

## Southern Giraffe Survey Report

Tswalu Kalahari Reserve, Korannaberg & Lekgaba, South Africa

22-25 August 2025

### Background

In August 2025, the Giraffe Conservation Foundation (GCF) in collaboration with the team from Tswalu Kalahari Reserve (TKR), conducted the first individual-based photographic survey of southern giraffe (*Giraffa giraffa*) in TKR.

### Objectives

To undertake a preliminary survey of the population dynamics and population structure of southern giraffe as well collect DNA samples for planning long-term conservation research at TKR.

### Methods

From 22–25 August 2025, the road networks of the Korannaberg and Lekgaba sections of TKR were surveyed on four consecutive days. Each section was surveyed twice systematically to ensure complete coverage, with repeat surveys completed for both areas.

During surveys, all southern giraffe encountered were photographed on their right lateral side to enable individual identification. For each sighting, the herd size, age class (adult, subadult, juvenile), sex, and GPS coordinates were recorded. In addition to photographic data collection, biopsy samples were opportunistically obtained to contribute to GCF's ongoing work to assess subspecies composition and genetic connectivity of southern giraffe.

### Results

A total of 92 southern giraffe encounters were observed, comprising 21 different herds with an average herd size of 4.6 individuals. The surveyed population had a male-skewed sex ratio of 2.1:1 (M: F), whilst the age structure included 82% adults, 17% subadults, and 1% juveniles. In addition, biopsy samples were collected from two male giraffe.

### Next Steps

#### Short-term priorities

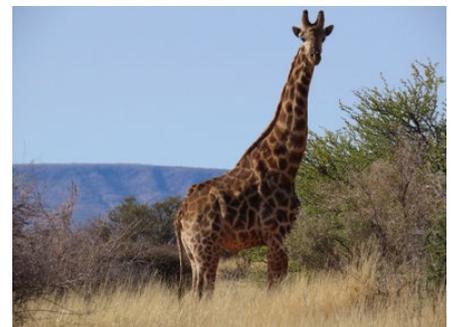
- Establish long-term individual-based photographic surveys to build a robust TKR-wide southern giraffe database. Standardising survey protocols will

allow meaningful comparisons between years and reserve sections.

- Integrate southern giraffe as a priority species in TKR's biodiversity monitoring programme, ensuring that demographic and spatial data inform management alongside other large herbivores and carnivores.
- Deploy GPS tracking units in Korannaberg and Lekgaba to provide insights into space use, habitat preference, and seasonal movements, as well as comparison with(out) lion presence, property size and road density.

#### Longer-term research goals

- Integrate lion density and movement data with southern giraffe tracking results to assess how predator pressure influences habitat use, movement, and herd behaviour.
- Use tracking data to compare southern giraffe utilisation of different reserve sections, with specific attention to how reserve size, habitat availability, and fence boundaries shape space use and edge-related behaviours.
- Comparative population studies of the TKR southern giraffe population with others across Africa. Such comparisons will highlight how factors like reserve size, predator density, and habitat influence their ecology and management.



### Acknowledgements

We thank the Openheimer Generations Research and Conservation and Tswalu Kalahari Reserve team for their collaboration and field support. Lastly, we thank GCF donors, supporters and team for their financial and logistical assistance.

