EDITORIAL:
Restaurant News was conceived at a meeting of Vulture Conservationists held at VulPro in November 2014. The newsletter gives the opportunity for the exchange of information and sharing of stories and photos by individuals and organizations who operate vulture feeding sites and other interested parties. You can contribute, subscribe (or unsubscribe) to the newsletter by sending an email to: wneser@gmail.com Anyone is welcome to submit stories, photos, ideas, Questions etc for inclusion and advertising opportunities are also available. Edited by: Walter Neser.

Featured Restaurant: Oribi
By: Andi Ruffle
The Umzimkulu colony of Cape Vultures, located at Oribi in KZN, has been passionately safeguarded by local farmer Mike Neethling for many years now. Since the establishment of a vulture restaurant on the site in 2000, the colony has grown from strength to strength and now numbers over 120 individuals, with over 40 breeding pairs.

BirdLife Trogons, the local birdwatching club, became involved in late 2012, following a casual conversation between Mike and the then Chairman, Andy Ruffle. Mike had always wanted to build a hide at the restaurant and the bird club was looking to erect one in memory of their late Chairman, Barry Porter. The seed was sown.

This was a very ambitious project for the small South Coast club. Funding the construction would be a major task and then sustainability had to be considered to ensure the hide could be properly maintained. Visitors to the hide could also need to be escorted, as it would be on private property and the site is very sensitive.

With this in mind, a management plan was drawn up and it soon became apparent that the project was feasible.

In February 2013, the bird club launched an official appeal for funding. The initial response was slow, but UGU Southcoast Tourism (Pty) Ltd soon heard about the project and immediately recognised the unique tourism potential of such an attraction for its area and secured the funding for the construction.

The 8th of February 2014 was a proud day for the club, when the Barry Porter Memorial Hide (Oribi Vulture Viewing Hide) was officially opened with much fanfare.
With active marketing through a website and social media platforms, the hide quickly became very popular with photographers and birdwatchers alike.

Disaster struck in June 2014, when a veld fire ravaged through the grasslands and severely damaged the wooden hide. Although this was a major setback, the project had gone too far to just give up. Enough funds had been generated, from visits, to effect repairs, so the decision was made to persevere.

Visitors, for 2 hour vulture viewing visits, average about 40 per month, with every single one going away totally wowed by their up close experience with the vultures. They no longer see them as disgusting birds, but majestic and magnificent masters of the skies.

The hide itself is proving invaluable for both photography and monitoring. In 2013, 38 birds from the Umzimkulu Colony were fitted with patagial tags by Marburg University, Germany. Since January 2014, the project has submitted 163 re-sightings to the EWT and Safring databases, becoming the number one site for reporting tagged Cape Vultures in southern Africa. These include both ‘local’ and visiting birds from other colonies. A vulture visitor of note was C131. This bird had been tagged in Blouberg, was later seen in northern Namibia and then appeared on the cliffs at Oribi.

The Oribi Vulture Viewing Hide, in association with Mike Neethling, is very proud to be an emerging part of the global vulture conservation effort.

With determination, passion and the enormous generosity of people and companies, it’s amazing what can be achieved.

Andy Ruffle
Project Coordinator
Oribi Vulture Viewing Hide
Email: andy_ruffle@yahoo.co.uk
Tel: 039 695 0829
Cell: 072 893 3794
WhatsApp: 081 510 8333
Oribi Vulture Viewing Hide: http://vulturehide.blogspot.com/
Oribi Vulture Viewing Hide facebook Group: https://www.facebook.com/groups/oribivulturehide/
**Interesting Resightings:**

C131 came in to VulPro as a fledgling Cape Vulture on 27 December 2011 from Blouberg Nature Reserve where he had become grounded and brought in to the reserve by locals for reward. The Tag was fitted at Blouberg by David Pretorius He was released at VulPro after rehab on the 24th of March 2012 and was resighted at the center several times for the next 6 weeks.

