

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).*

American Kestrel (*Falco sparverius*)

Seventy-four percent of American Kestrel migration counts across North America suggest stable populations between 2009 and 2019, with 22% declining, and 4% (three of 76 sites) increasing. The majority of sites that reported kestrel declines are Eastern sites, but migrant kestrels also declined at three sites in the West and two in the Central Region. Increased counts were only recorded at sites in the East (see pie charts and trend maps below). This stabilizing trend appears to be a recent occurrence, given widespread concern about this species based on past declines observed in migration count trends and Breeding Bird Survey results.

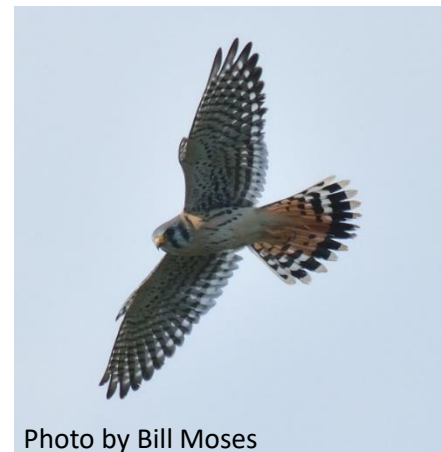


Photo by Bill Moses

Migration count results from 1999-2019 and 1989-2009 indicate much broader declines, with 59% of 37 sites and 17 sites declining, respectively (Central Region: 2 decrease; East Region: 9 stable, 16 decrease; Gulf Region: 4 stable, 1 decrease; West Region: 4 decrease, 2 stable). Winter survey data from the Christmas Bird Count (CBC) also show stable 10-year trends continent-wide with the annual percent change in population reported to be only 0.1%. While these recent results may suggest a bit of good news for current American Kestrel populations, there are many ongoing research efforts to understand the cause for widespread long-term declines in this species. The American Kestrel is listed as a species of Least Concern globally by the IUCN Red List but is listed as threatened in the state of Florida. Pesticides and other environmental contaminants, along with habitat loss and other predators are some proposed major threats to the species.

