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).*

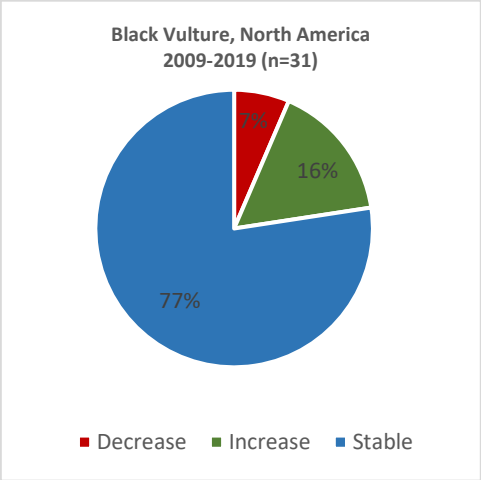
Black Vulture (*Coragyps atratus*)

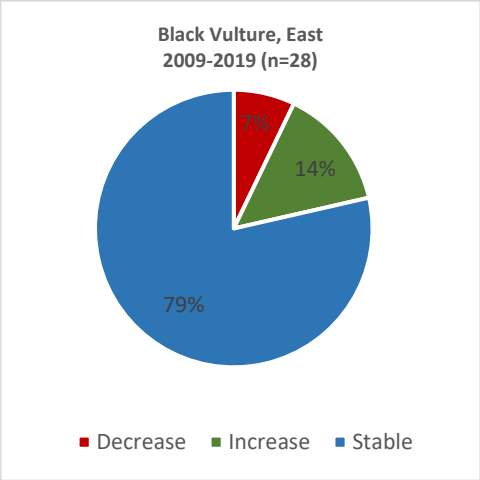
The 10-year migration count trends for Black Vultures suggest mostly stable populations across North America with 77% of 31 total sites showing stable counts (no statistically supported increase or decrease) during this span. Populations are mostly stable regionally with both increasing and stable counts observed in the Gulf Region and mostly stable counts in the East Region (see pie charts and trend maps below). Twenty-year count trends (not shown) also reflect a mostly stable population (East Region: 7 stable, 4 increase, 2 decrease; Gulf Region: 1 increase, 2 stable). Fort Smallwood, Maryland, counts one of the highest numbers of black vultures in the spring with an average of 492, and showed