After that, our next record came from Holger Kolberg in Namibia on the 10th of December 2012 when he visited Hotsas Waterhole in the Namib-Naukluft Park, 1300km from VulPro. Almost two years later, Andy Ruffle reported that C131 was at Oribi Gorge in KZN on 27 September 2014 which is 1711km from the Naukluft. Recently, Stratton Hatfield Photographed C131 (Now an Adult) at Antelope Park near Gweru in Zimbabwe, another 1254km to the north of Oribi. The three legs together total movement recorded adds up to 4265km, but is obviously just a fraction of the actual movements and we are looking forward to the next record of this bird.

**Mortality report 2015**

To date we have records of only one large poising event this year, let’s hope it stays that way, after the devastating count of ~3700 birds poisoned in 2014 around southern Africa.

The Hoedspruit incident this year was apparently targeting wildlife intentionally but is still under investigation as it was not the first incident on this property.

**Jan - May 2015**

<table>
<thead>
<tr>
<th>Cause</th>
<th>CV</th>
<th>AWV</th>
<th>LFV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poisoning</td>
<td>01</td>
<td>64</td>
<td>xx</td>
<td>65</td>
</tr>
<tr>
<td>Electrocutios:</td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
<td>10</td>
</tr>
<tr>
<td>Collisions</td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>xx</td>
<td>xx</td>
<td>xx</td>
<td>85</td>
</tr>
</tbody>
</table>
Adventures of a Reluctant Pilot

Part 1

On the 18th of December 2014 we collected a very weak grounded Cape Vulture fledgling from Marakele National Park near Thabazimbi after staff had picked up what they thought to be a dead vulture. It had been quite rainy and cloudy the preceding week and it looked like she became grounded due to the difficult weather conditions. Aside from a chip off the tip of her bill she looked like she just needed a bit of tlc and she would be on her way. However, after two days, she worsened and started fitting with a fever. We treated for head trauma and pulled her through, but the treatment was very strenuous on the kidneys, which then brought her down again for a third time, intensive care and sleepless nights eventually got her to the point where we could move her outside to the hospital camps and then later with the rest of the birds in the rehab flight enclosure where she could gain strength and regain her flight muscles.

Five weeks later on the 12th of Feb 2015 we released her at VulPro with a patagial mounted tracking device and a wing tag bearing the number 017. She remained at the centre for another month, never venturing more than a few kilometres from the centre and slept on top of the enclosures almost every night.

The last we saw of her was during ‘roll call’ on the 9th of March, after which she started exploring, foraging to the south west of the Magaliesberg and roosting at Scheerpoort and Nooitgedacht colonies, with an occasional visit to a vulture restaurant, but less than a month later she was ready for more and by the 4th of April was heading north, sometimes covering several hundred km in a day. On the 10th of April she was near Ghanzi in Botswana, 750km from VulPro. From there she headed north towards the Okavango and then turned west into Namibia, passing by the now extinct Waterberg Colony and an inactive restaurant at REST on the 24th, 1300km from VulPro. If she was flying in a straight line from VulPro to REST, it would have been an average of just under 100km per day, but her route covered more than 2300km thus far, with a max distance in a day of over 240km, reaching heights of 3500m above sea level but speed over ground of only 55km/h, so she did not have any good tailwinds to help her on her way.

With her appetite for adventure (and carrion) not yet satisfied, she headed another 700km
Adventures of a Reluctant Pilot

(Continued from previous page).

north into Angola onto the Huila Plateau and further north to the Mataala Reservoir on the Kunene River, a mere 1850km from VulPro and less than two months into the journey. At the time of writing (7th of May) she was still in Angola, but slowly heading in a south-westerly direction. Her Track distance to date stands at a whopping 5450km! Check the next edition to follow the rest of her adventures as they unfold, and lets hope she returns safely.

017 and friends a week after release at VulPro
An introduction to camera trapping of wing-tagged vultures in southern Africa

by Beryl Wilson

INTRODUCTION

The use of motion or heat-triggered camera traps to collect data has become an increasingly popular tool in conservation and ecological research. It offers an unobtrusive, unbiased and practical method of supplementing field observations, particularly in remote situations or when personal observation is not possible. There is substantial information available for the use of camera traps to monitor mammals but virtually nothing on the techniques and methods for use on birds, especially vultures. Discussed here is a summary of the basic methods of deployment, camera settings, data collection and various other factors to optimize monitoring success from the outset.

