

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)*.

Swallow-tailed Kite (*Elanoides forficatus*)

The 10-year migration count trends for Swallow-tailed Kite suggest a mix of migration counts trends across their range with 3 of 5 total sites showing statistically significant stable counts during this span. While the 3 sites reporting stable counts are located in the Gulf Region, the fourth Gulf site has reported a decrease in average counts. The East Region site has reported an increased average count (see pie charts and trend maps below). The Cardel, Veracruz count site observed to greatest number of this species during fall migration at 3,189 individuals. The 20-year count trends (not shown) imply a mostly stable and increasing population in the Gulf Region (Gulf Region: 2 stable, 1 increase).

The Swallow-tailed Kite overwinters in South America, but USGS Breeding Bird Survey data suggest an overall increase in population



Photo by David McNicholas

at Gulf Region breeding grounds over the last two decades. The greatest threat to the species is loss and degradation of nesting, foraging and roosting habitat due to land development. In Florida, the center of species abundance, it is one of the most highly ranked species for management attention there. There are no formal management listings by state or federal agencies except in South Carolina, where the species is listed as Endangered.



