

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)*.

Swainson’s Hawk (*Buteo swainsoni*)

The 10-year migration count trends for the Swainson’s Hawk suggest stable populations across North America with 93% of 14 total sites showing stable counts during this span. Increasing observations were seen at one site. Regionally, populations are mostly stable with one increasing report in the West Region (see pie charts and trend maps below). 20-year count trends (not shown) also reflect a stable population with some increases in the West Region (Gulf Region: 5 stable; West Region: 3 stable, 1 increase). Average annual numbers are highest at sites in Veracruz, Mexico, with 387,209 on average in Chichicaxtle and 244,327 per year at Cardel, Veracruz. In the United States, Corpus Christi, Texas, recorded the highest average count of 6,010 per fall. These sites reported stable counts for the past decade.



Photo by Vic Berardi

Winter survey data from the Christmas Bird Count (CBC) show stable 10-year trends continent-wide with significant declines observed in Washington. The Swainson’s Hawk has no federal status under the United States Endangered Species Act but is listed as a Species of Special Concern in Utah, Nevada, Oregon, and Washington, and as Threatened in California. Evidence suggests that the population has been reduced by as much as 90% from its pre-colonial numbers. Swainson’s Hawks commonly breed in areas of intense agriculture but require access to trees for nesting and roosting. They are especially vulnerable to habitat loss due to urbanization and land development and environmental contaminants such as agrochemical compounds.