STEP 1: Before using a camera trap, bear in mind:

It is important that camera trap users understand their legal responsibilities prior to deploying their devices. Most legislation is aimed at protecting the privacy of the public and the community. In the case of camera traps used for wildlife monitoring and research purposes, there is no intent to capture images of people, but the onus does fall on the researcher to advise the public and local staff of the presence of the camera traps, although it is not necessary to say where and when the devices will be in use.

Bear in mind also that advertising the presence of a camera trap does increase the risk of theft of the device or damage to the equipment. These risks need to be evaluated and appropriate mitigation measures taken to prevent incidences. Images of people captured during research must be handled appropriately and responsibly, and publication of these images needs to be avoided.

From an animal ethic view point, no specific current legislation exists in South Africa governing the use of camera trap devices, but researchers can be expected not place the traps in such a way as to harm or injure, or unduly disturb animals in the target area. It also goes without saying that researchers need permission to deploy the camera trap if they are not personally the owner or manager of the property on which the device is to be used.

STEP 2: Selecting a equipment and supplies

With this astounding array of makes and models, where does the average person start? Here are a few easy pointers:

- **Identify your budget**: As with most projects, budget restraints often determine the way forward. When monitoring vultures, multiple units are not required as with standard mammal monitoring surveys. However, these devices have a limited life and are generally not repairable. Most last only as long as their warranty period, human and animal tampering aside!

- **Camera selection**: Select a single camera with highest possible megapixels currently available as your goal is zoom in to read wing-tags. Quick trigger speeds, fast recovery times, long detection ranges, wide detection zones are somewhat less important in this monitoring scenario. Consider protective weather-or tamper-proof housings. More recently, some camera models offer MMS features. By sending the images directly to a mobile device/s via a cellular network (multimedia message or email) it is possible to have information about current events at the deployment site. This is optional, and will push up initial setup costs as well as ongoing running budgets, but can provide vital information instantly to the researcher in certain situations.

  **Consumable items**: Do not forget to budget for consumable items for the duration of the camera trapping exercise. Consider the following:
  - **Memory cards**: Budget for at least two fast 16 Gig SD cards which can be quickly swapped out.
  - **Batteries**: Lithium batteries are recommended by most manufacturers and are significantly superior because of their sustained capacity and high-power output. They are less affected by extreme cold weather but are costly.
  - **Food provision**: Assuming that you will be monitoring at an already established vulture feeding spot, restaurant or water hole, you still need to consider your ability to provide carcasses at the camera site on a regular basis! Since this food is only intended as a supplementary safe feeding lure, carcass provision at the rate of one every 5-10 days is sufficient, but will be dependent on how many vultures are present and how quickly the carcasses are completely utilised. If carcasses have to be bought and/or moved to the site there will be additional expenses incurred. Access to storage facilities such as a walk-in freezer will be an advantage when there are surplus carcasses.

- **STEP 3: Camera settings**

Read the manufacturer instructions! Download a PDF version of the manual onto a portable device for field reference purposes. The final camera settings that will be used will depend largely on the camera trap itself as well as the research aims, but the following settings are suggested for vulture patagial tag monitoring and should deliver usable data from the first deployment. The following are recommended settings:

- **Time, date and temperature**: Digital images are stored with time and date data, but for this to be accurate, remember to set these values at the time of deployment. Select °C but remember that the temperatures recorded, particularly in daytime temperatures, are not true reflections of ambient temperatures and will differ due to position and degree of shade.

- **Sensitivity**: Camera traps are triggered using a passive infrared (PIR) heat-and-motion detector that recognises variation in heat signatures anywhere within the PIR’s field of view. In this scenario however, since the camera trap will be aimed downwards to the ground, surface temperatures are usually very high and it is best to select the highest possible setting.
**STEP 4: Field deployment**

There are a number of general and specific conditions that must be considered when placing a camera trap in the field to optimise the focus area of the images, and to keep the unit in a safe and consistent position.

