

CEPF Funding Report 2015

The Conservation and Study of *Gyps africanus* by means of a Vulture Restaurant

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Introduction

We were awarded a \$20,000 grant from CEPF in 2013 to study the foraging ecology of the African white-backed vulture (*Gyps africanus*) in Swaziland. As we stated in our initial application by revealing how vultures forage we can better understand how to conserve them. The foraging networks that vultures form are only effective at a certain population size for a given area. Too few individuals and the value of networking is destroyed, ultimately endangering the remaining animals. By examining how they forage individually and collectively at a high temporal resolution our work hopes to shed light on a substantial area of vulture ecology.

Methods

As such we used the funding to prepare a site to capture the vultures at Hlane Royal National Park. This required lengthy preparation involving pre-baiting of the area with carcasses to get the birds habituated to landing and feeding. We also purchased a pair of GPS-GSM transmitters (Figure 1) which could record the movements of the birds.



Figure 1. Satellite transmitter fitted on an African White-backed Vulture at Hlane, Swaziland.

The devices were attached, with the assistance of Andre Botha (Endangered Wildlife Trust) to two vultures captured at Hlane on 12th May 2015 (Figure 2). We also encountered logistical challenges in finding a suitable supplier of transmitters appropriate for our study. And then there was a further delay whilst we waited for the transmitters to be assembled. All this meant that we were only able to fit the transmitters eighteen months after we received the funding.



Figure 2. An African White-backed Vulture being released at Hlane, Swaziland, after having a transmitter fitted, together with patagial tags and a metal ring on the leg.

Results

The information derived from these birds will allow us gain an insight into the home range of this species at a high spatiotemporal resolution. This is significant because the Swazi population of the species is understudied with respect to their movements despite being the densest breeding population of the African white-backed vulture in the world. We can report that the devices are functioning properly and have already yielded weeks of tracking data (Figure 3). Both birds have in fact already travelled long distances and entered South Africa. Given the recent establishment of the Savannah Research Centre at nearby Mbuluzi Game Reserve we will be able to ground truth the data we receive from the transmitters. Through this CEPF grant and the many publications that will follow we will be able to establish Swaziland as a centre of excellence for vulture research. Indeed, we believe that this project is only the beginning of what we hope will be a long term research scheme. The data are also being communicated to anyone interested in the work via the following website:

<http://kanead.github.io/research.html>

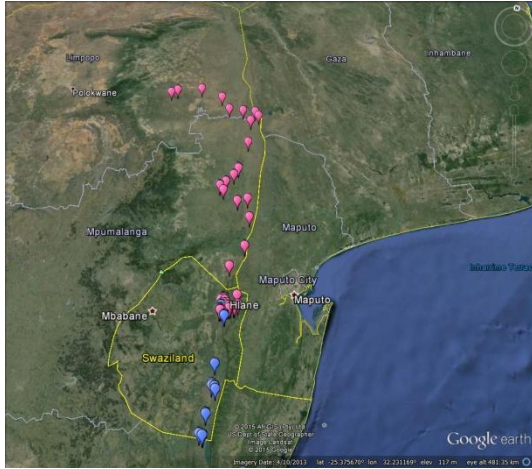


Figure 3. Data showing the movements over two weeks of the two tracked birds that were captured in Hlane Royal National Park on 12th May 2015. The different colours show the two different birds, and the arrow shows the location of their capture in north-eastern Swaziland.

Table 1. Financial Summary of CEPF Project. *These costs have yet to be deducted because we get the first 6 months of downloads for free. The remainder of the grant will cover these expenses should the trackers last that long.

Item	Cost
Bait for vulture restaurant	\$1,000
Maintenance of vulture restaurant	\$500
2 x GSM Transmitters from Microwave Telemetry	\$7,320
Handling Fee	\$34
Clearance Fee	\$34
Customs Duty	\$262
Customs VAT	\$1689
Deferment Fee	\$20
Download costs from transmitters	\$60 (per month)*
<i>Total</i>	<i>\$10,859</i>

Acknowledgements

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