

Final Evaluation Report

Your Details	
Full Name	Karl Sebastian Fester
Project Title	Conserving Namibia's scavengers: can vulnerable hyaenas help save threatened vultures?
Application ID	39436-1
Date of this Report	21 August 2024

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
Obtaining an adequate dataset on carcasses and vulture visitations				Although only 13 of the 14 planned sites were visited, enough data was obtained to address the research questions.
Local involvement and public engagement				All 13 visited sites had local involvement and education in the fieldwork, increasing awareness of local vulture and hyaena conservation status and improving scavenger perceptions. Continued communication with all 13 sites will continue for the foreseeable future.
Public education and international outreach				Project presentations were given at various sites, and the visiting international public and volunteers, when present, were involved in the data collection at 9 of the visited sites. Additionally, The results and findings of this study will be presented to a regional southern African and international audience at the Southern African Wildlife Management Association Conference 2024.
Dissemination of results for public conservation awareness				This project set out to investigate the effects of spotted hyaena presence on resource acquisition by threatened vultures, with the aim of determining if spotted hyaena presence is beneficial to vulture conservation. The results from the data gathered have indicated that carcass availability and carcass size,

				<p>both important to foraging vultures, are not significantly impacted by spotted hyaena presence. However, camera trap data monitoring scavenger activity at wildlife carcasses have shown that a higher scavenger diversity was supported where spotted hyaenas were present, and more carcasses were attended by vultures than in areas of spotted hyaena absence. These important results will be disseminated to the public and conservation managers throughout Namibia and southern Africa.</p>
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2. Describe the three most important outcomes of your project.

a). Successfully collecting data from 13 sites, resulting in 54 carcasses to enable analysis for the research questions. The analyses have thus far confirmed that the low spotted hyaena density in Namibia does not impact carcass availability nor compete with vultures for carcasses. However, over a seven-day period, carcasses in spotted hyaena present areas showed a higher diversity of vertebrate scavengers and a positive effect on vulture presence as when compared to carcasses located in spotted hyaena absent areas.

b). Sharing the ideas and purpose behind this project with locals and the public at each site. This resulted in many follow-up questions, and for one of the sites the abandonment of a planned carnivore control measure to reduce the local spotted hyaena population.

c). Creating multiple important connections with individuals and organizations within Namibia to share my results with and communicate further on implementation of this studies results into conservation actions.

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

1. At least two planned study sites had last minute reconsiderations due to various and unforeseen reasons and unfortunately could not host my project as initially planned. This resulted in a need to secure replacement sites meeting the project's criteria and considerable reworking of the fieldwork schedule while in the middle of data collection. Fortunately, there was considerable interest in the project, and much appreciated help from site managers and local friends, and it did not take long for new sites to be secured and scheduled in.

2. Half-way through the project's fieldwork portion the laptop computer used for data entry malfunctioned and crashed and had to be urgently replaced. The data was securely stored on an external hard drive, and I was fortunately not far from the capital city Windhoek when this occurred, so the laptop was replaced the following day.

3. The release of funds from the University of Queensland for the fieldwork was also interrupted due to a School of Science merger, and this delayed some funds by over a month. My main supervisor was still in Australia at this time and was instrumental in sorting it out with the University finance office.

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

The local communities involved in this project were comprised of the local staff employed or residing at the 13 different sites. Predominantly this was local staff employed in the capacity of site researchers, anti-poaching unit members, guides, and day labourers; some with their families living on-site as well and/or having a subsistence or communal farm elsewhere. By including these staff members in the fieldwork activities and teaching them to use the research equipment, they were much more interested in listening to me explain the intertwined relationship of vultures and hyaenas I was investigating. Although this project did not include a direct material or large-scale community capacity-building program, I believe the staff members at each site who were involved gained an informed view on large scavengers and this is knowledge they can share.

At the conclusion of the fieldwork, I divided up the research equipment to donate among the various sites most in need of, and with an interest in, building up a research capacity. I arranged the equipment transfer with site managers with the intention of the staff being continually involved in the equipment's use for their benefit and further education and learning. It is the aim for further community involvement once the results of the study have been analysed/published and local conferences can be organised/attended across Namibia at farmer's union meetings, environmental non-governmental organisation (NGO) meetings, and scientific talks and seminars hosted by the Namibian Chamber of Environment and the Scientific Society.

