

VULTURE WING-TAGS AND LEG-RINGS – MONITOR, RECORD and REPORT

Report all vulture sightings, scientists use this data to help conserve global vulture populations. This information can be used to understand:

- The biology and movement of vultures and other scavenging animals.
- The age structure and seasonal populations of vultures feeding in the area.
- Changes in vulture population estimates.
- The need for, and effects of, supplementary feeding vulture stations.

Vultures can be individually identified with wing-tags or numbered leg-rings. Reports of any marked bird provides valuable information for the conservation of these endangered species. **Namibia's wing-tags are yellow with black alpha-numericals.** Colour leg-rings are no longer used for identification and colour leg-ringed vultures are unlikely to be seen.

REPORT TAGGED VULTURE SIGHTINGS

Include the following information:

- Your name and contact details
- The Date and Time
- Wing-tag description (colors, letters and numbers)
- The location (GPS coordinates preferred)
- A photograph if possible

SEND THE REPORT TO:

VULTURES NAMIBIA

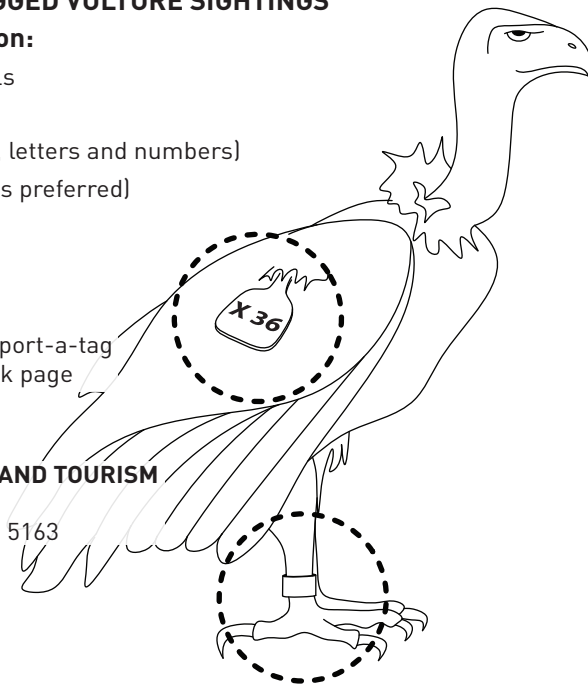
www.vultures-namibia.com/report-a-tag
The Vultures Namibia Facebook page
felix@afol.com.na
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MINISTRY OF ENVIRONMENT AND TOURISM

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SAFRING

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INJURED OR POISONED BIRDS

Handle injured or poisoned birds with care. Always wear gloves. Put the bird in a quiet, dark, well ventilated space - if using a box - it must have air holes. **CALL FOR HELP**

+264 811290565 OR +264 61264256

Liz.narrec@gmail.com



VULTURES IN NAMIBIA

Vultures provide the most efficient clearing of carcasses and offal across lands in Africa. This "Vulture Management Guideline" includes the what, why, when, where and how of supporting and ensuring the safety of these useful birds.

ABOUT VULTURES

Southern african vultures are 'old world vultures' belonging to a total of 16 species found in Africa, Europe and Asia. 'New world vultures' are native to North and South America. Of Africa's 11 vulture species, seven can be seen in Namibia. All of these are regionally listed as either critically endangered, endangered, or vulnerable by the International Union for the Conservation of Nature (IUCN). Within Namibia's borders and list of Red-Data species all seven are endangered or critically endangered. Two are locally extinct as a breeding species.

In southern Africa, the vultures' breeding season begins in May with courtship and nest preparation, followed by two months of egg incubation and a further two months of nestling growth. Youngsters fledge (leave the nest) from September but parents still offer food for some months, often at the natal site during what is known as post-fledgling dependence period.