**Access:** The general study area must be accessible to the researcher at all times.

**Camera trap placement:** Ideally, the camera trap should be placed about 1.5 – 1.6 m above the ground and angled ±10° downwards directly at the carcass. Orientating the camera traps to the south, south-east or south-west will prevent the camera facing into the sun resulting in false triggers and improves the image quality. It is essential to mount the camera trap using at least a metal plate, chain and locks to prevent tampering or theft. Ideally the anchor device is a dedicated post in an optimal spot. Avoid using a perching tree if possible. Vultures landing and taking off can affect the alignment of the camera trap, and they will spend hours tampering with the unit and/or defecating on it which leads to corrosion of the seals and locks.

**Dedicated feeding area:** A very important part of the monitoring success is the permanent placement of a camera trap at a dedicated feeding site such as a well-managed vulture restaurant which contains at least an open area for flight, ample suitable perching opportunities and a shallow water feature suitable for birds to bathe in after feeding.

**Food provision:** Food should be regularly provided at a rate at which the birds can reasonably consume without it becoming their sole food source. Whole carcasses are preferred as they are less appealing to crows and jackals. All carcasses must be as fresh as possible; veterinary drug-free, and lead-free. Open the abdominal region and deeply score the skin of the entire carcass to allow the birds immediate access to the meat. If possible, turn the carcass over 24 hours later to allow birds to feed on the unexposed sections. Clear away old carcasses. Keep a carcass register.

**Food placement:** Carcasses should be anchored to the ground to prevent them from being dragged out of the detection zone of the camera. Use a large standard driven into the ground with a chain and lock. The field of view for most camera traps is about 43 - 52°, so carcasses must be centralised in the detection zone. Use the walk-test function on the unit, or review some test photos in another digital camera or tablet device before permanently positioning either the camera or the carcass anchor spot. Carcasses should be orientated lengthways away from the camera to maximise side-on viewing opportunities of birds with wing-tags.

**Battery and memory card replacement:** Use every food provision opportunity to check the batteries and exchange the memory card. Clean the lens of dust and faecal wash. You will quickly become aware of how long a set of batteries lasts in your particular unit.

**STEP 5: Data management**

Storing camera trap images and processing them is an enormous management issue, so it is best to consider this from the outset rather than attempt a solution at a later point. Much of this will depend on your planned use of the data that can be obtained from the images. Here are some guidance tips:

- **Exchange the memory card rather than just downloading** it on every visit to the camera trap to prevent errors occurring as a result of field conditions.
- **Prior to the survey it is essential to have some research plan** as to what you will be doing with the data as this will determine how you process and store the images as well as analyse the data later. Store the data on the off-charge that other data may be retrieved at a later point.
- **Consider some data cleansing** to remove irrelevant nocturnal images.
- **No device is infallible so back-up as much is realistically possible.** Consider using a portable hard drive that can be locked away safely and also prevent the needless us of valuable space on a computer. Create a separate folder for each time period covered by the images e.g. 2014-01-30 to 2014-02-18 to aid sorting and retrieval. Never work directly from the memory card.
- **Design a simple data sheet** that meets your needs in Excel to store the data. For the purposes of data collection on this project, a re-sighting record was considered as a bird being present at least once on that day, regardless of how many times it appears in images. If the bird is present the following day, this is a new re-sighting record.
- **View images on a tablet device** which have simple, swift zoom features and excellent pixel quality allowing even birds at a fair distance from the focal centre of the camera to still be quickly viewed. Save interesting images to a special file for later use in newsletters, reports and presentations.
- **Data sharing** is an important part of this monitoring so it is essential to share this data especially since the vultures wide-ranging. Apart from submitting the re-sightings data to the Birds of Prey Programme, it is courtesy to inform other regions as to the presence of one of their birds in your region. The favour is sure to be returned at some point!

Version: May 2015. Contact the author berylwa@gmail.com for detailed instructions or further information.
Camera trap settings for the monitoring of wing-tagged vultures in southern Africa

by Beryl Wilson


Contact the author berylwa@gmail.com for detailed instructions or further information.