

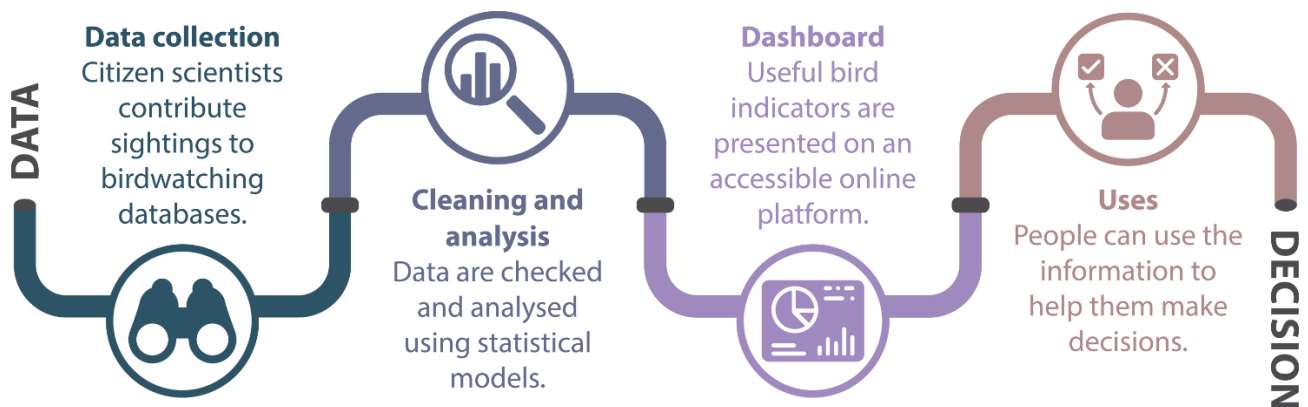


# BIRDIE

## and CWAC

### About BIRDIE

The **BIRDIE platform** gathers and interprets data about wetlands and waterbirds to provide information that is useful for decision making. It sources data from citizen science databases, which are checked and analysed using statistical models. An online dashboard allows users to access up-to-date indicators about bird distribution, abundance and richness at wetland sites. The information can be used for reporting, management, research and as a resource for birders.



<https://birdie.sanbi.org.za/>





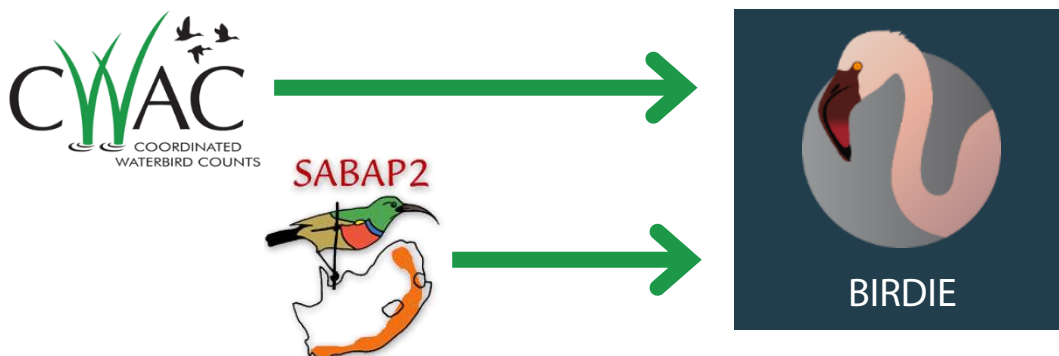
## About CWAC

The BIRDIE project is powered by two citizen science datasets that collect information about birds – the South African Bird Atlas Project (SABAP), and the [Coordinated Waterbird Counts \(CWAC\)](#). CWAC consists of counts of all wetland-related bird species at sites (wetlands, dams and estuaries) across South Africa. Observers count all the birds they encounter at the site. Waterbird species have diverse habitat needs and life histories. Some use the same wetlands year-round, whereas others are nomadic or migratory. To capture this diversity, CWAC counts are carried out twice a year, once in mid-summer and once in mid-winter. The project was initiated in 1992 and counts have since been conducted at over 700 wetland sites. CWAC has accumulated a long time-series for many wetlands. The counts are done by dedicated professionals and volunteers who care about waterbird conservation. It is one of the most successful citizen science programmes in Africa, providing much needed data for waterbird conservation.



