

# Let vultures soar



Lappet-faced Vulture (*Torgos tracheliotus*) in flight. Largest of the African vultures at 105 cm, it dominates all others when feeding at kills. Kalahari Desert, Northern Cape, South Africa.

By Kerri Wolter, Walter Nesor, Kate Webster and Maggie Hirschauer

# Southern African Vultures

## Range and Status

### Cape Griffon

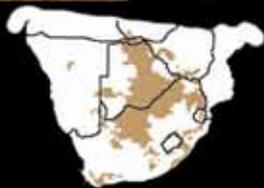
*Gyps coprotheres*



**Status:** Vulnerable  
 Restricted to southern Africa by a lack of the widespread distribution of all the vulture species.  
 Status as a breeding species is uncertain. Declining and near-threatened.

**Wild Population:** ~10,000

**Length:** 100-110 cm  
**Wingspan:** 18-20 m



### African White-backed Vulture

*Gyps africanus*



**Status:** Endangered  
 Africa's most abundant vulture species, however it may have lost 90% of its population in the last three generations (1980-2000).

**Wild Population:** ~10,000 (1992) - 6 Southern Africa

**Length:** 84 cm  
**Wingspan:** 11-12 m



### Rüppell's Griffon

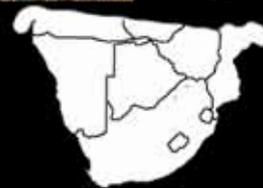
*Gyps rueppellii*



**Status:** Endangered  
 Very rare vulture, found in southern South Africa. Possibly one of the largest.

**Wild Population:** unknown

**Length:** 90 cm  
**Wingspan:** 15-16 m



### Lappet-faced Vulture

*Torgos trachelotos*



**Status:** Vulnerable  
 Has a good regional population, but declining in some areas. The region range is the high altitude mountains of Lesotho.

**Wild Population:** unknown

**Length:** 78-100 cm  
**Wingspan:** 14-15 m



### White-headed Vulture

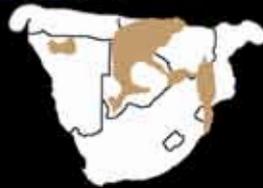
*Trochoceros occipitalis*



**Status:** Vulnerable  
 In South Africa, confined mostly to protected areas of the east.

**Wild Population:** unknown

**Length:** 90 cm  
**Wingspan:** 11-12 m



### Hooded Vulture

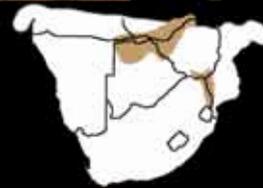
*Accipiter hoodius*



**Status:** Endangered  
 In South Africa, restricted to the southern Kalahari of the Orange River valley and the Kruger National Park and occurs in other nearby habitat types. More common in areas north of the Orange River (the Orange and Orange valley).

**Wild Population:** unknown

**Length:** 82 cm  
**Wingspan:** 13-14 m



### Bearded Vulture

*Gypsbuteo barbatus*



**Status:** Critically Endangered  
 In 2004, almost all Lesotho vultures were killed. Status: Extinct. Only one individual seen since.

**Wild Population:** ~100 (one known)

**Length:** 100-120 cm  
**Wingspan:** 18-20 m



### Egyptian Vulture

*Neophron percipillatus*



**Status:** Regionally Extinct  
 Formerly widespread and abundant throughout Southern Africa.

**Wild Population:** Regionally Extinct

**Length:** 68-70 cm  
**Wingspan:** 10-11 m



### Palm-nut Vulture

*Gypohierax angolensis*



**Status:** Least Concern  
 In Southern Africa, range restricted to the east coast from northern K26, and north to Mozambique. Only a few pairs are known to breed within the range.

**Wild Population:** ~10,000

**Length:** 80 cm  
**Wingspan:** 12-13 m



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<http://www.vulpro.com>

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# WHAT IS A VULTURE?

A vulture is a large bird that soars through the skies using thermals. They feed predominantly on carcasses and have extremely large and strong beaks, large but weak feet and are majestic while soaring through the skies often in a circular motion.

