

Bird Lore: Migration is complicated

By Dan Brauning Mar 5, 202

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The northern flicker is a woodpecker that is an example of a Pennsylvania species that is a partial migrant.

- PHOTO COURTESY OF Jake Dingel/Pennsylvania Game Commission



Eastern bluebirds are an example of a Pennsylvania species that is a partial migrant.

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American robins are considered partial migrants.

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Bird migration is a marvel. Some birds weighing as little as a penny complete annual round trips as many as thousands of miles apart. How do they do it? We are continuing to learn about how, but we know that it includes a complex combination of stellar maps, detecting the earth's magnetic fields and response to weather. And, migration can mean a lot of different things.

One migratory strategy birds use is called partial migration. Here is how we most often experience this: You saw a flock of American robins in a treetop on a snowy February morning (yes, one of many this past winter). As an eternal optimist you might have thought: "Look, a sign of spring. Robins have arrived." That is a frequently repeated thought.

However, maybe that's not true. Sorry to burst your bubble.

While the influx of robins in March is a sign of spring, other robins eke out a living on berries through central Pennsylvania's long winter, and we sometimes encounter those hearty individuals well before spring's arrival.

American robins are really only partially migratory. Most of the large influx of individuals that show up in our yards with the retreating snow did spend the winter to the south, migrating north with the growing day-length, increasing food availability, and the warming countryside. But some remained here through the winter, often in small flocks. Those are the robins we see during the winter, until late February, not early migrants.

Lots of species follow this pattern. Blue jays, crows, bluebirds and northern flickers are just some of the species in which migration may be an individual choice.

This is different than the irruptive behavior that we observed in winter finches this year. Irruptive behavior is erratic, in response to an unusual lack of food.

Partial migration on the other hand, happens every year, with some individuals taking a chance at surviving the winter where they are, against the risks of finding a winter home down south. There may be genetic factors that determine the individual bird's behavior, but it results in individuals of the same species using different strategies.

An analysis of leg-banded robin observations found that many wintering birds had nested in areas close by — they hadn't migrated. This is classic partial migration, with other individuals of the same species coming and going much larger distances between winter and spring breeding areas.

But it can be difficult to differentiate. We normally can't distinguish individuals of a species. A bluebird investigating a box in the spring looks just like one in the winter. It's most likely that the bluebirds we see during winter and spring/summer are actually both migrants. Blue jays wintering in Pennsylvania might have been raised further north and will return north in the spring, while our local breeders come up from the south.

Another form of migration is leap-frog, with different groups of a given species hardly interacting. Without careful studies that involve marking and following individual birds through the year, it is impossible to be certain if the birds we are seeing are the same individuals through the year.

So to sum it up, migration is complicated. Some species fully migrate and leave our area in winter. Lots of different strategies are used by the diversity of species around us. A few species are truly year-round residents, with the same individuals remaining year-round. Some species partially migrate and some species leap-frog.

Even if you generally know the migratory pattern of a species, recognize that pattern can vary with weather, food availability, etc.

Migration adds tremendously to the excitement of birding through the year. Geese and some raptors are among the earliest travelers, with warblers and flycatchers to follow.

The majority of insect-eating songbirds in our area are true or complete migrants, in which almost all individuals must move away from our frigid winters to warmer climates in search of food.

But with the diversity of species here, life-strategies don't always fall into these nice, neat categories. Not all individuals of a species follow the same pattern. There's variation among the tribe.

Birds amaze us, not only for their capacity to undergo such migration, but as we look deeper, at the variety of strategies employed, even by the same species. If you want to learn about a real surprise, look up "reverse migration" used by our local Canada geese.