

## 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](http://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.

### Zone-tailed Hawk (*Buteo albonotatus*)

The 10-year migration count trends for Zone-tailed Hawks suggest stable migrant populations as the two autumn count sites in the Gulf Region, both in Mexico, reported stable counts during this span (see pie charts and trend maps below). Twenty-year count trends (not shown) also reflect a stable or increasing population (Gulf Region: 1 stable, 1 increase).

Winter survey data from the Christmas Bird Count (CBC) show increasing trends with the annual percent increase in population of 4.92% per year between 2009-2022. Similarly, eBird abundance data has reported an increase in Zone-Tailed Hawk populations over the last 10 years (2012-2022). A median increase of 7.1% was documented range-wide, with the most significant increases detected in Colombia, Costa Rica,



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and the United States. The Zone-tailed Hawk is a *Species of Least Concern*, designated by IUCN Red List. It is listed as *Threatened* in Texas and is considered a sensitive species in the United States due to loss of suitable riparian nesting habitats and its rarity in the country. The United States population should be closely monitored due to its location in the upper periphery of the species range.

**Zone-tailed Hawk, Gulf (fall only)**  
**2014-2023 (n=2)**



