



**Patuxent Wildlife Research Center
North American Breeding Bird Survey (BBS)**

In the mid-twentieth century, the success of DDT as a pesticide ushered in a new era of synthetic chemical pest control. As pesticide use grew, concerns about their effects on wildlife began to surface, as epitomized by Rachel Carson in SILENT SPRING. Local studies had attributed some bird kills to pesticides, but it was unclear how, or if, bird populations were being affected at regional or national levels. In 1966, responding to this concern, researchers at the Patuxent Wildlife Research Center initiated the North American Breeding Bird Survey to monitor bird populations over large geographic areas.

What is the BBS?

The BBS is a multinational, long-term, continental avian monitoring program designed to track the status and trends of North American bird populations. The US Geological Survey leads the effort in collaboration with Environment and Climate Change Canada and the Mexican National Commission for the Knowledge and Use of Biodiversity.



How does the BBS work?

Each year during the height of the avian breeding season thousands of citizen scientists, skilled in avian identification, collect bird population data along roadside survey routes.

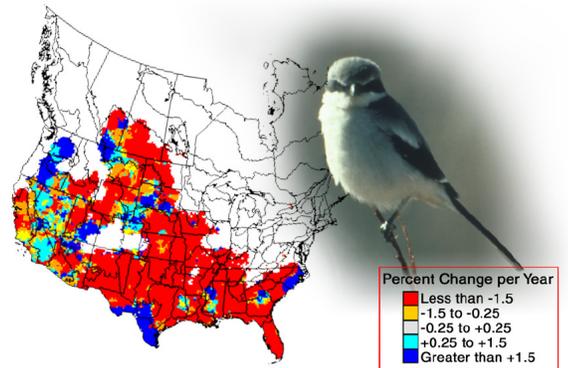


- Each survey route consists of 50 point count locations.
- At each survey location a 3-minute avian point count is conducted.
- During the count, every bird seen within a 0.25-mile radius, or heard, is recorded.
- Surveys start one-half hour before local sunrise and take about 5 hours to complete.
- Over 4800 survey routes are randomly located across the continental US, Canada and northern Mexico.

How are the data used?

BBS data provide an index of population change data that can be used to estimate population trends and relative abundances at various geographic scales and time periods. These data are used to assess bird populations and inform national and regional avian conservation and management actions.

- Trend estimates are provided for over 500 bird species.
- Raw and summarized data are provided for over 650 bird species.
- Results are used extensively by federal and state land-use and conservation policy planners along with other indicators to assess species management priorities.
- BBS data identified critical declines of neotropical migrant and grassland species galvanizing conservation action for these taxa.
- Over 500 peer-reviewed publications have used BBS data as the primary means to answer a research question.



Loggerhead Shrike trend map, 1966 - 2015

