

Did We Actually Lose 3 Billion Birds? Part I

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

Recent headlines popped up everywhere saying that we've lost 3 billion birds since 1970 in North America. The headline is rather startling. The cynical Chuck immediately asks how you can misplace 3 billion birds. But the reality is that the headline is quite correct and something that I have observed in my nearly 60 years of birdwatching. Now, if someone is looking for one single cause, the proverbial smoking gun, all you have to do is look in the mirror. Humans are the cause but it's a very complex situation.

Bird populations are quite dynamic. Many of the birds, especially what most folks call songbirds, that hatched this year won't make it to next summer. Mortality rate is very high. Most population estimates for birds are therefore made on birds returning to the breeding grounds after winter. The research paper that prompted the headlines is long, complex and full of statistics. It was published in Science magazine which has a very rigorous review process. I've printed out the paper (all 67 pages of it) and have started going through it. Unless you really like numbers and statistics, don't try to read it! Bottom line though is that I have no doubt that it is accurate and reflects my own observations over the decades.

The paper was studying 529 species that breed in the USA and Canada. 57% of the species showed declines, 43% showed increases. The losers though were far more than the gainers. Two of the species that showed some of the biggest losses are non-native species, the House Sparrow and the European Starling. While populations of these species declined significantly, there's still plenty of them around much to our chagrin.

Some of the other big losers were species many we can see in our backyard, like Juncos, Pine Siskins, White-throated Sparrows and Red-winged Blackbirds. Others are species that most people have never seen, or perhaps even heard of like Blackpoll Warbler, Savannah Sparrow and Horned Lark. The three billion bird number comes from the estimated population of all 529 species from spring of 1970 and then again in the spring of 2017. It was based on surveys performed each year and also, for the past ten years, estimated biomass of birds registered in migration on weather radar. (Yes, you can actually see bird migration on radar.)

Some bird groups, namely waterfowl (ducks and geese) and raptors (hawks) are doing pretty well and populations are increasing. But the increase is insufficient to counteract all the loss happening in other species. Also to be clear, the three billion birds (2.9 to be precise with a confidence interval of 2.7 to 3.1 billion) represents 29% of the 1970 abundance. Of course we still have birds around but not as many as in 1970. Nearly 1 in 3 of the birds that we were seeing in the spring of 1970 are gone.

Some people, perhaps many people, will say, "So what if a tiny little warbler goes extinct." What those folks fail to realize is that we are all part of the same ecosystem. Roger Tory Peterson once said that "birds are the litmus paper of the environment." 19th century miners took canaries into the mines as an early warning detector of unhealthy air. We need to pay attention.

Specifically, we are looking at human induced impacts of climate change, altered ecosystems, namely development of and fragmentation of forests and grasslands. We're also talking about cats ranging outdoors that kill somewhere between 2 and 3 billion birds annually. Any structure that we build becomes a potential bird killer as birds fly into it.

Next week - Part II. What can we do about it?