FIELD REPORT TO THE SOUTHERN AFRICAN CONSERVATION TRUST (SACT)

Project: *A Game of Thrones – Rivals, Territories and Resources*
Reporting period: November 2025
Lead Researcher: Prof Jan A. Venter, Wildlife Ecology Lab – Nelson Mandela University
Partners: Marakele National Park (SANParks), Marataba

Introduction

Thank you to SACT for your continued support to the *A Game of Thrones* lion behavioural ecology project. The three satellite collars sponsored by SACT have been essential for maintaining continuity in our long-term monitoring of pride dynamics in Marakele National Park. This collaring work directly supports the core objectives of the project, understanding how lions respond behaviourally and spatially in small, fenced systems, an information gap identified in our project proposal and aligned with SACT's mission to support research that strengthens lion conservation across southern Africa.

This report summarises collar deployment activities undertaken over the past two days and outlines the status of the remaining deployment.

Purpose of Collar Replacements

Two resident prides in Marakele NP—the **Kingfisher Pride** and the **Eastern Pride**—held collars originally purchased under my NRF grant. Both collars showed rapidly declining battery life, risking data loss and compromised monitoring. Maintaining uninterrupted tracking is essential for:

- Mapping core and peripheral territories
- Detecting boundary shifts and contest events
- Understanding the dynamics of breakaway groups
- Supporting SANParks/Marataba in proactive management responses should lions approach boundary areas

This is fully aligned with the SACT collar-sponsorship model, which emphasises replacing aging collars to preserve behavioural and conflict-prevention datasets

Summary of Field Operations (17–18 November 2025)

Kingfisher Pride – Collar Replacement Completed

- **Animal:** Adult female (ID: MM_Kingfisher Female)
- **Old collar:** NRF-funded AWT model (battery near end-of-life)
- **New collar fitted: SAT10762**
- **Status:** Successful.
- **Notes:** The lioness was in good condition, immobilisation and fitment were routine, and the collar is transmitting hourly GPS fixes as programmed.

Figure 1: The collar being fitted by Prof Jan Venter to the Kingfisher pride female. Her old collar was successfully replaced on the 17th of November 2025.

Eastern Pride Breakaway Group – New Collar Deployment

- **Animal:** Adult lioness from the *Eastern breakaway pride*
- **Collar fitted: SAT10761**
- This female represents an important component of an emerging sub-unit within the Eastern Pride, information central to our work on pride fission, resource competition, and territorial pressure in fenced systems
- **Status:** Successful. Collar performing well.
- Notes: The lioness was in good condition, immobilisation and fitment were routine, and the collar is transmitting hourly GPS fixes as programmed. The female was lactating, so she has cubs at the moment. This was confirmed by the staff.

Eastern Pride (Main Pride) – Collar Replacement Pending

- **Target animal:** Adult female (collared under NRF funding)
- This lioness is currently occupying steep and inaccessible mountain terrain in the northern portion of Marakele NP.
- **Assigned collar: SAT10760**
- **Plan:** The Marataba Conservation Team will replace the collar at the next safe access opportunity when she descends from the escarpment.
- **Expected timeframe:** As terrain use opens, typically within the next 1–8 weeks.

Figure 2: The Eastern breakaway pride female soon after collar fitment. She is a healthy lactating female indicating she has cubs. Note she was also branded on the right shoulder for future identification and monitoring purposes.

Operational Notes

- All captures were carried out with veterinary support under SANParks/Marataba protocols.
- No adverse events occurred.
- Data uplink from both new collars is stable, confirming strong satellite performance.
- These deployments ensure continuous data flow needed for the spatial analyses, playback trials, and behavioural comparisons central to the *Game of Thrones* project methodology.

Importance of These Collars to the Research Programme

The three SACT-sponsored collars are strategically placed to:

- **Maintain continuous monitoring in two key prides** where territory boundaries, overlap patterns, and group cohesion are under active study.
- **Track a newly emerging breakaway group**, which provides rare and valuable data on pride fission in fenced parks, one of the least understood behavioural processes affecting population stability.
- **Serve as reference animals** for upcoming playback experiments and stress analyses (Objectives 2–4 of the project)
- **Support Marakele NP's management needs, particularly early-warning of any pride or coalition movement toward boundary areas.**

These deployments directly strengthen SACT's mission of using technology to reduce potential human–lion conflict and to inform better management decisions in constrained landscapes.

Next Steps

- Complete final collar replacement (SAT10760) once terrain access allows.
- Begin the next phase of spatial modelling using the new high-resolution GPS data streams.
- Provide the first quarterly movement summary to SACT once all three collars are active.
- Continue to integrate data with the broader *A Game of Thrones* multi-site comparative study.

Acknowledgements

On behalf of Nelson Mandela University and the Wildlife Ecology Lab, I extend my sincere thanks to the Southern African Conservation Trust for sponsoring these collars and for your dedication to lion conservation. Your investment directly enables cutting-edge behavioural science and practical management action that would otherwise not be possible.