5. Are there any plans to continue this work?

With the results of this study, a public outreach/conference scheduling agenda is high on the priority list upon completion of my studies. Additionally, two sites have expressed considerable interest in the project and further collaboration. One of the sites is interested in setting up a research station, with a renewed view on spotted hyaena importance and no further willingness to reduce the local population, and the other site is interested in the reintroduction of large carnivores in their local environment including expansion of their protected area borders. This presents two future opportunities to continue this work and implementation of conservation actions based on the results of this study.

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

1. Through direct communication and data-sharing with all the sites, managers, NGOs, and staff involved in the fieldwork.

2. Through direct communication of results with the Vultures Namibia organization who also have connections with the Namibian Ministry of Environment, Forestry, and Tourism (MEFT). This will provide a good opportunity to have an audience with Namibia's influential higher-up policymakers.

3. Through submission of the results/findings to the Namibian Chamber of Environment (NCE) for their yearly Conservation publication.

4. Lastly, a full presentation of this study's results will be presented at the Southern African Wildlife Management Association Conference 2024.

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

The most important step moving forward is to share the results of this study with each of the involved study site cooperators, as well as with the contacts made during the fieldwork with Vultures Namibia, and the Namibian Ministry of Environment, Forestry and Tourism.

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 displayed during the presentations given at various sites, the University of Queensland, and the foundation was mentioned as an important supporter at all 13 study sites.

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

Name	Site	Role
Ulf & Kathrin Scholz	Ababis Guest Farm	Granting site access, orientation, accommodation, and support in field data collection. Also helped to grant me access to the local farmers' union meeting.
Adriaan & Chéri Mulder	Sandfontein	Granting site access, support in data collection, and accommodation.
Josef Nakakuwa	Sandfontein	Site orientation and field data collection support.
Michelle Rogers	Gondwana Canyon Park	Site access, orientation, and accommodation.
Jan & Kai Sturm	NamNau Habitat Reserve	Site access, orientation, accommodation, and field data collection support.
Mathias Mwaetako	Kanaan Desert Retreat & Neuras Wildlife Estate	Field data collection support.
Dawid Andries Reyneke	Kanaan Desert Retreat	Field data collection support.
François & Zané du Plessis	Kanaan Desert Retreat	Site access, accommodation support, equipment support.
Strydom Milho	Neuras Wildlife Estate	Field data collection support.
Ndundu Stefanus	Harnas Reserve	Site orientation and field data collection support.
Karen Codling	Okonjima Reserve	Site access, and accommodation support.
David Cisneros Tejera	Okonjima Reserve	Field data collection support and orientation.

Hanlo Fouché	TimBila Reserve	Site access, accommodation and field data collection support, and equipment support.
Theofilia Ndalimbikilwa	TimBila Reserve	Field data collection support and orientation.
Tanja Baetcke-Vilho	Zannier Reserve	Site access, accommodation support, equipment support.
Petrus Ndungula	Zannier Reserve	Field data collection support and orientation.
Heaven Ndatipo	Zannier Reserve	Field data collection support and orientation.
Jonathan Strijbis	Onguma Reserve	Site access, accommodation, and field data collection support and orientation.
Herman Jansen van Rensburg	Onguma Reserve	Field data collection support and orientation.
Manuel Weber	Onguma Reserve	Field data collection support and orientation.
David Meroro	Moorivier	Site access, and field data collection support.
Joliannes Basson	Moorivier	Field data collection support.
Berend & Fritz Reinhard	Kuzikus Reserve	Site access, accommodation, and orientation support.
Rick Bishop	Kuzikus Reserve	Field data collection support.

10. Any other comments?

With the completion of the fieldwork, the research equipment was divided up between the sites according to their needs for research capacity support. Some sites had well-established research programs with outside funding support in operation, so their need for additional equipment was minimal. The equipment was divided up as follows:

Site	Equipment donated
Namib Naukluft Habitat Reserve	2 Hawkray camera traps, 2 iron camera trap poles
Gondwana Canyon Park	1 Hawkray camera trap, 1 tent
Onguma Reserve	1 laser range finder
Kuzikus Reserve	8 iron camera trap poles and hiking shoes (personal) for the bushman trackers.
Okonjima Reserve	1 Hawkray camera trap
Harnas Reserve	1 Hawkray camera trap
Moorivier	1 Garmin etrex10 GPS
Sandfontein Wildlife Reserve	1 Hawkray camera trap
Ababis Guest Farm	1 Hawkray camera trap