PARTNERS IN FLIGHT SCIENCE Avian Conservation Assessment Database: 2023-24 Updates Summary



ACAD

The Avian Conservation Assessment Database (ACAD) provides standardized vulnerability scores and associated data for 1613 species occurring from Canada to Panama. The ACAD is built and maintained by the Partners in Flight Science Committee in cooperation with many regional ornithological experts, who provide their local knowledge and experience to assist in score development and review. ACAD scores are periodically updated based on the most recent available data on each species, published trends based on monitoring datasets, and expert opinion from ornithologists when data are not available.

The ACAD provides avian conservation scores at two scales. Global Scores are assessed at the full range of a species and Regional Scores are scaled down to <u>Bird Conservation Regions (BCRs)</u> in Canada, the U.S., and northern Mexico; BCRs grouped together in central and southern Mexico; and by country in Central America.

2024 Score Updates

Global and continental scores were updated in December 2023. Regional scores will be updated in spring 2024. The PIF ACAD Handbook, which will include all technical aspects of these updated scores, will also be updated by late spring 2024. In the meantime, this document serves as a quick reference to the main updates now included in the ACAD.

1. Climate Vulnerability Score

The new Climate Vulnerability Score is based on a National Audubon Society analysis of estimated losses and gains in breeding and non-breeding range predicted under a 2°F warming scenario. The Partners in Flight Science Committee adapted these range changes into a 1-5 scale, and these have been incorporated into PIF's threat scores in the ACAD. The analysis assessed climate vulnerability of 605 species, mostly in the U.S. and Canada and parts of Mexico. ACAD Climate Vulnerability Scores considered both modeled changes in range size and model certainty; these scores are available in the downloadable version of the ACAD.

2. Incorporating Urgency into Trend Score

Because we now have longer time-series of monitoring data for assessing population trends (>50 years for most species), ACAD now incorporates both long-term and short-term trajectories into the overall Population Trend (PT) score. Specifically, PT scores are adjusted when the short-term trajectory differs from the long-term trend. For example, it gives greater urgency (higher score) to species whose recent short-term trends are declining more steeply, or a lower score to species with long-term declines that have recently leveled off or increased. The new scoring rubric is shown below (Fig. 1).

In addition, data inputs for ACAD trend estimates now incorporate a combination of U.S. Geological Survey and Canadian Wildlife Service analyses of BBS survey data through 2021, to make use of both analytical approaches; in most cases, trend estimates represent an average between the two analyses. As in the past, trends for each species were assessed separately based on the most appropriate survey data source.



Figure 1. You can see how PIF trends were scored considering both the longand short-term (3-generation or 10-year trend, whichever period was longer by species; per IUCN criteria).

3. Half-life Estimates

Half-life is the predicted number of years it would take for a species to lose half of its current estimated population, assuming no change to the most recent (short-term) trend. First introduced in PIF's 2016 Landbird Conservation Plan, half-life estimates have been updated using the most up-to-date trend data for each species. In the updated ACAD, species have a halflife displayed only if it is 30 years or less and is based on a short-term statistically significant trend and the species is on the PIF Watch List or Common Bird in Steep Decline list; in other words, this estimate focuses attention on species with the steepest recent declines. Half-life estimates are included in the downloadable version of the ACAD.

4. Partners in Flight Watchlist now Synced with Road to Recovery Tipping Point Species List

To address the sense of urgency in response to the loss of 2.9 billion birds from the North American avifauna, the PIF Watchlist incorporates criteria used by Road to Recovery (R2R) to define Tipping Point Species. The PIF Red Watchlist species list now fully matches the R2R Red Alert Tipping Point Species list. The Orange Watchlist is a new category that matches the R2R Orange Alert Tipping Point Species list, highlighting primarily species with long-term declines that have accelerated in recent years. A subset of the PIF Yellow Watchlist species is now defined as R2R Yellow Alert Tipping Point Species. The updated PIF Watchlist species can easily be viewed in the ACAD here. R2R Tipping Point Species lists can be viewed here.