As a scavenging bird of prey, vultures are a key component to maintaining a healthy ecosystem. Soaring high above the ground, vultures use their excellent eyesight to scan the landscape below looking for carrion, or to follow other birds and even mammal scavengers that have already found a dead animal. On long, broad wings with finger-like tips, vultures are expert at using air-currents. In order to take to the air after a feed they take a short run with wings held open. Once air-borne the bird flaps strongly until finding a thermal, a moving column of warm rising air. Vultures then use the thermal to gain height, only flapping if there is a need to change direction or speed. If the thermal weakens the bird glides until it finds and joins another thermal.

VULTURE FEEDING-SITES

In 1987, Namibia's first vulture feed station aimed to provide regular and uncontaminated food to a fast dwindling population of the country's last breeding Cape Vultures. In South Africa, vulture feed-stations had already been developed to support the Bearded Vulture colony in Kwazulu Natal from 1966 and a Cape Vulture colony in Gauteng province from 1978. Today conservation officers in southern Europe manage feed-stations to revive and support their vulture populations through providing regular and sufficient safe meat.

ANTIBIOTICS - If an animal was treated with an antibiotic more than 72 hours before dying the whole carcass is presumed safe for the feed-station. The liver and kidneys are the organs that eliminate drugs and may contain high concentrations of the injected product.

TRADING AS	ACTIVE INGREDIENT/USE	IMPACT ON VULTURES	ACTION REQUIRED
Gentamycin® Berenil® Veriben® Forray® Imizol® Imidox®	Antibiotics are used for a range of conditions. Especially Rewater/tick-bite fever in Cattle	UNSAFE/LETHAL These products have a withdrawal period in meat .	If an animal has died in less than 72 hours of long-acting antibiotic, cut out the muscle mass at the injection site and remove the liver and kidneys from the carcass.

DIPS- TANK and SPRAY-DIPS are poisons that can be highly toxic to fish, birds and people. Check the product's active ingredient and know the safety precautions.

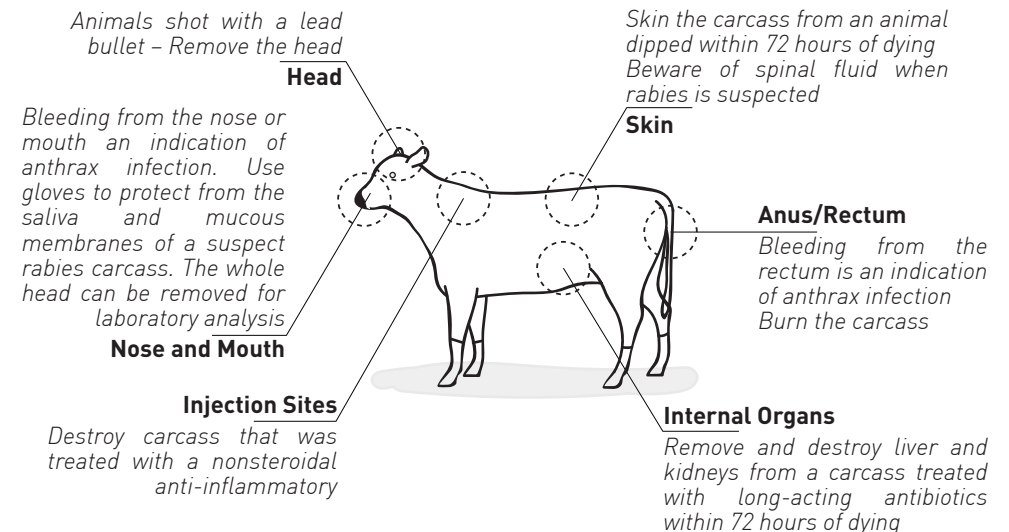
TRADING AS	ACTIVE INGREDIENT/USE	IMPACT ON VULTURES	ACTION REQUIRED
Front-line®. Dectomax® Bayticol® Or any other parasiticide, plunge-dip, spray, jetting, line -spot or injectable	Fipronil Doramectin Flumethrin Organophosphates Amitraz Carbamate External parasite control / Ticks and Mites	UNSAFE/LETHAL If the animal was treated less than 72 hours prior to dying.	If the animal died within five days of being dipped for external parasites the carcass should be skinned. Vultures should not be fed the carcass of an animal that had died within 72 hours of treatment.

