

Research Review

A Summary of Recent Scientific Research on Bluebirds and Other Cavity Nesters

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Should I Stay or Should I Go?

Bluebirds are in the thrush family, cousins to the American Robin. A distant cousin is the Eurasian Blackbird, which is different from the birds that we call blackbirds in North America, which are in a different family (Icteridae). Like bluebirds, Eurasian Blackbirds exhibit partial migration, in which some individuals in a population migrate south for the winter but some stay on the breeding grounds. Because they are both thrushes, and they both exhibit partial migration, results of a study on migration in Eurasian Blackbirds might shed some light on migration in bluebirds.

Flying hundreds (or thousands) of miles each year between the breeding grounds and the wintering grounds is risky. Bad weather, unreliable food supplies, and changing habitats all increase the risk for migrants. But staying on the wintering grounds can be risky, too, especially due to cold weather and transient food sources. Like many things in life, the decision of whether to stay or migrate is a tradeoff.

Eurasian Blackbirds that stay on the breeding grounds all winter are able to claim the best territories in the spring, since they are already present when the migrants return. On the other hand, the migrants have a higher survival rate over the winter, since they've enjoyed the comparative warmth of more southern regions. On average, a migrant will live longer and

have more years to breed, but they will be locked out of the best breeding territories each year. The fact that both migration strategies exist among many species (including bluebirds) suggests that neither strategy is consistently better than the other—conditions favor migrants some years, and year-round residents other years.

Daniel Zúñiga, Yann Gager, Hanna Kokko, Adam M. Fudickar, Andreas Schmidt, Beat Naef-Daenzer, Martin Wikelski, and Jesko Partecke. 2017. Migration Confers Winter Survival Benefits in a Partially Migratory Songbird. *eLife* 6:e28123.

Woodpeckers to the Rescue

Introduced, exotic species are notorious for wreaking havoc on native species and ecosystems. Bluebirders need look no further than the House Sparrow for an example. Among insects, the emerald ash borer is an egregious example. Introduced to North America around 2000, this Asian beetle has spread throughout a large chunk of the continent, feasting on millions of native and ornamental ash trees and causing billions of dollars in damage along the way.

In Asia, woodpeckers are significant predators on the beetle, and that predation seems to be occurring in North America, too. The sheer numbers of beetles appears to be benefiting the birds. In the areas occupied by the beetle, populations of woodpeckers (Hairy, Downy, Pileated, Red-headed, and Red-bellied) and the White-breasted Nuthatch have increased markedly in the years since arrival of the beetle. This increase is believed to be partly due to the increase in numbers of dead trees available for nesting by woodpeckers but also by the availability of so many fat, juicy beetle larvae in the winter.

The hope is that woodpeckers and nuthatches will continue to increase in numbers, and exert some control over the numbers of emerald ash borers, thereby slowing the beetle's destructive march across the continent.

Walter D. Koenig and Andrew M. Liebhold. 2017. A Decade of Emerald Ash Borer Effects on Regional Woodpecker and Nuthatch Populations. *Biological Invasions*. doi:10.1007/s10530-017-1411-7.



Eurasian Blackbird (*Turdus merula*)