

Introduction to North American Raptor Conservation Species Assessments

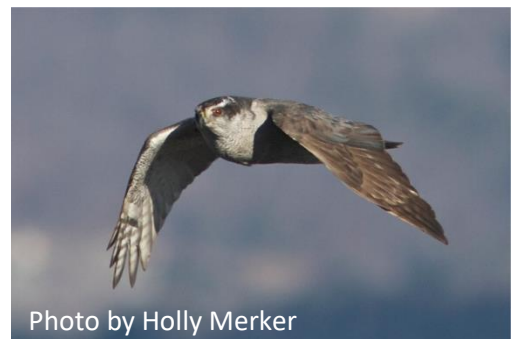
We provide species assessments based on trend analyses through 2019 from 76 raptor migration count sites across North America spanning from Canada to Panama. Synthesis of trends at the continental and regional scales can highlight species and/or regions that warrant a closer look in the case of widespread 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)*.

Northern Goshawk (*Accipiter gentilis*)

The 10-year North American migration count trends for the Northern Goshawk suggests some population declines occurring in part of the range as 46% of 26 total sites recorded a decline in counts during this span. The other 54% of the count sites recorded stable counts. Stability varies regionally, with mostly stable counts for sites in the Central and West Regions. The majority of the declines have been observed in the East, with 69% of Eastern sites reported declines (see pie charts and trend maps below). The 20-year count trends (not shown) also reflect declining trends in the East over this span. The Central and West Regions have observed both declining and stable counts during the last 20 years. (Central Region: 1 stable, 1 decrease; East Region: 9 decrease; West Region: 4 stable, 1 decrease). Hawk Ridge, Minnesota, which counts the highest average count of goshawks at 206,



observed a 7.6% decline in goshawks per year during the past twenty years. The four sites recording the highest counts of goshawks in the past decade all show stable trends suggesting some declines may have stabilized, though a rebound or increase was not noted (range 56 to 206 goshawks on average for highest counts; Hawk Ridge, Minnesota; Tadoussac, Quebec; Goshutes, Nevada; Whitefish Point, Michigan). Goshawk declines appear most evident in the Eastern Great Lakes and Appalachians in the recent decade, where sites such as Waggoner’s Gap, Pennsylvania, observe an average of 36 goshawks per year along with a 15% decline per year.

Winter survey data from the Christmas Bird Count (CBC) show stable 10-year trends continent-wide however most states, provinces and Bird Conservation Regions show significant declines in wintering goshawks except in the Northern Rockies, Yukon, Northern Quebec, or the Boreal Soft Shield. The Northern Goshawk is a species of Least Concern on the global IUCN Red List, but it is listed as a sensitive species by the U.S. Forest Service in the Pacific Southwest, Southwest, Intermountain, Rocky Mountains, and Alaska Regions. Currently, there are no designations for this species in the Northern, Eastern, and Pacific Northwest regions, but some states have designated it as a Sensitive Species warranting more investigation. Research is required to determine the cause of observed declines. Northern Goshawks rely on large mature forests and may be vulnerable to nest disturbance, environmental contaminants, habitat loss, climate change, and disease.