ZOONOTIC DISEASE - PERSONAL PROTECTION

USE PROTECTION, GLOVES AND A MASK, AS A PRECAUTION WHEN HANDLING MEAT IN CASE OF ANY ZOONOTIC DISEASE.

A carcass bleeding from the nose or rectum may indicate an anthrax infection. Anthrax must be reported to veterinary services. The carcass must be burnt. Animals that have died from rabies can be safely consumed by vultures. Gloves should always be used when handling a carcass.

BEFORE PLACING A CARCASS AT THE FEEDING SITE - CHECK:



SAFE CARCASS AND OFFAL DISPOSAL

CONTAMINANTS IN MEAT CAN KILL VULTURES AND OTHER BIRDS OF PREY! ALL CARCASSES AND OFFAL SHOULD BE HANDLED WITH CAUTION!

Ingesting lead shot, lead bullets, agricultural chemicals and some veterinary drugs will cause illness or fatalities in vultures and other birds of prey.

IMMOBILIZATION AND EUTHANAZIA - NEVER SUPPLY A CARCASS that has died under an anesthetic or from an immobilizing or euthanizing injection.

TRADING AS	ACTIVE INGREDIENT/USE	IMPACT ON VULTURES	ACTION REQUIRED
Euthanze® Euthapent®	Pentobarbitone	LETHAL	BURN WHOLE CARCASS
M99® Zoletil® Dormicum® Xylazine® Medetomidine® Detomidine® Butorphanol®	Pentobarbitone	UNSAFE/LETHAL	BURN WHOLE CARCASS
Lead	Lead	UNSAFE/LETHAL	Remove the bullet or lead fragments from affected areas

PAINKILLERS AND ANTI-INFLAMMATORIES - NEVER SUPPLY A CARCASS that has died within a week of the last treatment with painkillers and non-steroidal anti-inflammatories (NSAID). These are Highly Dangerous to vultures and other birds of prey.

TRADING AS	ACTIVE INGREDIENT/USE	IMPACT ON VULTURES	ACTION REQUIRED
Diclofenac® Voltaren® Cataflam®	Diclofenac Sodium Diclofenac Diclofenac Potassium	LETHAL Killed up to 98% of vulture populations in Asia	BURN WHOLE CARCASS
Ketofen®	Immobilization	LETHAL	BURN WHOLE CARCASS
Tomanol® Phenyarthrite®, Equipalazone®, Fenylbutazone®	Phenylbutazone	LETHAL	BURN WHOLE CARCASS
Finadyne® Cronyxin® Hexasol® Pyroflam®	Flunixin	UNSAFE/LETHAL	BURN WHOLE CARCASS
Quadrisol®	Vedaprofen	UNSAFE/LETHAL	BURN WHOLE CARCASS
Rimadyl Aqueous®	Carprofen	UNKNOWN	BURN WHOLE CARCASS

Meloxicam is the **only known safe** veterinary NSAID for scavenging birds.

TRADING AS	ACTIVE INGREDIENT/USE	IMPACT ON VULTURES	ACTION REQUIRED
Meloxicam® Metacam® Mobic®	Meloxicam	SAFE	The only known safe NSAID have the active ingredient Meloxicam