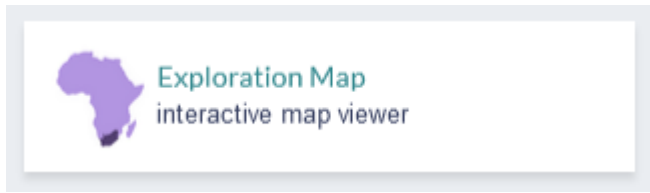
Every CWAC count provides vital information about waterbird numbers. But it is difficult to count waterbirds precisely. While observers try to count all individual birds present, some can be missed or double counted. BIRDIE applies statistical analyses to adjust for this, to reveal long-term trends and seasonal fluctuations in waterbird species. Continued collection of CWAC data is essential for BIRDIE to keep providing up-to-date information on waterbirds. In this way, wetland managers can be alerted to worrying trends, so they can react in time to avert loss of these special species and ensure their habitat is maintained in good condition for them to flourish.

*Citizen science provides crucial data for BIRDIE:*



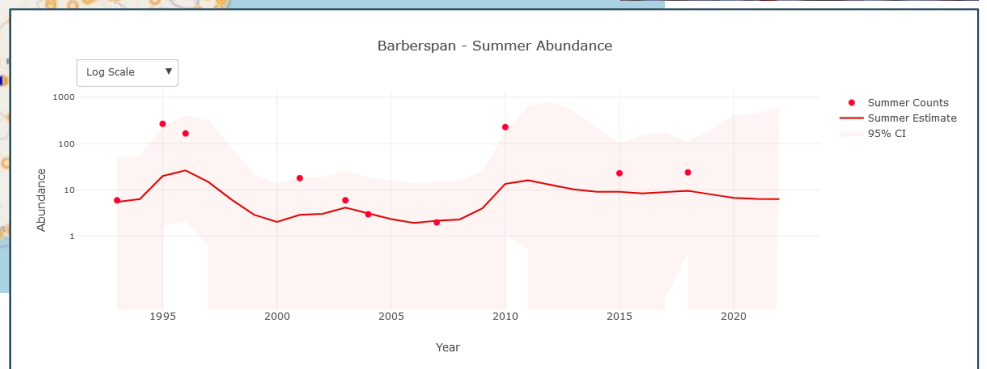
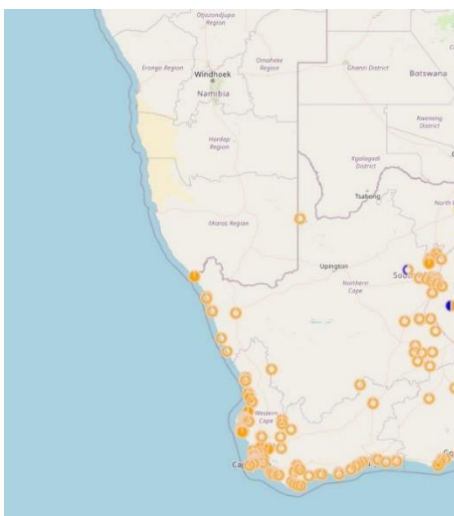
# BIRDIE makes CWAC information accessible to everyone

**Abundance** is one of the most important bird indicators on BIRDIE. It draws its information directly from CWAC. Abundance is the number of individuals of a species present at each site. BIRDIE uses a statistical method called a state-space model to estimate bird abundance.



The [Exploration Map](#) includes ways to explore, interact with and filter bird indicators and ancillary data layers on a map. All maps and graphs can be saved as image files.

For each species, abundance is shown across all CWAC sites on the map. Circular markers represent the population size of the selected species at each site. This helps to show visually where the biggest populations are. Selecting a specific site brings up a graph of abundance trends over time. The model corrects the variability in the counts to give a better idea of how the population is changing over time.



On the [Sites](#) and [Species](#) pages it's possible to select a specific site or species from a drop-down list of more than 700 wetland sites and more than 140 waterbird species.

Information on the Sites and Species pages are shown in interactive tables that are downloadable as .csv files.

**Vital statistics:** A summary for the site, including the number of citizen science visits, the total number of species, a list of threatened species and the Waterbird Conservation Value for the latest year.

**Bird information:** Here, it's possible to view a list of all the species that have been observed at a site, with information about their habits and habitats. You can filter the table to show threatened species. The tables show the change in abundance over a five- and ten-year period – whether they are increasing or decreasing in numbers. For instance, you would be able to find out how the numbers of White-faced Whistling Duck at Lake Sibaya have changed in the last ten years.

Finally, abundance is shown as a total population size aggregated to provinces on the [Species](#) page. A table and bar chart shows the total population size at CWAC sites per province. This helps to show which provinces the species is most abundant in.



