

Study shows birds in Finland breeding earlier and having shorter breeding seasons due to global warming

July 21 2020, by Bob Yirka



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A team of researchers from Finland and the U.S. has found that boreal birds in Finland have been starting their breeding seasons earlier and

have also been shortening their breeding seasons as temperatures in Finland increase due to global warming. In their paper published in the *Proceedings of the National Academy of Sciences*, the group describes their analysis of data from multiple studies to learn more about how birds are adapting to climate change and what they learned from it.

As the planet continues to warm due to manmade [greenhouse gas emissions](#), researchers around the world continue to study how plants and animals are adapting to the changes. In this new effort, the researchers wondered how boreal [birds](#) (those that live south of the Arctic Circle) are faring as temperatures in Finland have been rising.

To learn more about how birds in Finland have been reacting to warming temperatures, (Finland is up 0.8 to 1.6 degrees Celsius over the past half-century) the researchers pulled data from the Finnish Museum of Natural History's database. The museum has been adding records describing birds in Finland and their behavior for 43 years. There, they found information on over 820,000 birds and their nesting records, which included 73 species. The researchers went into the study with the assumption that the most obvious reaction to an increase in temperature for birds would be to start breeding (mating and egg laying) earlier to take advantage of earlier food availability. For that reason, they focused their analysis of the data on nesting start dates. Suspecting that the birds may also have begun to shorten their breeding period due to [warmer temperatures](#), the researchers looked at data that described [breeding season](#) duration.

They found that their assumptions were correct—boreal birds in Finland have been moving up the start date for their breeding season by 4.6 days on average over nearly the past half-century and have been shortening their seasons on average 1.7 days. They also found that birds with shorter migrations (and those who did not migrate at all) tend to shorten their breeding seasons more on average than the other birds.

More information: Maria H. Hällfors et al. Shifts in timing and duration of breeding for 73 boreal bird species over four decades, *Proceedings of the National Academy of Sciences* (2020). [DOI: 10.1073/pnas.1913579117](https://doi.org/10.1073/pnas.1913579117)

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