

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Adriaan Jacobus Olivier
<b>Project Title</b>	The ecology of southern giraffe ( <i>Giraffa giraffa</i> ) in Save Valley Conservancy and Gonarezhou National Park, Zimbabwe
<b>Application ID</b>	30522-1
<b>Grant Amount</b>	£4,239
<b>Email Address</b>	16612566@sun.ac.za
<b>Date of this Report</b>	15 September 2021

**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 is ongoing and although we have collected the necessary field samples (171) from all major giraffe populations in Zimbabwe, it still needs to be analysed at the Bik-F Senckenberg lab in Germany.
Determining the population dynamics of giraffe in Save Valley Conservancy.				This objective has been fully achieved and results indicate that giraffe populations are doing well and on the increase in Save Valley Conservancy.
Determining the activity budgets of giraffe in Save Valley Conservancy.				This objective will be achieved in the near future. All field data have been collected; however, the data still needs to be analysed.
Determining the diet and browse availability of giraffe in Save Valley Conservancy.				This objective will be achieved in the near future. All field data have been collected; however, the data still needs to be analysed.
Determining the spatial ecology of giraffe in Save Valley Conservancy.				This objective has been achieved. GPS satellite data have been analysed over the past 18 months and seasonal reports have been produced for Save Valley Conservancy and ZimParks management.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.**

As with most projects over the past 18 months, our biggest unforeseen difficulty was the Covid-19 pandemic. This pushed back our research by at least 5 months, however, we ensured that once we got on the ground we worked as efficiently as possible to avoid any further delays. I also ensured that I had all our documentation in place before I arrived in Zimbabwe which allowed me to speed up the process of

securing our renewed research permits and my work permit. This have allowed me to spend more time in Zimbabwe and thus, stay up to date with our work.

**3. Briefly describe the three most important outcomes of your project.**

- 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 five countries (Angola, Botswana, Namibia, Zambia and Zimbabwe), is the largest trans-frontier park in Africa and is home to about 10% of all wild giraffe.
- 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.
- 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.

**4. What do you consider to be the most significant achievement of this work?**

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.

**5. Briefly 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 fund from our monthly rent contributes towards their salaries and provide them with work. We often also talk 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).

**6. Are there any plans to continue this work?**

Yes, we are halfway (12 months) through our work in Zimbabwe, and we plan to continue this work in Hwange National Park for another 12 months. This area is of great importance not only in Zimbabwe, but it also forms part of the KAZA TFCA and

will help with the implementation of the giraffe conservation strategy plan in this area, as mentioned above.

Initially, the second half of our research would have been conducted in Gonarezhou National Park, however, after careful consideration we decided it would be more constructive to move this research to Hwange National Park. This change in location does not in any way alter our project goals and objectives. The same ecological objectives as in Save Valley Conservancy (giraffe population dynamics, activity budgets, diet and browse availability and spatial ecology) will be followed in Hwange National Park, to set up a comparative study between the two areas.

**7. 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. I also recently (September 6<sup>th</sup>) presented my work at the South African Wildlife Management Association conference in Kruger National Park. Once completed, we will draft up scientific papers and publish in peer review journals such as African Ecology, Oryx and Koedoe.

**8. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?**

The grant was used over a period of roughly 11 months. This is 1 month shorter than the anticipated 12 months for the first-time grant received. The full length of the project will be a total of 24 months.

**9. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Local travel	362	362		This was used to get me to and from my research site as well as trips to the Zimbabwean capital, Harare, to renew and apply for permits.
Binoculars	103	0	-103	At the start of the project, a pair of binoculars was generously donated to me by Stellenbosch

				University and thus, we did not have to purchase one.
University registration fees	774	774		This was used to register me for one year at Stellenbosch University.
Fuel costs	520	1288	+768	Fuel costs were more than anticipated and additional costs were generously donated by a co-sponsor to our project, Ivan Carter Wildlife Alliance. Additional fuel was used for our giraffe genetic sampling across Zimbabwe.
Food costs	674	674		Food stipend was sufficiently used and allowed me to supply food while at the field research site.
Accommodation costs	1806	1750	-56	Accommodation costs came out slightly less than anticipated.
<b>TOTAL</b>	<b>4239</b>	<b>4848</b>	<b>+609</b>	The local exchange rate used below is from USD\$ to Pounds Sterling £.

**10. Looking ahead, what do you feel are the important next steps?**

Important next steps would be to complete research in Hwange National Park (field work and the fitting of 15 more GPS satellite units to giraffe in the park). This will give us a good indication of how different habitats in Zimbabwe affect giraffe behaviour and also what impact different management strategies (national park as compared to private land) and previous land use have on giraffe populations.

Additionally, it would be important to get our genetic samples analysed to help make informed conservation management decisions regarding giraffe populations across the country (e.g., consult on future giraffe translocations to avoid mixing of sub-species).

Thereafter, we will need to work towards setting up the first ever National Strategy Plan for giraffe conservation in Zimbabwe and in the bigger picture, for the KAZA TFCA.

**11. 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 and Save Valley Conservancy management. The Rufford foundation is also listed as an important donor in the annual Giraffe Conservation Foundation report.

**12. Please provide a full list of all the members of your team and briefly what was 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.

**13. 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.

As this research project is to continue for another 12 months, we would like to apply for a 2<sup>nd</sup> Rufford Small grant to support our work in Hwange National Park and would appreciate it if our application would be taken into consideration. Thank you very much.