

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).

Peregrine Falcon (*Falco peregrinus*)

The 10-year migration count trends for Peregrine Falcon suggest mostly stable populations across North America with 80% of 60 total sites showing stable counts during this span. However, decreasing counts have been observed at 12% of the sites with only 8% of sites reporting an increase. For the East Region, 17% of 41 count sites show declines, with declining sites clustered in the Mid-Atlantic Coastal Region. The Central and Gulf Regions show 17% and 20% of count sites have observed increasing trends and no declines. The West Region has reported both declines and increases (see pie charts and trend maps below). The highest count of Peregrine Falcon is observed at the Florida Keys site, Florida, with 2,771 birds per year on average, where numbers appear stable. Cape May, New Jersey, records the second highest count on average, with 1,050 per year and a 3.15% decline per year in the past decade.

The 20-year count trends (not shown) imply a stable and increasing trends among the sites (Central Region: 1 stable, 1 increase; East Region: 11 stable, 8 increase; Gulf Region: 2 stable, 2 increase; West Region: 5 increase, 1 stable).

Winter survey data from the Christmas Bird Count (CBC) show increasing 10-year trends continent-wide with the annual percent change in population reported to be an increase of almost 3.5%.

The increase in wintering birds coupled with declines at migration sites, may indicate an increase in resident Peregrine Falcons. There could also be an increase in short-stopping in the United States, although further research is needed to confirm this pattern. The Peregrine Falcon was delisted from the Endangered Species List by the United States Department of Interior in 1999 following rigorous conservation and management strategies. It is listed as a species of least concern globally by the IUCN Red List. Peregrine Falcons are vulnerable to environmental contaminants, collisions, and the loss or modification of nesting sites. Although Peregrine Falcons nest on cliffs, they have become established urban residents over the last two decades and continue to nest at nontraditional sites such as bridges and tall buildings.



