

Three Billion Canaries in the Coal Mine

By [Margaret Renkl](#) | Contributing Opinion Writer



A Magnolia Warbler found recently on a suburban lawn in the northeast.

NASHVILLE — During the nearly quarter-century that my family has lived in this house, the changes in our neighborhood have become increasingly apparent: fewer trees and wildflowers, fewer bees and butterflies and grasshoppers, fewer tree frogs and songbirds. The vast majority of Tennessee is still rural, and for years I told myself that such changes were merely circumstantial, specific to a city undergoing rapid gentrification and explosive growth. I wasn't trying to save the world by putting up nest boxes for the birds or letting the wildflowers in my yard bloom out before mowing. I was hoping only to provide a small way station for migrating wildlife, trusting they would be fine once they cleared the affluence zone that is the New Nashville.

I was wrong. A new study in the journal *Science* reports that nearly 3 billion North American birds have disappeared since 1970. That's 29 percent of all birds on this continent. The data are both incontrovertible and shocking. "We were stunned by the result," Cornell University's Kenneth V. Rosenberg, the study's lead author, told *The Times*.

This is not a report that projects future losses on the basis of current trends. It is not an update on the state of rare birds already in trouble. This study enumerates actual losses of familiar species — ordinary backyard birds like sparrows and swifts, swallows and blue jays. The anecdotal evidence from my own yard, it turns out, is everywhere.

You may have heard of the proverbial canary in the coal mine — caged birds whose sensitivity to lethal gasses served as an early-warning system to coal miners; if the canary died, they knew it was time to flee. This is what ornithologists John W. Fitzpatrick and Peter P. Marra meant when they wrote, in an opinion piece for *The Times*, that “Birds are indicator species, serving as acutely sensitive barometers of environmental health, and their mass declines signal that the earth’s biological systems are in trouble.”

Unlike the miners of old, we have nowhere safe to flee. Nevertheless, the current administration has been rolling back existing environmental protections faster than environmentalists can respond to the ceaseless bad news.

On the other hand, we’ve been here before. Not here, precisely, but close enough to have seen what can happen when large numbers of people demand action. Rachel Carson’s “*Silent Spring*” — which was published on September 27, 1962, almost exactly 57 years ago — made readers understand the cumulative effects of pesticides on the food chain. The resulting outcry led to a ban on DDT, which in turn was instrumental in allowing raptors like bald eagles and peregrine falcons, which exist at the top of their own food chains, to recover. One bit of good news in the new report in *Science* is that both of those species are now thriving.

With climate deniers occupying both the White House and the United States Senate, we seem to be a long way from achieving anything like the kind of bipartisan effort that led to the recovery of the bald eagle. But as avian research-and-advocacy organizations have pointed out, we are not entirely powerless. While continuing to pressure our elected leaders to do right by the planet before it convulses completely, we can also tend our own gardens with an eye toward giving birds a better chance:

- Maintain a brush pile so songbirds have a place to hide from predators.
- Let dead trees stand as nesting sites for cavity-nesting birds and a food source for insects. The insects will in turn provide protein for birds.
- Plant fruit-and-nut-bearing trees and berry-producing shrubs. Native birds evolved to eat native plants, so make sure everything you plant is native to your area.
- Swear off herbicides and insecticides, in your yard and refrigerator. A chemical-free yard provides safe food sources for birds, and organic farms provide the same benefits on an agricultural scale.
- Keep fresh water readily available. In a drought, it’s easier for birds to find food than clean water.
- Use traps instead of rat poison, many forms of which move up the food chain to raptors, like owls and hawks, that eat rodents.
- To protect existing forests, buy sustainably sourced wood and paper products, eat less beef, drink shade-grown coffee.
- Keep house cats indoors. Even well-fed cats kill birds.
- Reduce bird collisions with glass by keeping screens up year-round or installing guards that interrupt reflections.
- Eliminate single-use plastics, many of which end up in the oceans where seabirds consume them at lethal levels.

These efforts alone won’t save North American birds. A true solution will require concerted effort: the political will to address climate change, conservation strategies that restore habitat, policies that

consider wildlife needs as well as human needs. More than anything, it will require a comprehensive understanding that wildlife needs are human needs.

None of this will happen without a wholesale shift in this country's politics, and while that might seem impossible, it isn't. The Republican Party today may be little more than a political wing of the fossil-fuel industry, but it needn't be that way. The Environmental Protection Agency that President Trump seems intent on destroying was created by President Richard Nixon, a Republican.

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