## Vultures and farmers

Most farmers work closest to the environment and depend on the environment for food production. Vultures, as part of this environment, therefore play an important role in farm management.

Vultures take on the following tasks in agriculture.

## The clean-up crew

This comes at no cost. Vultures have incredibly good eyesight and are able to spot a carcass

from at least 2 km away. They are efficient eaters and can consume a large carcass within an hour.

## The recycle crew

Vultures are at the top of the ecological cycle and therefore are the recyclers of meat by consuming any dead livestock. Vultures of different species will eat on different parts of the carcass to be able to recycle the whole carcass with no wastage.



### The medical crew

By consuming a carcass, they are preventing the spread of diseases such as anthrax and rabies. They will also prevent water from becoming contaminated by rotting carcasses. The pH of vultures' digestive track is extremely acidic and any harmful bacteria are automatically destroyed.

### The spotting crew

Like drones, they are the eyes in the skies alerting the farmer to a problem. The problem could be predator- or disease-related allowing the farmer to act accordingly.

Vultures, however, face numerous problems owing to human intervention and the farmer can work at mitigating these.

Problems vultures face, include:

- loss of habitat
- changed farming practices
- persecution
- veterinary drugs
- power lines
- concrete 'dam' reservoirs
- lack of safe food supply

### Loss of habitat

Problems include loss of habitat. Bush encroachment has led to



minimal suitable landing spots. This can prevent vultures from finding the carcasses. In turn, this will lead

to an increased risk of the spread of diseases. Veld management is required.





### **Lack of safe food supply**

With changing land-use and agricultural practises, food availability for vultures is a problem.

Vultures play a crucial role in the ecosystem but the task for ensuring their survival lies mainly on the shoulders of farmers.

### **Vulture restaurants**

Successful husbandry of livestock has left less dead stock for vultures to feed on. Farmers often bury their dead animals, which leads to a greater food shortage for vultures. Bone

### **Changed farming practices**

Land-use patterns and improved livestock health control has led to a reduction in the supply of food for vultures. This can be remedied by establishing vulture restaurants or artificial feeding sites for vultures.

### **Persecution**

Persecution, direct or indirect has played a significant role in the survival of this species. Responsible predator control management is vital to ensure the survival of all vultures.

### **Drugs**

Improved farming methods through various dips, doses and inoculations have had a negative effect on the survival of vultures. Non-steroidal anti-inflammatory drugs (NSAID) such as diclofenac have almost wiped out the Indian population of vultures. Farmers must prevent vultures from accessing stock that have been injected with any NSAID drugs or have been euthanised.

### **Power lines and reservoirs**

Man-made structures such as reservoirs and power lines have become major obstacles for these birds. Reservoirs can either be covered with netting or a floating stick device. Power lines can be adapted to prevent electrocutions and collisions and the farmer must collaborate with Eskom in this regard.





abnormalities believed to be calcium deficiency in their diets also plays a significant role in the high mortality rate of young birds.

### How can the farmer help?

Establish a vulture restaurant where these birds are able to access a reasonable constant supply of food. This becomes a supplementary feeding site for these birds.

A vulture restaurant is a site where safe food such as carcasses are regularly placed for vultures at a particular designated spot for the sole purpose of supplying safe food for vultures.

### How does one do this?

Take the following into consideration when choosing the site of your vulture restaurant:

- terrain
- prevailing winds
- accessibility
- location of power line structures
- surrounding physical environment
- other factors

### Terrain

A suitable site for a restaurant will be an open area with few trees to allow the birds to locate the food from a distance. Remember they have very good eyesight, however, if the carcasses are hidden, they will not be able to locate them. The bottom of a valley is also not suitable for this reason.

### Prevailing winds

It should preferably be on an elevated area or slightly sloping hill with access to prevailing winds to allow

the vultures to take off. Vultures are actually poor flyers and need thermal waves to rise up into the sky.

### Accessibility

Two factors play a role here. You need to access the area with relative ease to place carcasses out and manage the area. Sec-

ond, it must not be too accessible for the public as vultures are very sensitive to disturbance and prefer a quieter environment when feeding.

