M. Carson, D. Oleyar, D. Ethier, L. Goodrich, D. Brandes, J. Brown, and J. Sodergren. 2025. The Raptor Population Index: 2023 Species Assessments. Available at http://rpi-project.org/2023/assessments2023.php

Introduction to North American Raptor Conservation Species Assessments

In the assessments, we provide a summary of the continental and regional migration count trends through 2023 for each species using data from 80 migration count sites across North America, spanning from Canada to Mexico. 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 or wintering ranges in response to climate change and other factors (Bolgiano, 2013; Paprocki, et al, 2017). Our goal is to provide accurate population trend summaries and highlight species of concern.

Another factor to consider in viewing the trends is that other species (e.g., Golden Eagle, Peregrine Falcon) have resident populations that may not be well-represented in the migration count data. Therefore, it is important to review 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/), for a complete picture of the population status of many raptor species. In these assessments, we also briefly discuss CBC trends where those data augment 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).* The CBC data represented here only show trends where the confidence interval for the trend derived does not include zero.

Peregrine Falcon (*Falco peregrinus*)

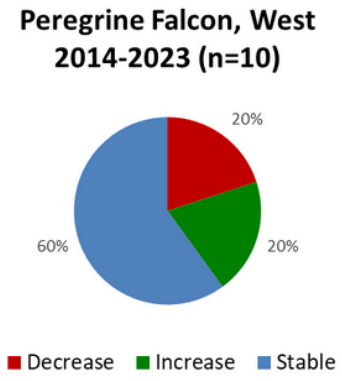
The 10-year migration count trends for the Peregrine Falcon suggest mostly stable populations across North America as 69% of 71 total sites recorded stable counts during this span. However, decreased counts have been observed at 22.5% of the sites, with only 8.5% of sites reporting an increase. For the East Region, 13% of 43 sites show declines, with declining sites clustered in the Mid-Atlantic Coastal Region. The Gulf Region has primarily reported declines, with 67% of 6 sites documenting a decrease in counts. The West and Central Regions have reported both declines and increases (see pie charts and trend maps below). The 20-year count trends (not shown) imply stable and increasing trends among the sites. The two sites with the largest numbers counted (Cape May, NJ and Florida Keys) both show no trend over the past 10 years. Peregrine Falcon was removed from our "Raptors on the Rise" list due to these mixed results that emerged in the most recent trend data.

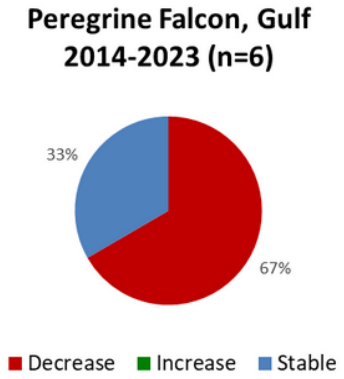
Winter survey data from the Christmas Bird Count (CBC) show increasing 10-year trends continent-wide with the annual percent change in population reported to be an increase of almost 2.86% annually from 2009-2022. Similar trends are observed in 10-year eBird abundance data,

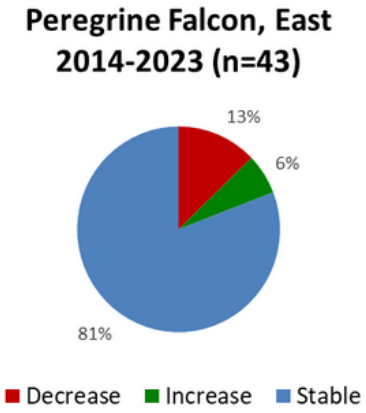
which show an increasing population trend continent-wide with an annual increase in abundance of 3.4% from 2012-2022. The increase for the United States is an estimated 10.4%, with the highest increases seen in the western United States.

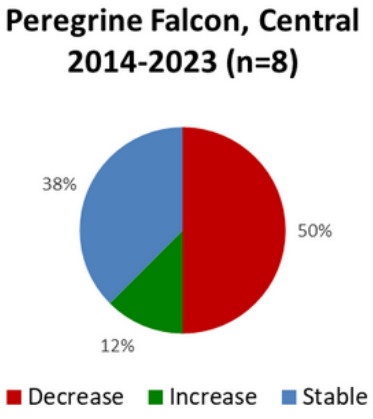
The increase in wintering birds coupled with declines at some migration sites may indicate an increase in resident Peregrine Falcons. There could also be an increase in short-stopping behavior in the United States, although further research is needed to confirm this pattern. The Peregrine Falcon was 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, climate change, 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. Individuals nesting in urban areas have a higher risk of being killed or injured due to collisions with man-made structures, moving vehicles, or powerlines.









M. Carson, D. Oleyar, D. Ethier, L. Goodrich, D. Brandes, J. Brown, and J. Sodergren. 2025. The Raptor Population Index: 2023 Species Assessments. Available at http://rpi-project.org/2023/assessments2023.php