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.

Golden Eagle (Aquila chrysaetos)

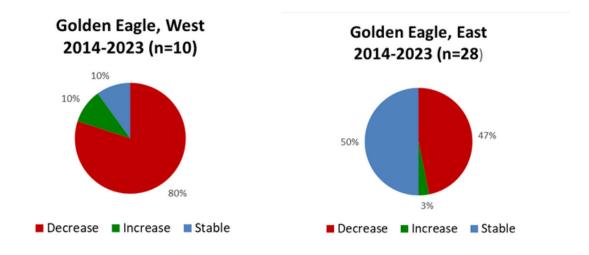
The 10-year migration count trends for Golden Eagle suggest a mix of declining and stable populations across North America as 48.9% of sites recorded declining counts, and 46.8% of sites recorded stable accounts during this span. The remaining 4.25% of the sites documented increasing counts. This picture holds regionally with a mix of declining and stable counts in the East, stable populations in the Central Region, and a majority of sites showing decreases in the West (see pie charts and trend maps below). The 20-year count trends similarly show mixed results continent wide; however, it is important to note that the two western sites that annually count the



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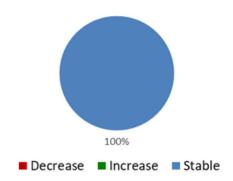
most Golden Eagles (Bridger Mountains, MT and Mt Lorette, AB, both located along the Rocky Mountain Front) have both experienced significant long-term and 10-year declines. Research is needed to understand the reasons for these apparent declines in the migratory western population.

In contrast to migration count results, winter survey data from the Christmas Bird Count (CBC) show mostly stable 10-year trends continent-wide as 39 of 43 states and provinces show no statistically significant changes from 2009-2022. However, the overall abundance trend is declining for the Golden Eagle in eBird data from 2012-2022, with a 18.5% decline in abundance for North America, and the steepest declines in Canada. Research is needed to examine disparity in trends by season, and the reasons for declines in the western region. The Golden Eagle is listed by the IUCN Red List as a Species of Least Concern globally but it has experienced sharp declines and has been extirpated from some areas of its historical range in Europe and Asia. As a result, it is protected under CITES Appendix II which controls trade to protect survival. The United States Fish and Wildlife Service (USFWS) has established a policy for "no net loss" of Golden Eagles in the United States, which includes a proposal to offset mortality of Golden Eagles caused by lead poisoning from lead ammunition. The USFWS also issued the Eagle Conservation Plan Guidance in 2013, later expanded upon in 2016, which advises wind energy developers to make their facilities compatible with both Golden and Bald Eagle conservation. However, in 2024 a more streamlined permitting approach was adopted allowing a general permit for areas deemed to be low risk. Other threats that have been identified include loss of nesting habitat, vehicle collisions, expanded energy development, electrocution, lead poisoning and loss of food sources due to land development. Many states have established protections for this species through their Wildlife Action Plans. The Eastern Golden Eagle Working Group recently published a comprehensive Conservation Plan for the small eastern population of Golden Eagles (for details see https://egewg.org/conservation-plan).



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Golden Eagle, Central 2014-2023 (n=5)



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