### Location of power line structures

Power lines have been one of the biggest reasons for vulture mortality. A suitable site should be established at least 2 km away from power lines. Structures within the area should also be adapted if possible.

### Surrounding geophysical environment

There should be some koppies and a few trees for the birds to roost on after feeding. This is where the unsafe power line structures are often used to the detriment of the birds. If one does not have such physical features close by, you could erect a basic roosting structure with some old poles a short distance from the restaurant.



## Other factors

Vulture restaurant must not be placed near an active airstrip. This could have serious consequences. Fences pose a problem for vultures and can cause damage to the vultures taking off after feeding. A fence should not be within at least 100 m from the vulture restaurant.

Fencing off the restaurant is not recommended as this limits the opportunities for the vultures to feed; however, should this be required, create a wide area to allow the birds to land and take off after feeding. Remember, vultures need a longer “runway” for taking off after feeding owing to their size and weight.



Once a suitable site has been chosen, management is crucial.

### How to manage the site?

Take the following into consideration for managing the site:

- food supply
- cleanliness
- maintenance

### Food supply

Vulture restaurants are normally supplied with livestock that have died on the farm. To increase the amount of food delivered to the vultures it will pay to collaborate with neighbouring farmers.

There are, however, a few things to keep in mind:

- Do not put out carcasses of animals



that have been put down using drugs such as barbiturates, or that have been treated with non-steroidal anti-inflammatory (NSAID) drug such as sodium diclofenac. It will kill them.

- If you are not sure of the origin of the carcass as well as whether it is potentially safe, avoid putting out this carcass.
- If the animal has been shot with a lead bullet, make sure to remove the part of the animal where it has been shot (in most cases this would be the head).
- Open the carcass for the vultures by slitting the skin along the belly and chest so they can access the insides of the carcass. (This is because of the absence of the lappet-faced vulture, which would have done this). You can also slit open the skin on the legs too.
- Vultures soon learn to identify

'good' restaurants and will regularly return to pick up this supplementary food supply.

### Cleanliness

Keep your vulture restaurant clean and free from any other foreign objects as vultures may either consume these get injured by them. Remove all ear tags before placing out the carcass. Just as we would like to eat off a clean table let them eat from a clean environment!

### Maintenance

The grass should be kept short around the vulture restaurant to help with cleanliness and maintenance. Remove bones and skins or uneaten carcasses at least once every two months. Approximately every four months, splinter/break the bones of the carcasses into small pieces to supply the necessary calcium supplement the vultures need. In the past, scavengers such as hyenas would have left splinters of bone, which the vultures would have consumed. Remove all alien vegetation around the site as well as any bush encroachment.

Remember by setting up a restaurant, you have gone into partnership with these magnificent birds. You do not have to do this alone but can work together with

your neighbours to ensure a constant food supply. Should you be able to 'stockpile' your food supply, use a walk-in freezer or cold room!