## CWAC is essential to keep BIRDIE going

The information from BIRDIE is not just for interest. It's used by wetland site managers to make decisions. And also by officials when reporting to international conventions related to wetlands and waterbirds. To keep BIRDIE going and improve it in the future requires that CWAC continues to collect its very valuable information. Citizen scientists can help by:

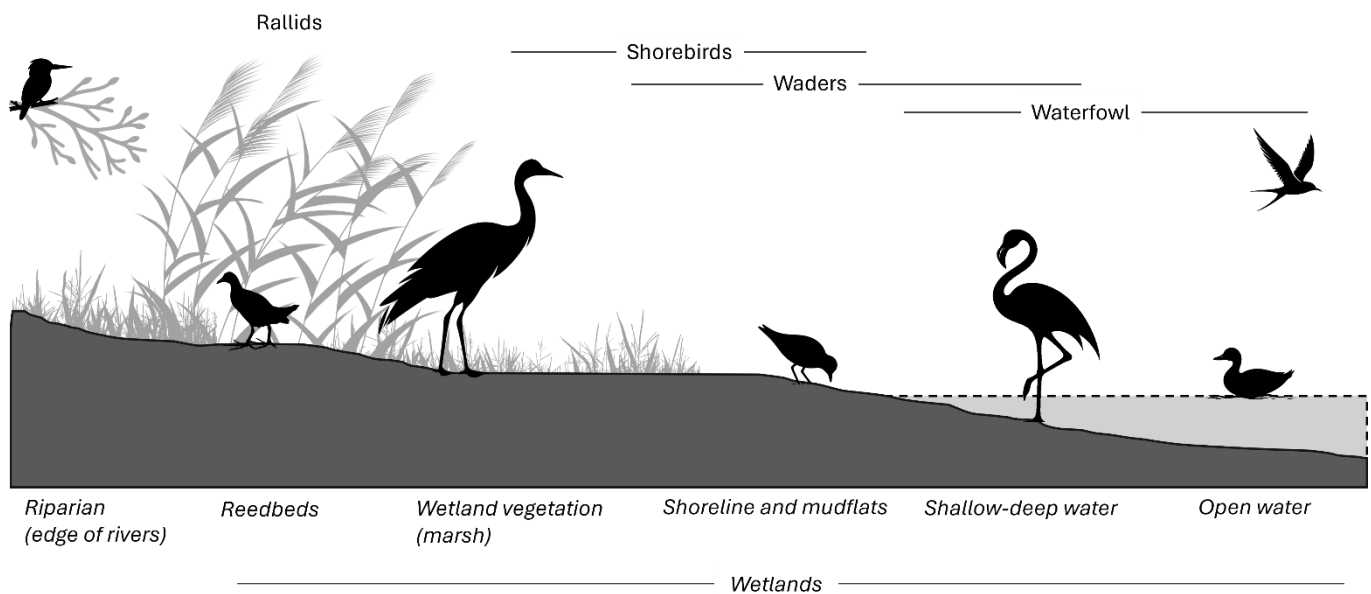
**Joining CWAC volunteers:** The professionals and volunteers who conduct the counts are the core of CWAC. You can help by joining monitoring at existing sites, or starting to count waterbirds at new wetland sites. CWAC data that is collected regularly is valuable because it shows how populations are changing.

**Following CWAC guidelines:** CWAC data is most useful if it is collected using standard monitoring methods across all sites. It's important to follow the sampling protocols. CWAC has a range of information sheets available on their website about how to go about counting:

- CWAC Information Sheet 1: What is a CWAC site?
- CWAC Information Sheet 3: Basic aims and protocol
- CWAC Information Sheet 9: Guidelines for completing the census form

**Collecting wetland data:** As well as the bird counts, the additional information collected about bird habitats and the state of the wetlands is also very important. The CWAC census form has sections to record the condition of the wetland during each count.

**Using standard terminology:** Using the most up-to-date terminology to describe wetland types can ensure that the data align with requirements from the Ramsar Convention, global ecosystem classifications and the South African Classification System for Wetlands. This will mean that the data collected can contribute to bigger processes.



Web Services  
OpenAPI

### Access underlying data from BIRDIE

You can use BIRDIE's [OpenAPI](#) to download the underlying data, perform your own analyses and build your own summaries.

For more information view the [FAQ](https://birdie.sanbi.org.za/) on the BIRDIE website: <https://birdie.sanbi.org.za/>

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