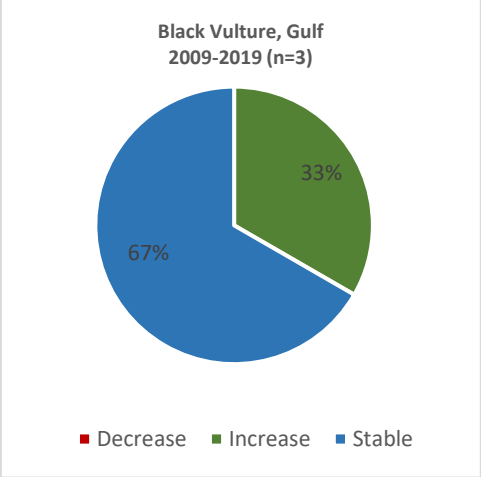

Photo by Bill Moses

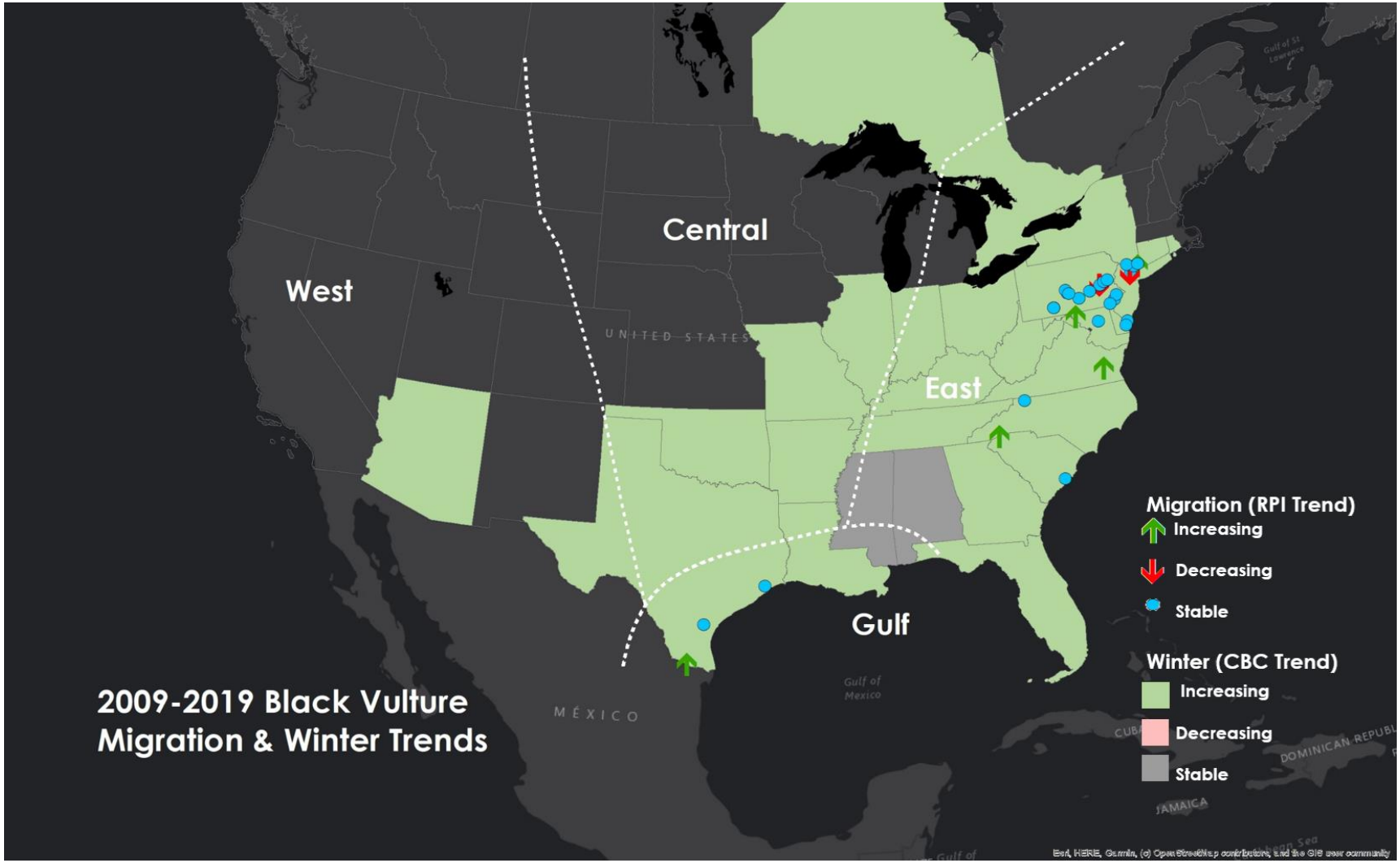
stable counts for the recent decade. Increases have been observed in Northeastern states as this species expands its range northward.

Winter survey data from the Christmas Bird Count (CBC) show increasing 10-year trends continent-wide with the annual percent change in population reported to be an increase of more than 6%. Increasing non-migrant populations are contributing to increases in wintering numbers. The Black Vulture is a species of least concern throughout its range, and as obligate scavengers, they perform valuable ecosystem services for humans through carcass disposal and disease prevention. Black Vultures are vulnerable to habitat destruction, human disturbance, harassment, and indirect poisoning from lead and other toxins, which have been shown to impact vulture species all over the world.








Central
West
East
Gulf
UNITED STATES
MÉXICO
Gulf of Mexico
2009-2019 Black Vulture
Migration & Winter Trends
Migration (RPI Trend)
Increasing
Decreasing
Stable
Winter (CBC Trend)
Increasing
Decreasing
Stable
JAMAICA
DOMINICAN REPUBL