### Carcasses containing any of the following products should never be left to vultures:

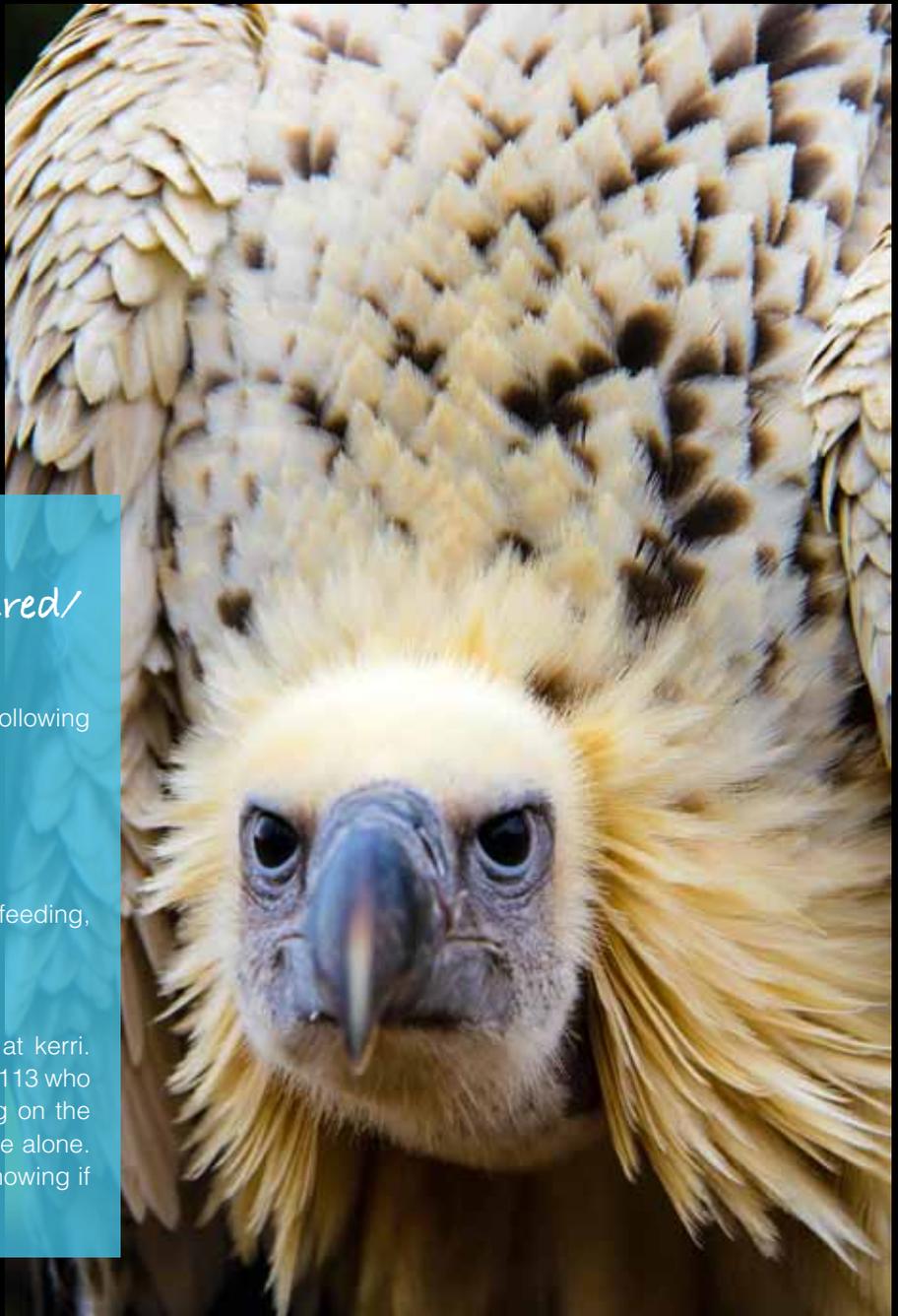
- Barbiturates (used for euthanising animals such as phenobarbitone, pentobarbital etc.).
- Sodium monofluoroacetate – a natural toxin contained in some



An X-ray was taken to help determine cause of death and a piece of shrapnel was found in the GI tract. One of the veterinarians at our cooperating clinic performed a necropsy and found the piece of lead shrapnel at the bottom of the stomach about to enter the small intestine. Source: <http://www.soarraptors.org>

plants, e.g. gifblaar *Dichapetalum cymosum* that may be ingested by livestock or game causing death. It is also used in collars to kill damage causing animals such as jackal on small stock farms

- Non-steroidal anti-inflammatory drugs (NSAIDs) used to treat a variety of ailments but lethal to vultures;
  - o Sodium diclofenac (active ingredient of Voltaren)
  - o Meloxicam and also known as Metacam is the only NSAID registered in South Africa that is safe for vultures.
- Antibiotics, especially tetracycline or penicillin.
- Lead, the main source coming from carcasses shot with lead-containing bullets which fragment on impact into many small (often microscopic) pieces; vulture mortality has been linked to lead ingestion.
- Dips, in particular those containing organophosphates
- Other deadly agricultural products include strychnine, aldicarb, monocrotophos, methamidophos,



## What to do when you find a grounded/injured/tagged vulture

First, if a tagged bird, record the following information:

- Date
- Location
- GPS coordinates
- Address
- Behaviour of the bird such as feeding, roosting, breeding, etc.
- Observer's contact details

Send the information to Kerri Wolter at [kerri.wolter@gmail.com](mailto:kerri.wolter@gmail.com) or phone 082 808 5113 who will advise you what to do depending on the circumstances. Never leave the vulture alone. It may die or disappear without you knowing if it survived, died or was predated on.

