

# BIRDIE: South Africa's Biodiversity Data Pipeline for Wetlands and Waterbirds

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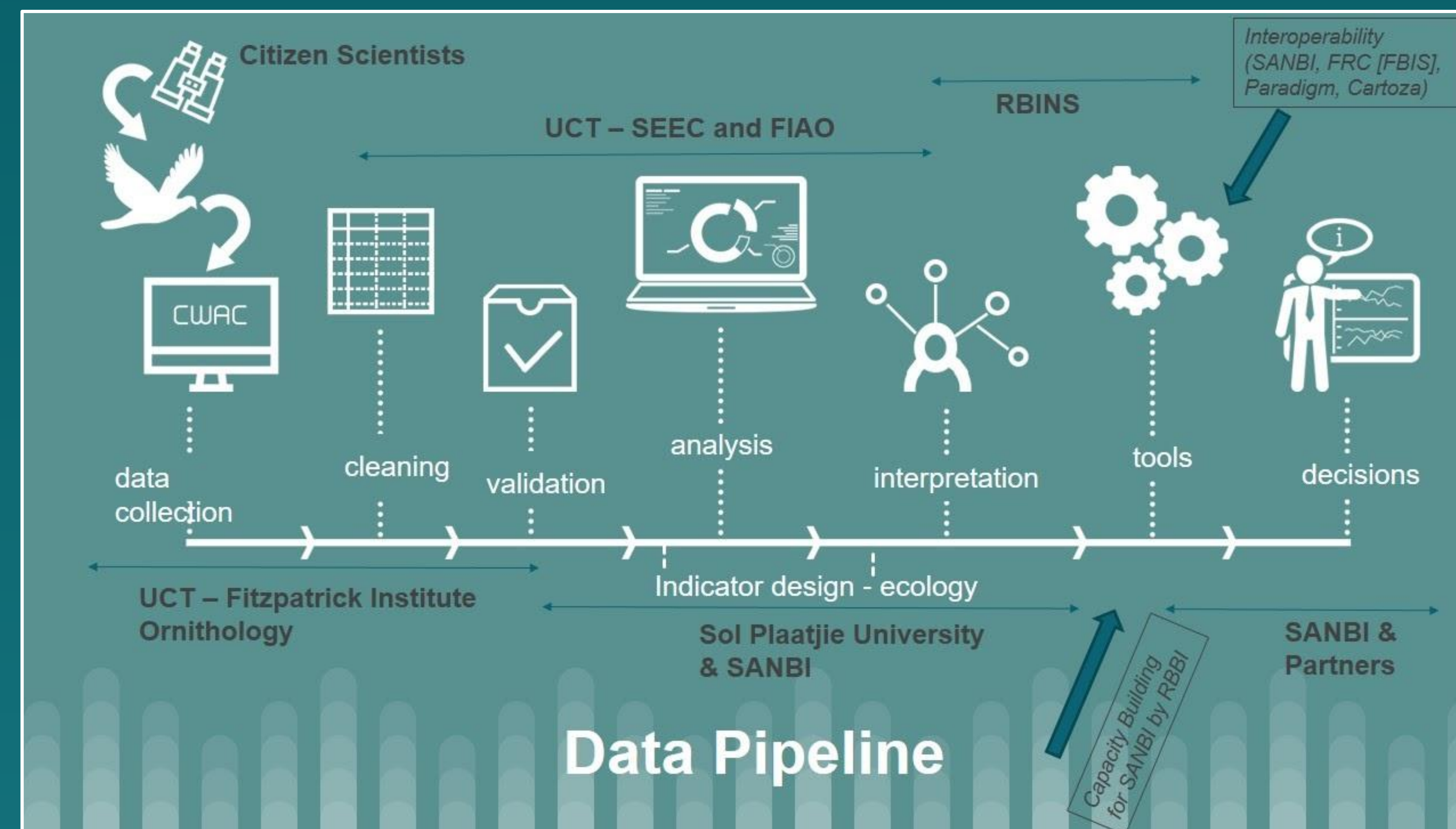
## Wetlands and waterbirds

