

### **Final Evaluation Report**

Your Details	
Full Name	Adriaan Jacobus Olivier
Project Title	The ecology of southern giraffe in Zimbabwe – an unknown entity
Application ID	36523-2
Date of this Report	April 2023



## 1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Determining the past and present status of giraffe in Zimbabwe				This objective has been achieved and we have estimated that giraffe numbers have dropped from 25,000 in 1998 to +- 10,000 individuals in 2021. This is a 60% decline over the past 30 years and a real call for concern.
Determining the genetic structure of all major giraffe populations in Zimbabwe				This objective has been achieved with all samples (171) from all major giraffe populations in Zimbabwe, having been analysed at the Bik-F Senckenberg lab in Germany.
Determining the population dynamics of giraffe in Hwange National Park.				This objective has been fully achieved and results indicate that giraffe populations are still decreasing in the park which is a cause for concern.
Determining the activity budgets of giraffe in Hwange National Park.				This objective has been fully achieved and results have been written up for the PhD thesis.
Determining the diet and browse availability of giraffe in Hwange National Park.				This objective has been fully achieved and results have been written up for the PhD thesis.
Determining the spatial ecology of giraffe in Hwange National Park.				This objective has been fully achieved and results have been written up for the PhD thesis.

#### 2. Describe the three most important outcomes of your project.

- **a).** The project will contribute towards the implementation of the first ever Giraffe National Strategy Plan in Zimbabwe. We will do this by working with government (ZimParks). These results will then also be used to implement a giraffe strategy plan for the Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA). This area spans across five countries (Angola, Botswana, Namibia, Zambia and Zimbabwe), is the largest transfrontier park in Africa and is home to about 10% of all wild giraffe.
- **b).** The results from our genetic study will be used to update the IUCN Red Listing of the southern giraffe species through the work of the IUCN Giraffe and Okapi Specialist Group.



**c).** This project will result in the completion of my PhD degree and improve me as a wildlife biologist, allowing me to contribute to the future conservation of giraffe and other species.

Currently, there is very limited literature available on giraffe, with major knowledge gaps regarding their population numbers, habitat requirements, genetic structure and conservation status. This project will gain a better understanding of Zimbabwe's threatened giraffe populations which in turn, will help us make better informed conservation management decisions in Zimbabwe, and other African countries.

## 3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

The ongoing Covid-19 pandemic continued to cause unforeseen difficulties, and we also had a delay in our permits being issued. We ensured we stayed on top of work by focusing our attention on remote analysis and getting everything in place for when permits was approved, and field work was continued.

## 4. Describe the involvement of local communities and how they have benefitted from the project.

The communities in and around our study area contribute as two workers were employed to help us out at the research camp where we are based. The funds from our monthly rent contributed towards their salaries and provided them with work. We often also talked to the locals about giraffe and their conservation, hopefully so that they can carry over the message to friends and family to better educate communities on the importance of giraffe conservation.

It is always important to ensure that both wildlife and communities can co-exist in the same area. By working with government officials, such as ZimParks, it will hopefully lead to better education on giraffe in the surrounding communities and the implementation of policies where both parties (wildlife and humans) can benefit from it (e.g., job creation in the eco-tourism sector, which provides funding towards conservation).

#### 5. Are there any plans to continue this work?

As the project has concluded there are no further work planned, however, it is suggested that future work focus on giraffe across the whole KAZA TFCA.

#### 6. How do you plan to share the results of your work with others?

We plan to share our work through seminars, conferences, social media and scientific publications. The work we do in Zimbabwe often feature on the Giraffe Conservation Foundation social media pages and in one of their most recent documentaries. Once completed, we will draft up scientific papers and publish in peer review journals such as African Ecology, Oryx and Koedoe.



#### 7. Looking ahead, what do you feel are the important next steps?

The most important next steps would be to publish our results and to establish a National Strategy Plan for Giraffe Conservation in Zimbabwe.

# 8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

Yes, the logo was used on my presentation at the South African Wildlife Management Association conference as a sign of appreciation for the great support we have been given. I have also used the name in all acknowledgements of seasonal reports that I have drafted up for ZimParks management. The Rufford foundation is also listed as an important donor in the annual Giraffe Conservation Foundation report.

#### 9. Provide a full list of all the members of your team and their role in the project.

Adriaan Jacobus Olivier – Lead researcher.

**Livingstone Hoda** – Field assistant who helps with data collection and administration work in Zimbabwe.

**Dr Richard Hoare** – Local veterinarian who helped us with the collection of all giraffes genetic samples across Zimbabwe.

**Dr Julian Fennessy** – Director of Giraffe Conservation Foundation who oversees all giraffe projects across Africa. Also, my supervisor for my PhD.

**Dr Alison Leslie** – my PhD supervisor at Stellenbosch University.

**Dr Michael Brown** – Research Fellow at Giraffe Conservation Foundation. Spatial ecology (GPS) reports were generated with his help and supervision.

**Roseline Mandisodza-Chikerema** – Chief terrestrial ecologist of ZimParks. All administrative work regarding the collaboration between GCF and ZimParks are overseen by her.

**Daphine Madhlamoto** – ZimParks representative to our project, and senior ecologist of Hwange National Park. All field work in Zimbabwe National Parks is done through her.

#### 10. Any other comments?

We would like to give a big thank you to The Rufford Foundation for their valuable support to giraffe conservation in Zimbabwe. This project would not have been able to run smoothly without your generous contribution.