POISONS ARE DEADLY



THE VALUE OF VULTURES ON THE FARM

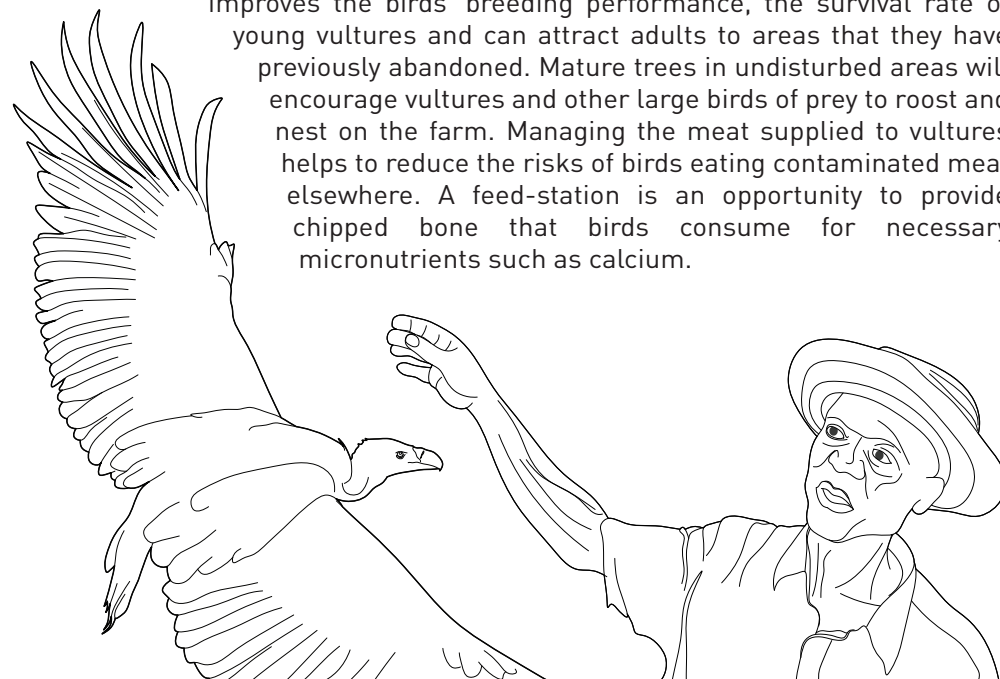
Animals – domestic livestock or wild animals – die on farms due to natural causes, disease, or through being harvested for personal or business reasons. Flying across Namibian landscapes, as they join or leave a feed, vultures are often the first and sometimes the only indication to a farmer or conservation officer that an animal has died. Vultures can clear carcasses and offal from the land remarkably quickly. Highly acidic digestive juices allow them to safely eat meat from rotting or diseased carcasses. The speed at which vultures can reduce a carcass down to just skeletal remains limits the breeding of blowflies and other insects that can spread disease. There is often nothing left to attract scavenging mammal species and water and soil is not contaminated by rotting remains.

A well-utilized vulture feed station (also known as a vulture restaurant) assists the conservation of this important population of veld cleaners provides the farm or abattoir with an efficient, practical, cost-effective and hygienic carcass disposal method.

Besides the ecosystem value, these iconic birds whether flying, perched or feeding add an exciting experience for game viewers and photographers visiting a farm, hunting operation, or conservation area.

FARMERS CAN ASSIST VULTURES

This invaluable and cost-effective cleaning service provided by vultures is encouraged by a well-managed vulture feed station (vulture restaurant)) that supplies safe carcasses and offal. Sufficient, safe and regular food, in turn improves the birds' breeding performance, the survival rate of young vultures and can attract adults to areas that they have previously abandoned. Mature trees in undisturbed areas will encourage vultures and other large birds of prey to roost and nest on the farm. Managing the meat supplied to vultures helps to reduce the risks of birds eating contaminated meat elsewhere. A feed-station is an opportunity to provide chipped bone that birds consume for necessary micronutrients such as calcium.



THE CONSERVATION STATUS OF VULTURES

Six of Namibia's seven vulture species are listed as endangered to nationally extinct. Namibia has a “Red List” of threatened and endangered bird species. The Red List uses the criteria of the International Union for the Conservation of Nature (IUCN) to flag species requiring special conservation attention. These criteria include the known population size of a species, the known population declines, the alteration of habitat critical to a species, the known restricted distribution of a species as well as statistical modeling of populations over time with and without the removal of known threats.

