose more than half of their current geographic range across three climate change scenarios through the end of the century in North America, according to a study published September 2, 2015 in the open-access journal *PLOS ONE* by Gary Langham and colleagues from the National Audubon Society.

Human-induced [climate change](#) is increasingly recognized as a fundamental driver of biological processes and patterns, and historically, climate shifts have led to shifts in the geographic ranges of many taxa. To better plan for potential effects due to climate change, scientists using the North American Breeding Bird Survey and Audubon Christmas Bird Count employed correlative distribution modeling, to assess geographic range shifts for nearly 600 North American bird species during both the breeding and non-breeding seasons under a range of future [climate change scenarios](#) through the end of the century.

The authors found that over 50% of bird species surveyed are projected to lose more than half of their current geographic range across three climate change scenarios. For over 120 species, loss occurs without range expansion; whereas for over 180 species, loss is coupled with potential to colonize new replacement range. The authors found that current conservation prioritizations do not correspond to their projected estimates of climate sensitivities. The authors suggest that these results demonstrate the need to include climate sensitives into current conservation planning and to develop adaptive management strategies that accommodate shrinking and shifting geographic ranges.

"We were shocked to find that half of the [bird species](#) in North America are threatened with climate disruption," says Gary Langham, Chief Scientist at National Audubon. "Knowing which species are most vulnerable allows us to monitor them carefully, ask new questions, and take action to help avert the worst impacts for birds and people."

More information: *PLOS ONE*

[dx.plos.org/10.1371/journal.pone.0135350](https://doi.org/10.1371/journal.pone.0135350)

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