

## **README for *cbc\_indices\_version\_2023.0\_la\_web\_download.csv* and for *cbc\_trends\_version\_2023.0\_la\_web\_download.csv***

All use of CBC relative abundance trends should adhere to our [Terms of Use for Christmas Bird Count® Data Assets, including Data & Derived Products](#).

### **Data Fields Dictionary for Relative Abundance Indices**

<b>Field Name</b>	<b>Description</b>
scientific_name	Scientific name using eBird taxonomy. Genus and species. In some cases multiple species are pooled during analysis and multiple species names are given.
region	Name of survey region, which includes the entire survey region and individual country.
region_type	The region category.
count_number	The official number of the CBC, where the first count started in December of 1900.
year_start	The year corresponding with December counts.
year_end	The year corresponding with January counts.
annual_index	The relative abundance index for a given species, region, and year. This index roughly represents the expected count given a global mean count effort quantified as party hours. This effort-corrected relative abundance index cannot be converted to true abundance or density.
index_lcl	A lower 95% credible limit for the annual index estimate.
index_ucl	An upper 95% credible limit for the annual index estimate.
survey_suitability	A subjective ranking of the CBC as a sampling protocol for a given species. Rankings of high, medium, and low come from expert opinion. For species that are

	large, easily seen, attracted to humans, and are active and vocal all day, survey suitability is high. For species that are small, avoid humans, are cryptic, and are active only at night, survey suitability is low.
range_proportion	The proportion of a species' winter geographic range that falls within the borders of all regions included in this analysis.

## Data Fields Dictionary for Relative Abundance Trends

<b>Field Name</b>	<b>Description</b>
scientific_name	Scientific name using eBird taxonomy. Genus and species. In some cases multiple species are pooled during analysis and multiple species names are given.
region	Name of survey region, which includes the entire survey region and individual country.
region_type	The region category.
trend_type	The category describing the duration of the trend, defined by start and end years.
year_start	The year corresponding with December counts during the first count in the series.
year_end	The year corresponding with January counts during the last count in the series.
annual_percent_change	The change in a smoothed version of relative abundance indices over the trend period, expressed as percent change <i>per year</i> between the first and last year of the trend period.
annual_change_lcl	A lower 95% credible limit for the annual percent change estimate.
annual_change_ucl	An upper 95% credible limit for the annual percent change estimate.
total_percent_change	The change in a smoothed version of relative abundance indices over the trend period, expressed as percent change <i>across years</i> between the first and last year of the trend period.
total_change_lcl	A lower 95% credible limit for the total percent change estimate.

total_change_ucl	An upper 95% credible limit for the total percent change estimate.
prob_change_gt0p	The probability that there was a decrease in relative abundance over the trend period.
prob_change_gt30p	The probability that there was a $\geq 30\%$ decrease in relative abundance over the trend period.
prob_change_gt50p	The probability that there was a $\geq 50\%$ decrease in relative abundance over the trend period.
prob_change_gt70p	The probability that there was a $\geq 70\%$ decrease in relative abundance over the trend period.
survey_suitability	A subjective ranking of the CBC as a sampling protocol for a given species. Rankings of high, medium, and low come from expert opinion. For species that are large, easily seen, attracted to humans, and are active and vocal all day, survey suitability is high. For species that are small, avoid humans, are cryptic, and are active only at night, survey suitability is low.
range_proportion	The proportion of a species' winter geographic range that falls within the borders of all regions included in this analysis.

### Preferred Citation for CBC Analysis Methods

Smith, A.C., D. Binley, A., Daly, L., Edwards, B.P., Ethier, D., Frei, B., Iles, D., Meehan, T.D., Michel, N.L. and Smith, P.A., 2024. Spatially explicit Bayesian hierarchical models improve estimates of avian population status and trends. *Ornithological Applications*, 126(1), p.duad056.

### Preferred Citation for Most Recent Results

Meehan, T.D., Farr, C., Stein, S., Bateman, B., Michel, N.L., Haywood, B.K., Wilsey, C.B. 2025. Trends in relative abundance for birds in Latin America and the Caribbean during the austral summer: Audubon Christmas Bird Counts, 1966-2023, version 2023.0. National Audubon Society, New York, New York, USA.