

# Vulture Restaurants – Conflict in the midst of Plenty

S.E. Piper

## ABSTRACT

At least 225 formal Vulture Restaurants have been established in southern Africa, some specifically to provide food for vultures but most as a means of disposing of unwanted meat from livestock farms, cattle feedlots and abattoirs. These vulture restaurants are a continuing and important source of food for, in the main, Cape Griffons *Gyps coprotheres* and Bearded Vultures *Gypaetus barbatus* and to a lesser extent four other vulture species. However, they impact negatively and directly in four ways: vultures collide with fences placed too closely around the restaurants, vultures drown in bird-unfriendly reservoirs close to the restaurants and vultures die from eating carcasses containing poisons (e.g. barbiturates used to euthanasia livestock and domestic animals). When offal and other waste products are dumped at a vulture restaurant in plastic bags these may cause problems for the vultures. Vulture restaurants impact indirectly on vultures as well. If a vulture restaurant is located too close to a power-line then vultures may die when they collide with the line or are electrocuted on it. They may also cause considerable conflict with the power-supply utility when they cause faulting on high voltage lines in the vicinity of restaurants. This faulting happens through two mechanisms, namely pollution of insulators and long streams of conductive excreta that cause short circuits. Vulture restaurants cause conflict in four more ways. The presence of a vulture restaurant serves as an attractant to many other scavengers and predators and some of these may be unwelcome, e.g. Brown Hyena, Black-backed Jackal, feral domestic dogs, baboons, Bushpigs etc. If unfenced, they are a source of bones that domestic livestock will eat, often causing animal husbandry problems. Livestock farmers may put out carcasses for the vultures that they regard as 'unfit for human consumption' but their labourers may not agree with this assessment and then go and consume the meat put out for the vultures. Lastly, tourists, especially photographers, visiting vulture restaurants may react negatively to the sight, close-up, of colour-marked vultures (naturally, this may be viewed as a problem associated with ringing!). These conflicts have been quantified for southern Africa.

## INTRODUCTION

Uncommon before the mid-1980s, vulture restaurants have since been viewed as an important tool in the conservation of vultures, especially in southern Africa (Butchart 1988). However, no conservation tool is perfect nor without its drawbacks. As part of a survey of vulture restaurants in southern Africa the likely sources of conflict were identified from a pilot survey and incorporated into the main survey. These are listed below.

*Fences.* A fence around a vulture restaurant can cause injury if a vulture flies into it while trying to take off; vultures have been recorded injured on fences (Benson and Dobbs 1984).

*Unwanted species.* A vulture restaurant is a source of animal protein in fairly large parcels, often placed with some regularity and so it is not surprising that it should attract a variety of other non-vulturine scavengers. Mammal species recorded during the pilot survey were feral/domestic dogs, Black-backed Jackal, Brown Hyena, mongoose spp., Porcupine, Chacma Baboon, Warthog and Bushpig. In addition flies and their associated maggots were noted.

*Osteophagy.* Among livestock, cattle are prone to eating and ingesting bone fragments, often with serious consequences (M. Neethling, pers. com.)

*Theft of meat.* Most of the countries of southern Africa have human populations that are protein starved, see red meat as a culturally important item in their diets and are also prepared to eat flesh that does not conform to hygiene standards prevalent in the western world. Consequently, if there are concentrations of poor people in the vicinity of a vulture restaurant they may be sorely tempted to steal meat from carcasses placed there. If the vulture restaurant is administered by a commercial livestock farmer, a stock-yard or an abattoir then the vulture restaurant may be an integral part of the meat production system. In that case the operators may be loth to give dead stock to their labourers in the fear that the labourers will induce further deaths so as to generate more meat for themselves.

*Power-lines.* Vultures die on power-lines in three ways: collision, direct electrocution and indirect electrocution via excreta-streamers (Ledger & Annegarn 1981). Because some vulture restaurant operators locate their restaurants directly below or close to power-lines there is the potential for interaction.

*Reservoirs.* A number of hypotheses have been put forward to explain the drowning of vultures in reservoirs (Anderson 2000), thus this is expected to be an issue.

*Poisons.* Certainly regarded as one of the most serious problems facing vultures in southern Africa (Mundy 2000).

*Other human interactions.* Vulture restaurants have long attracted tourists, not all of whom have positively disposed to scavengers, feeding vultures or the sight of free-flying birds with rings, patagial tags etc.

## METHODS

A questionnaire was devised and sent out to all known operators of vulture restaurants in southern Africa. A large number of questions were asked concerning the location, operation and effectiveness of the restaurants. In addition, specific questions were asked concerning potential sources of conflict and these are presented below (the detailed questions are in the appendix).

### 1. *Fences*

Is the restaurant fenced, what is the nature of the fencing and does it pose a threat to the vultures?

### 2. *Unwanted species*

Do the following mammals come to vulture restaurants and are they a problem: feral/domestic dogs, Black-backed Jackal, Brown Hyena, mongoose species, Porcupine, Chacma Baboon, Warthogs, Bushpigs, and fly spp.? Do domestic livestock indulge in osteophagy?

### 3. *Theft of meat*

Do humans steal meat from carcasses? Is there any antagonism on the part of local people toward vultures because vultures receive meat that has been rated 'unfit for human consumption'?

### 4. *Power-lines*

Are there any power-lines within 10 km of the vulture restaurant, if so, what is their design and are they a hazard?

### 5. *Reservoirs*

Is there a reservoir near the vulture restaurant, is it a hazard to vultures and is fouling the water therein a problem?

### 6. *Poisons*

Has a poisoned carcass ever been placed, inadvertently, at the restaurant and have poisoned vultures ever been found in the locality of the restaurant? Are other forms of contamination, such as plastic bags, ever dumped at the restaurant?

### 7. *Other human interactions*

Are there any negative interactions on the part of tourists and other visitors to the restaurant, e.g. colour-ringed birds?

## RESULTS

In general, the response to direct enquiries from my assistants (the 'telephone jockeys!') was excellent and nearly all respondents were willing to provide the information requested. However, occasionally there were linguistic difficulties. In most cases landowners and vulture restaurant operators showed no resistance to being interviewed or to allowing the field-workers access to their vulture restaurants to undertake field inspections. Unfortunately, a number of respondents were slow to return questionnaires/data-sheets that had been sent to them for final checking.

From the approximately 225 vulture restaurant documentation sheets all evidence of vulture related conflicts have been extracted and these are presented below.

### 1. Fences

Only two (i.e. 1.3%) vulture restaurant operators reported problems with fences; in one case a vulture flew into a fence where it was caught and broke its wing. A number of vulture restaurants have been fenced in order to exclude mammalian scavengers, especially Black-backed Jackals; also to prevent access by domestic livestock. In one case the car parking lot and walkway to the hide was fenced to prevent tourists from interfering with the vultures!

### 2. Unwanted species

**Feral/domestic dogs:** Viewed as a problem by 25 (i.e. 14.2%) of the vulture restaurant operators, some of whom saw dogs as a serious problem because they eat the carcasses put out for the vultures, are unsightly and a nuisance. Some shoot feral/domestic dogs whenever they see them and even put them out for the vultures at the restaurant. Some viewed an unfenced vulture restaurant as an attractant for dogs that they claim then prey upon game or livestock.

**Black-backed Jackal.** Where they occur they are not seen as a problem by many, some even regard them in a positive light because they crush bones. However, others (9, i.e. 5%) regard them as a great enemy, especially small stock farmer who are often paranoid. They also drag bones and small pieces of flesh away into the veldt and some livestock farmers see this as a health hazard. They are also disliked because they compete directly with the vultures.

**Brown Hyena.** Where they occur they are not seen as a problem by many and in one case were seen as a positive benefit because they helped to crush bones! However, where they did not occur, but could occur, they were viewed with some apprehension; this may be because vultures restaurant operators sometimes confuse Brown and Spotted Hyenas.

**Mongoose spp.** Nowhere a problem.

**Porcupine.** Only one (i.e. 0.6%) crop farmer complained that they were a problem because they destroyed young maize plants.

**Chacma Baboon.** Occasionally visit vulture restaurants where most operators do not consider them a problem, but one (i.e. 0.6%) sugar-cane farmer did not want them on his property because they cause minor crop losses, especially with growing shoots (M. Neethling, pers. comm.).

**Warthog.** Nowhere a problem.

**Bushpig.** Only one respondent (i.e. 0.6%) complained about Bushpigs because they "chased away the vultures and carried off the carcass!"

**Fly spp.** Nowhere a problem.

**Osteophagy** Regarded as a problem by one cattle rancher. However, most livestock farmers pre-empt this problem by fencing the vulture restaurant to exclude their livestock.

### 3. Theft of meat

Theft of meat is a problem for 33 (i.e. 21%) vulture restaurant operators. Some have even had to close down their operations because of this factor, e.g. De Wildt (G.H. Verdoorn, pers. comm.). The number of people coming to a

restaurant has varied between 1 and 13; they often come with cane-knives (i.e. machetes) to dismember the carcasses and plastic bags to carry the meat away. However, there are cases where this area of conflict has been brought under control. Neighbouring commercial farmers often see the presence of a vulture restaurant as a positive thing because they can dump their dead livestock there; they feel that if they give dead livestock to their labourers then their labourers will kill more animals. For some commercial farmers the problem is so severe that their labourers even dig up carcasses that had been buried for days. Certainly some farm labourers feel aggrieved that meat that they once received now goes to the vultures. As yet, there is no evidence that labourers have poisoned or tried to kill vultures.

#### *4. Power-lines*

Negative impacts of power lines on vultures have been reported by 33 (i.e. 21%) vulture restaurant operators. In some cases the South African electricity utility, Eskom, has responded to these reports but in others they have not. Some operators have a neutral attitude to power-lines, even seeing the presence of power-lines on which vultures can roost as a positive factor. Losses of vultures on power-lines may be incidental to the operation of a vulture restaurant. However, more serious is the situation where vulture restaurants are deliberately placed close to a power-line in the mistaken belief that the line is a good place for them to perch!

#### *5. Reservoirs*

While 7 (i.e. 4.5%) vulture restaurant operators reported that reservoirs posed a problem for vultures, it transpired that most of the deaths were not of vulture species, generally owls and small raptors. On many farms adequate mitigation measures have been put in place.

#### *6. Poisons*

Poisons are a real concern for many farmers and restaurant operators, some of whom noted poisoning incidents and even reported these to the Endangered Wildlife Trust, Raptor Conservation Group or Poison Working Group (G.H. Verdoorn, pers. comm.). A total of 26 (i.e. 17.5%) of respondents reported problems with poisons. In some cases the poison incidents may be unconnected to the vulture restaurant. However, vultures have been poisoned because the carcass was euthanased using barbiturates or the carcass was fitted with a poison collar. Some vulture restaurant operators have reported a greater awareness in the farming community around them to the dangers of poison; in one case an operator detected the use of monocrotophos to kill game birds and doves and put a stop to this before any vultures were poisoned. Contamination of vulture restaurants by plastic bags, glass shards and other debris has also been observed, especially where it is connected to an abattoir.

#### *7. Other human interactions*

Not all tourists find the sight of vultures and other scavengers gorging themselves on carcasses, offal and other waste products fascinating! No conflict over the presence of ringed birds was recorded.

## DISCUSSION

Most of the anticipated sources of conflict did not materialise or were of no consequence. The following factors were not reported at all: Brown Hyena, mongoose species, Warthog, flies and their associated larvae, and human interactions.

The factors which were of only minor concern were fences, Chacma Baboon, Bushpig, Porcupine, osteophagy and reservoirs.

Of moderate concern was Black-backed Jackal and it is likely that is as much dependent on public attitudes towards this small carnivore as on the operation of the vulture restaurant. In situations where there is a negative disposition towards this animal it is recommended that the vulture restaurant be surrounded by a jackal-proof fence and that the entrance be secured by an adequate gate that is kept closed at all times. It has been suggested that if an unfenced vulture restaurant is continually provisioned then a population of non-territorial jackals could build up in its vicinity (R. Harrison-Whyte, pers. comm.). At the De Beers vulture restaurant on Dronfield Farm a fence has been installed to prevent this from happening (A. Anthony, pers. comm.). Naturally, vulture restaurants associated with livestock farming are more likely to regard jackals and other small carnivores as a potential threat.

The serious problems are theft of meat, power-lines and poisons. The issues surrounding theft of meat are difficult because they are related, ultimately, to the racial and class structure of society in southern Africa. For the poor, almost no meat is 'unfit for human consumption' and most farm labourers feel they should have first call on any condemned carcasses and any animals dying of unknown causes. On the other hand, there is a continual flow of cases of people falling ill, and even dying, because they ate diseased (especially anthrax) or poisoned meat. Also commercial livestock farmers wish to prevent their labourers inducing deaths among livestock so that they can get the resulting carcass and their solution to this is to send all dead livestock to a vulture restaurant.

Power-lines are an ever-present hazard for vultures and other large birds in southern Africa and it is important to ensure that operators of vulture restaurants move their restaurants away from existing power-lines and do not locate new restaurants close to power-lines. The electricity supply utility for their part should take cognisance of vulture restaurants when new lines are planned and should put in place effective mitigation devices when this is not possible.

Operators of vulture restaurants need to be ever-vigilant and ensure that no carcasses be deposited at a vulture restaurant if they have been killed using barbiturates or other such drugs, also all animals shot and killed should have any lead bullets removed.

Vulture restaurants across the sub-continent have been incorporated into the live-stock production industry as a tool for disposing of unwanted meat and should be managed in a way that minimises the negative impacts on vultures and other scavengers. This paper identifies those negative impacts and shows how they can be handled.

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S. E. Piper  
School of Botany and Zoology  
University of Natal  
Private Bag X01  
Scottsville 3209  
KwaZulu Natal  
South Africa  
E-mail: PiperS@nu.ac.za

## APPENDIX

The exact questions posed to elucidate the information described in the methods above are set out below. Each question is followed by the range of replies possible - {Free format} means the interviewees can say anything they want and it is recorded as such.

### 1. *Fences*

Fenced? {Yes/No/Unknown}; Details? {Free format}; Are fences a danger? {Yes/No/Unknown} and Comments? {Free format}.

### 2. *Unwanted species*

List of species seen using the restaurant:

Domestic/Feral dogs? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Black-backed Jackals? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Brown Hyena? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Mongoose? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Porcupine? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Baboon? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Warthog? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Bushpig? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Flies? {Yes/No/Unknown}; Are they a problem? {Free format}; Details? {Free format}.

Does livestock eat/chew bones? {Yes/No/Unknown}; Details? {Free format}.

### 3. *Theft of meat*

Distance to human habitation? {Free format}.

Did/Do humans steal carcasses? Details? {Yes/No/Unknown}; Details of carcass theft: {Free format}.

Any antagonism to vultures from employees/neighbours? {Yes/No/Unknown}; Details of antagonism: {Free format}.

### 4. *Power-lines*

Power-lines within 10 km: Are lines on wooden poles? {Yes/No/Unknown}; (and/or) are lines on steel poles? {Yes/No/Unknown}; Is there a distribution (11-132kV) network? {Yes/No/Unknown}; (and/or) is there a transmission (132-765kV) network? {Yes/No/Unknown}; Comments on power lines

(including voltages if known): {Free format}.

Are power lines a danger? {Yes/No/Unknown}; Comments? {Free format}.

#### 5. *Reservoirs*

Are reservoirs a danger? {Yes/No/Unknown}; Comments? {Free format}.

Is there water for drinking and bathing? {Free format}.

Do vultures cause a problem fouling water? {Free format}; Details? {Free format}.

#### 6. *Poisons*

Are plastic bags/glass a problem at the restaurant? {Yes/No/Unknown}; Details of plastic bags/glass? {Free format}.

Any poisoning at restaurant? {Yes/No/Unknown}; or in the vicinity? {Yes/No/Unknown}; Detail poisoning incidents? {Free format}.

#### 7. *Other human interactions*

Accessibility? {Closed/Tourist}.

Reaction from Tourists? {Yes/No/Unknown}; Details of reaction? {Free format}.