IUCN GLOBAL SPECIES RED LIST and NAMIBIA NATIONAL SPECIES RED LIST:

Nationally Extinct - no individual observed and no breeding recorded nationally
Nationally Extinct: Egyptian and Cape Vultures

Critically Endangered - a species with 50% chance of going extinct within 10 years
Nationally Critically Endangered: White-headed, White-backed and Hooded Vultures
Globally Critically Endangered: White-headed, White-backed and Hooded Vultures

Endangered - a species with at least 20% chance of going extinct within 20 years
Nationally Endangered: Lappet-faced Vultures
Globally Critically Endangered: Lappet-faced, Egyptian and Cape Vultures

Vulnerable - a species with at least a 10% chance of becoming extinct within 100 years

Near Threatened - a species that is likely to be classified as vulnerable in a near future

Least Concern - a species which has no known direct threats

Data deficient - a species where the criteria are no known

VULTURE SPECIES ARE IN TROUBLE ACROSS THE WORLD

Vulture species are not just endangered in Namibia and their conservation management is part of a wider, global effort. Namibia's national legislation conforms to the 1992 international Convention for Biological Diversity. Our National Biodiversity Strategy and Action Plan (2013-2022) is a guide for the safe future of our vultures both here and in the bordering countries that they visit on their travels. A Multi-Species Action Plan has been developed for all vulture species.

Namibia legislation that provides protection for people and animals:

- Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947
- Animal Protection Act 7 of 1962 (Animal Protection and Welfare Bill 2019)
- Nature Conservation Ordinance 4 of 1975
- Prevention of Undesirable Residue in Meat Act 21 of 1991
- Medicines and Related Substances Control Act 13 of 2003
- Environmental Management Act 7 of 2007
- Animal Health Act 1 of 2011
- Nature Conservation Amendment Act 3 of 2017

To remain true to the constitution, Namibia must balance the needs of people today by safeguarding biodiversity and the natural environment for future generations.

MOST LIKELY VISITORS TO A VULTURE FEED STATION

Tawny Eagle *Aquila rapax*

Have a hooded menacing stance and are often the first to find and feed on a carcass while vultures stand and watch.

Marabou Stork *Leptoptilos crumeniferus*

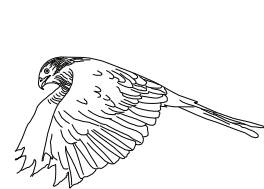
May come alone or in groups.

Black and Yellow-billed Kites *Milvus spp*

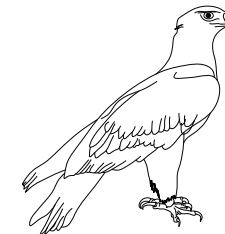
Mostly seen in the summer season when migrant birds are visiting Namibia.

Other small and medium-size bird species will visit a feeding site to pick at bone marrow, feed on spilled rumen content or on maggots and flies. These birds include francolins, spurfowl, shrikes, flycatchers, hornbills, chats, drongos, starlings and crows.

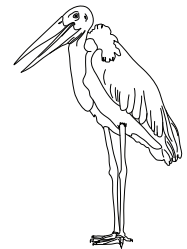
Mammals that have been recorded at unfenced feed stations include jackal species, mongoose species, warthog, chacma baboon, honey badger, brown hyena and porcupine.



Milvus Kite



Tawny Eagle



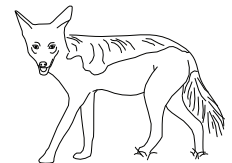
Marabou Stork



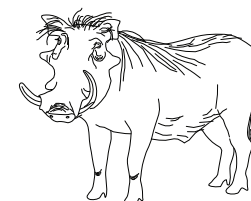
Honey Badger



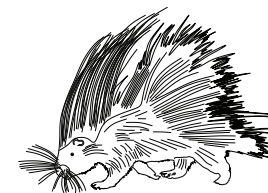
Mongoose



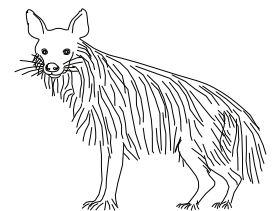
Jackal



Warthog



Porcupine



Brown Hyena

MOST LIKELY VISITORS TO A VULTURE FEED STATION

The different species that will visit a feed station, and the ages of individuals, will depend on the time of year as well as the geographic location.