## How to handle a vulture

- Catch the vulture by grabbing its neck, just below the jaw bone from behind. Do not grab lower as the bird may turn its head around and bite you. Do not grab higher as you will lose your grip and may cause injury to the head, especially the ears or eyes of the bird.
- Use your thumb and forefinger around the back of the neck from behind the bird's head, with fingers reaching around to be against but below the jaw bone with the pressure on the sides of the neck to avoid suffocating the bird by constricting the oesophagus.
- If you do have your hand around the front of the bird's neck, remember the oesophagus is incredibly fragile and can easily be crushed if a bird struggles and the handler grips too hard.
- You can be firm but not rough and not too tight, as you do not want to hurt the bird.
- Once you have the head secured, quickly "hug" the vulture with the upper part of your arms keeping the wings against the bird's body.
- At the same time, with the arm that is not holding the head, you can take hold of the feet or simply hold the bird with the feet/legs below your arm but with the bird's legs stretched out downwards towards the tail, with your arm covering the thighs.
- Make sure your arm is covering the birds legs just above the tarsus and not above, as the bird will be able to lift its legs and feet high enough to grab your arm in order to try free itself, often injuring you.
- Hold the bird upright in front and in the centre of your body with both elbows 'hugging' the bird's wings from the sides to keep the wings closed and under control with the birds back against your chest.
- If the bird struggles, simply "hug" the bird tighter and use your elbows to prevent the wings from escaping your grip.



**AD**



### Objectives:

- Vulture rehabilitation
  - o Collect injured, grounded and disabled vultures
  - o On-going monitoring of released vultures using patagial tags and GSM/GPS devices
- Distribution, dispersal and foraging ranges of vultures
  - o Tracking Magaliesberg Cape vultures using patagial tags and GSM/GPS devices
  - o Monitoring of vulture restaurants and recording vulture re-sightings i.e. patagial tags and photographs
  - o Tracking African white-backed and Cape vultures, which frequently visit Mankwe Nature Reserve, adjacent to Pilanesberg
  - o Monitoring and tracking Cape vultures from the Manoutse breeding colony near Kruger National Park
  - o Recording and keeping a database of all vulture re-sightings related to the B-series of patagial/wing tags
- Cape vulture breeding monitoring (four largest colonies globally):
  - o Magaliesberg
  - o Kransberg
  - o Blouberg
  - o Manoutsa
- Veterinary and ecological research related to vultures:
  - o Researching the effects of lead and NSAIDs on vultures
  - o Surveying and studying vulture restaurants
  - o Researching the role vultures play in the spread of diseases
  - o Ongoing research related to providing veterinary treatment for vultures (i.e. for snake bites, poisonings etc.)
- Cape Vulture breeding and reintro-

VulPro, established in 2007, approaches vulture conservation in an integrated, multidisciplinary fashion, with the benefits from the programme accruing to both vultures and society at large. VulPro combines education and good science, with networking, capacity building and knowledge generation. The veterinary disciplines of toxicology, pharmacology, clinical pathology and medicine are combined with the science of cellphone telemetry and the banking of genetic resources, with the goal being to improve the well-being of our natural resources to the ultimate benefit of society. In this regard, VulPro engages in a number of interrelated activities, and uses a variety of resources, in endeavouring to meet its objectives.

- duction programme (Namibia)
  - o Creating a safer environment for vultures in Namibia.
  - o Rebuilding the Cape vulture population in Namibia.
  - o Monitoring the Cape vulture population in Namibia as part of a national avian scavenger population-monitoring programme.
  - o Providing an effective information, outreach, education and information sharing platform for vulture conservation as well as facilitating collaborative conservation support in Namibia and the region.
- Vulture educational and awareness programmes
  - o Holding talks and public displays
  - o Conducting workshops and training
  - o Assisting with farmer/vulture conflicts

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