

Introduction to North American Raptor Conservation Species Assessments

We provide species assessments based on trend analyses through 2019 from 76 raptor migration count sites across North America spanning from Canada to Panama. Synthesis of trends at the continental and regional scales can highlight species and/or regions that warrant a closer look in the case of widespread declines or highlight conservation successes in the case of widespread increases. It is important to note that the intent of long-term monitoring efforts like RPI is to identify changes overtime, not necessarily to explain them—that is where focused research efforts come into play. RPI shines a light on species and places in need of closer looks and focused efforts.

In these assessments, we provide a summary of the continental and regional migration count trends for each species and highlight species of concern. For complete and/or long-distance migrants such as Osprey, Broad-winged Hawk, Swainson’s Hawk, and Mississippi Kite, where essentially the entire population migrates out of its breeding range to a separate wintering range, the migration count trends provide a reliable assessment of actual population trends. For partial and short-distance migrants such as the Red-tailed Hawk, there is evidence that some species may be shifting their migratory behavior and/or wintering ranges in response to climate change and other factors (Bolgiano, 2013; Paprocki, et al, 2017).

Another factor to consider in viewing the trends is that some species (e.g., Golden Eagle, Peregrine Falcon) have resident populations that may not be well-represented in the migration count data. Therefore, considering results from multiple datasets, including the Christmas Bird Count (CBC, <https://netapp.audubon.org/cbcobservation/>) and Breeding Bird Survey (BBS, <https://www.pwrc.usgs.gov/bbs/results/>), can provide a more complete picture of the population status of many raptor species. In these assessments, we also briefly examine CBC trends, especially where those data inform the findings from the migration count results. The results discussed here derive from www.audubon.org and were published in Soykan, C.U., Sauer, J., Schuetz, J.G., LeBaron, G.S., Dale, K., and Langham, G.M. 2016. *Population trends for North American winter birds based on hierarchical models. Ecosphere, 7(5)*.

Golden Eagle (*Aquila chrysaetos*)

The 10-year migration count trends for Golden Eagle suggest stable populations across North America with 83% of sites showing no statistically significant changes in counts during this span.

This picture holds regionally with mostly stable counts in the East, stable or increasing population in the Central Region, and stable or decreasing population in the West (see pie charts and trend maps below). The 20-year count trends (not shown) similarly show mixed results (East Region: 4 stable, 2 increase, 3 decrease; Central Region: 1 stable, 1 increase; West Region: 4 stable, 1 decrease).

Nonetheless, the 20-year trend is decreasing at Bridgers, Montana, the site with the highest



Photo by David Brandes

counts of Golden Eagle. Winter survey data from the Christmas Bird Count (CBC) also show mostly stable 10-year trends continent-wide as 39 of 43 states and provinces show no statistically significant changes. The Golden Eagle is listed by the IUCN Red List as a species of Conservation Concern throughout its range due to threats such as energy development, loss of habitat, lead poisoning, and electrocution.