White-backed Vulture (WBV) *Gyps africanus* CRITICALLY ENDANGERED

The most common vulture species in Namibia's savanna and woodlands. Juveniles are dark colored while adults become progressively whiter with age. Critically endangered because of the misuse and abuse of poison on livestock farms and because poachers contaminate meat and water with poison

Lappet-faced Vulture (LPV) *Torgos tracheliotos* ENDANGERED

The most common species in Namib Desert and its surroundings. They readily wait to the end of a feed and effortlessly consume tendons and skin. LPVs are both primary and secondary victims of the indiscriminate use of poison.

White-headed Vulture *Trigonoceps occipitalis* ENDANGERED

Mostly seen in Namibia's north-east. This endangered and rare species prefers woodlands. They are highly susceptible to poisoning by farmers and poachers.

Cape Vulture *Gyps coprotheres* CRITICALLY ENDANGERED/LOCALLY EXTINCT

Historically exterminated through poison used by farmers. There are occasional sightings of mostly young Cape Vultures visiting Namibia on their juvenile travels.

Hooded Vultures *Necrosyrtes monachus* ENDANGERED

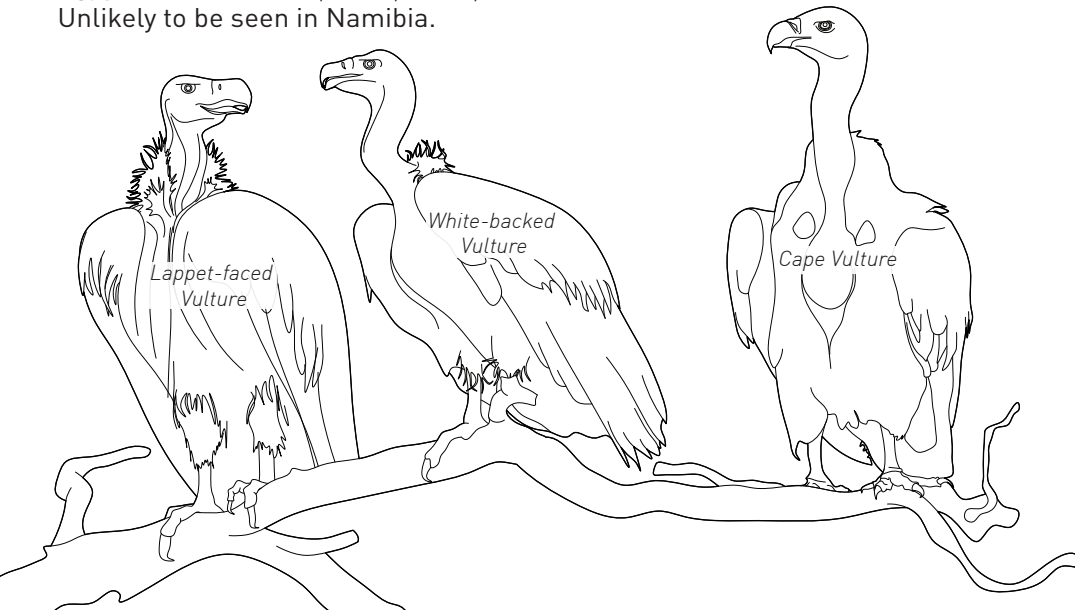
Rarely seen at vulture feeds. They are more common in north-east Namibia.

Palm-nut Vulture *Gypohierax angolensis* ENDANGERED

Unlikely to be seen in Namibia and is not an obligate scavenger.

Egyptian Vulture *Neophron percnopterus* ENDANGERED

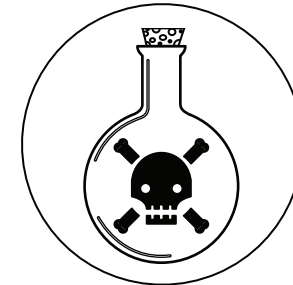
Unlikely to be seen in Namibia.



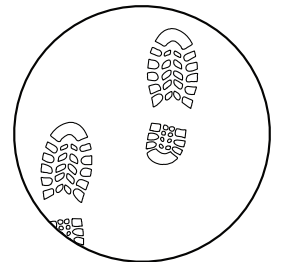
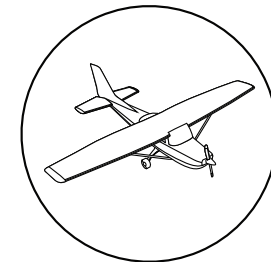
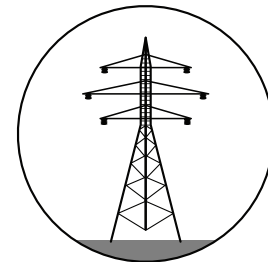
HIGH RISK THREATS TO VULTURES

The illegal and off-label use of poisons and pesticides by livestock farmers targeting carnivores is the main reason for the massive decline in population numbers of large scavenger birds of prey, specifically vultures. Any poison used to contaminate meat with the intention of killing a mammal predator, such as a jackal, will inevitably kill birds. Vultures are often the first to locate and consume a bait and they become primary victims of the poison. If another animal consumes the bait and dies, vultures may feed on the poisoned carcass and die as a secondary victim of poisoning. Vulture populations have been decimated as both primary and secondary victims of poison used on bait to indiscriminately kill predators. This nonselective method of farming killed many non-target animals.

With awareness fewer farmers now deliberately contaminate a carcass to poison carnivores. Poachers present a more recent problem. They will deliberately contaminate a carcass with a poison, either to kill circling vultures and prevent discovery of their illegal activities by a conservation officer or farmer, or to collect parts of the vulture carcasses to sell for traditional and belief purposes. Poachers who use poison to contaminate a large carcass, such as that of a poached elephant, can kill many hundreds of birds in a single (criminal) event.



Another danger to vultures, and other birds, is the expanding network of overhead power lines. Injury and fatal electrocution due to power cables, poles and pylons can be a major threat to vultures in some areas. The positioning of wind turbines must take bird movements into consideration as turbine blades can cause fatalities. Disturbance at nest sites during the breeding season, especially from low-flying aircraft, may cause frightened adult vultures to temporarily leave their nests, resulting in unguarded nestlings falling prey to predators.



DEVELOP A VULTURE FEEDING SITE

A flat or slightly sloped de-bushed area of 50 x 50 meters allows a clear view of carcasses from above and an unobstructed runway for vultures to take to the air after feeding. The birds will use any trees in and around the area before and after feeding for perching and resting in the shade. Provide limited vehicle access to the site.

Keep the site away from:

- River-beds and shallow underground water to prevent water contamination
- Roads and passing pedestrian traffic
- Power-lines and power utilities that can injure by collision and electrocution
- Wind-farms with turbines known to cause injury and fatalities
- High fences that will injure birds during landing and take-off
- Aircraft landing strips

Even a well placed site may take birds a few feed attempts to accept.

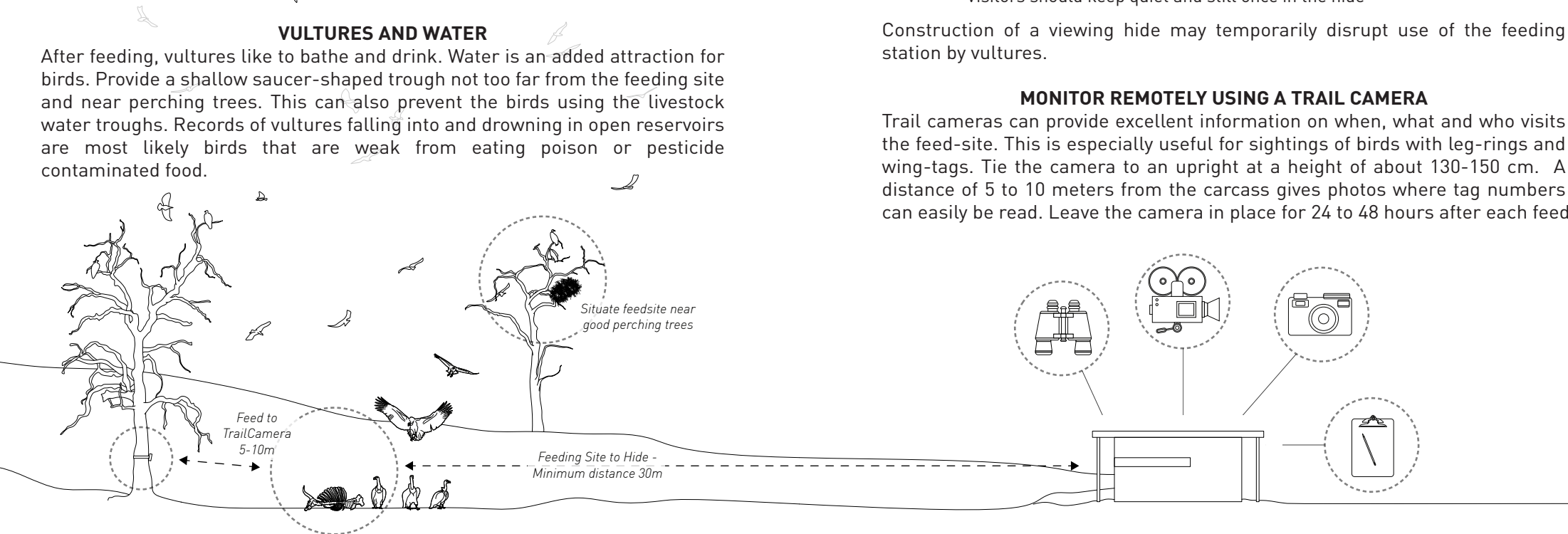
ONLY USE SAFE MEAT AND OFFAL

Provide contaminant free food and chipped bone fragments of 2-3 cm in length. Vultures use the bone chips as an important source of essential minerals especially calcium. To help the birds gain access to a whole carcass, the skin can be slit open along the abdomen and the inside of the legs.

Any contaminated carcass must be burnt.

VULTURES AND WATER

After feeding, vultures like to bathe and drink. Water is an added attraction for birds. Provide a shallow saucer-shaped trough not too far from the feeding site and near perching trees. This can also prevent the birds using the livestock water troughs. Records of vultures falling into and drowning in open reservoirs are most likely birds that are weak from eating poison or pesticide contaminated food.



KEEPING THE FEEDING SITE CLEAN

Keep the grass short and remove skeletal remains. Old carcasses, skins and bones can become infected with botulism, especially during the rainy season. Remove plastic ear tags and any litter such as glass, rope and twine from the feeding site.

ALERT THE NEIGHBORS

Discuss vultures and the value of safe food and feed-stations with neighbors and local communities. Discuss predator issues and local poison-free solutions to problems with livestock predation. To effect mitigation measures, report people who continue to use poison and pesticides to kill predators.

DEVELOP A VIEWING HIDE

Viewing vultures is fascinating and provides an incredible photographic opportunity. Viewing hides also lend opportunities to gather information on birds of prey for conservation studies.

- The hide can be as close as 30 meters from the carcass
- Position the hide north of the feed-site to reduce solar glare
- Access to the hide should not disturb the birds
- Entrance walkway should conceal the observers' approach to the hide
- Vehicle parking must be far from the hide and feeding site location
- Visitors should keep quiet and still once in the hide

Construction of a viewing hide may temporarily disrupt use of the feeding station by vultures.

MONITOR REMOTELY USING A TRAIL CAMERA

Trail cameras can provide excellent information on when, what and who visits the feed-site. This is especially useful for sightings of birds with leg-rings and wing-tags. Tie the camera to an upright at a height of about 130-150 cm. A distance of 5 to 10 meters from the carcass gives photos where tag numbers can easily be read. Leave the camera in place for 24 to 48 hours after each feed.