

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)*.

Zone-tailed Hawk (*Buteo albonotatus*)

The 10-year migration count trends for Zone-tailed Hawks suggest stable populations across its range as the two autumn count sites in Cardel and Chichicaxtle, Veracruz, reported statistically significant stable counts during this span and Cardel reported the observation of 3,192 individuals a season on average. (see pie charts and trend maps below). Twenty-year count trends (not shown) also reflect a stable and increased population (Gulf Region: 1 stable, 1 increase). Winter survey data from the Christmas Bird Count (CBC) show increased 10-year trends range-wide with the annual percent change in population reported to be an increase of almost 5%. 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.