- Wetlands are extremely bio-diverse and deliver fundamental ecosystem services. Yet, they are being lost at alarming rates\*
- Citizen-science is considered a valuable tool for large-scale environmental monitoring
- Birds are considered good indicators due to their high accessibility compared to other taxonomic groups
- BIRDIE leverages two long-term, citizen-science bird monitoring data sets to produce waterbird conservation indicators
- These data are combined with ancillary environmental layers to contextualize changes in bird populations



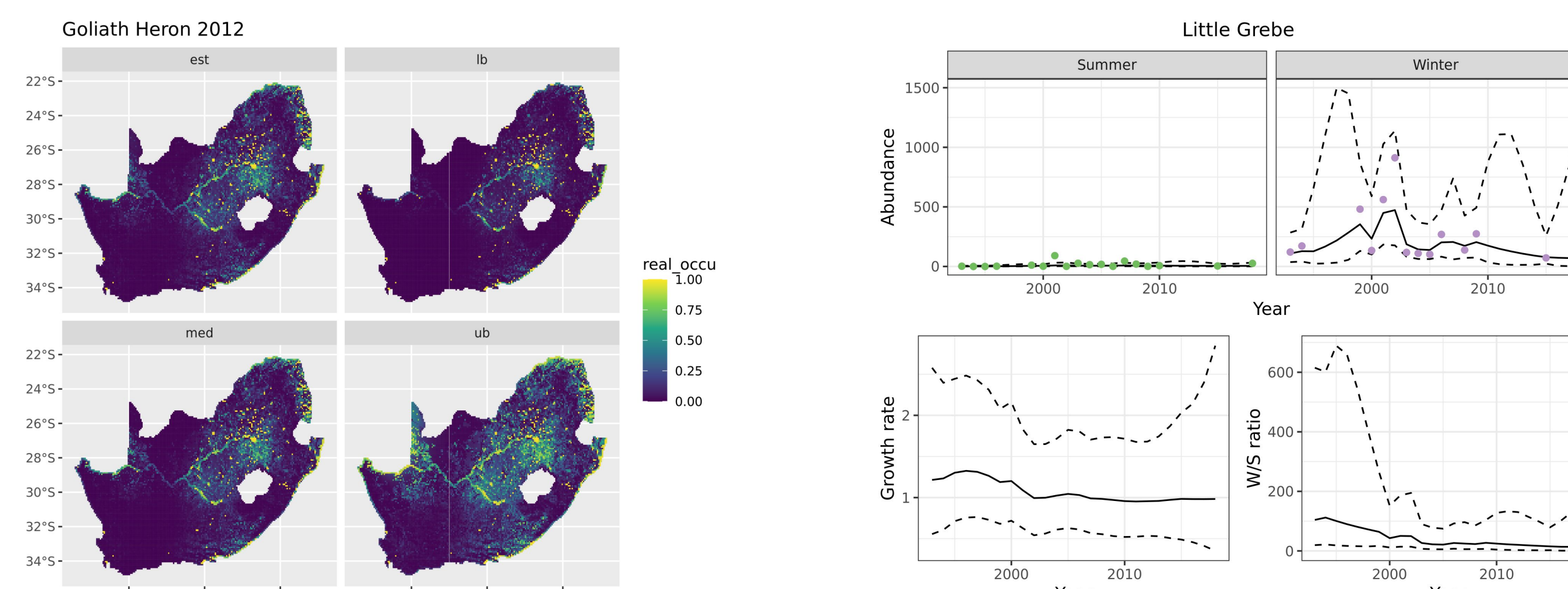
Google Earth Engine

\*Convention on Wetlands. (2021). Global Wetland Outlook: Special Edition 2021. Gland, Switzerland: Secretariat of the Convention on Wetlands.



## Streamlined species distribution and abundance estimation

- Occupancy models are fitted to data from SABAP2 to produce distribution-related indicators (e.g., area of occupancy)
- State-space models estimate bird abundance at different spatial and temporal scales from CWAC data, accounting for observer errors



## Who is BIRDIE intended for?

- International** agreements: Ramsar, AEWA, etc
- National** programmes: biodiversity assessments, red listing, etc
- Site-specific** programmes
- Researchers**
- General public**: birders, naturalists, etc
- BIRDIE's indicators will be freely available to everyone on an online dashboard and through a datamart
- Currently focused on South Africa, but aiming to cover other African regions



[www.birdmap.africa](http://www.birdmap.africa)

## Our funders and collaborators:

