

“Is die donkie nóg ‘n wonderlike ding?”

Perceptions from communal farmers in Namaqualand

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Introduction

The first agricultural people of Namaqualand, the Khoekhoen, made their existence through livestock farming and later crop production on the flatter areas of the rangelands. They used domesticated animals such as donkeys to transport their belongings when they moved extensively over the rangeland to exploit seasonal differences in the availability of good forage and water resources for their livestock (Boonzaier *et al.* 1996). Before the introduction of large machinery on farms in South African, donkeys were also utilised as draught power during ploughing and to separate grains from straw after harvesting. The utility of donkeys in agriculture, their ability to deliver with little care under harsh environmental conditions and their amusing characteristics, has dubbed them in a folk song as ‘a wonderful thing’.

The mechanisation of transport and farming implements resulted in donkeys being unused and becoming wild. Herds of wild donkeys were formed and the population increased rapidly even in the harsh environment of Namaqualand. This because donkeys have the capacity to cope with dehydration (Izraely *et al.* 1994), survive on drought-prone and eroded landscapes, graze short vegetation and their non-selective feeding habit (Aganga and Tsopito 1998). Wild donkey population has increased to an extent that recommendations to reduce numbers were reported as early as the mid 1940’s (GUSA 1947). Presently, the Leliefontein communal area still has the highest density of donkeys than the other communal areas in Namaqualand (May 1997).

Recent studies (Vetter 1996, Samuels *et al.* 2008) highlighted some of the problems wild donkeys cause in the communal area. Donkeys were reported to damage infrastructure, crops, food gardens, uproot plants and even injure small stock. This study is an attempt to investigate farmers’ knowledge on the population size and behaviour of wild donkeys and how they perceive the donkey population should be managed.

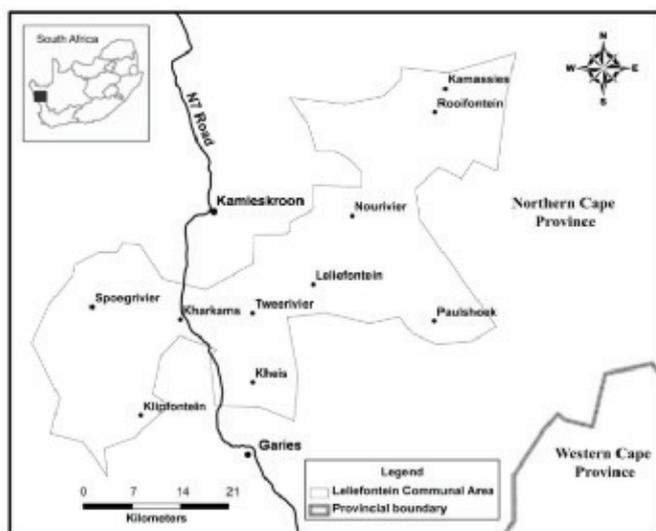
Study area

The Leliefontein communal area is located in Namaqualand in the Northern Cape Province (Figure. 1) and is approximately 192 000 ha in size. The communal area is divided into ten village commons but the boundaries are undefined and unfenced. The communal area is fenced-in by private farms which are exclusively white-owned. The topography varies from 200 m near the coast to 1 400 m above sea level in the uplands. Gneiss inselbergs and steep mountains characterize the upland areas but the terrain flattens out towards the east near Bushmanland. Temperatures could exceed 40°C during summer and drop below freezing point during winter. This winter-rainfall desert region has a mean annual precipitation that varies from 90 mm to 380 mm (South African Weather Service Unpublished data).

The area is located within the Succulent Karoo biome, a biodiversity hotspot of global significance. This biome contains 4 750 plant species of which 35 % are endemic (Cowling and Hilton-Taylor 1994).

Title: "Is die donkie nóg 'n wonderlike ding?" A question in Afrikaans meaning "Is the donkey still such a wonderful thing?"

Figure 1: The location of the Leliefontein communal area in the Northern Cape Province.



Namaqualand, one of four distinct regions in the Succulent Karoo, contains more than 75% of the biome's plant species (Cowling and Pierce 1999). Vegetation in the communal area comprises of grasslands in the east and a suite of shrublands dominated by succulents in the uplands and near the coast. Fynbos and Renosterveld vegetation also occur in the uplands.

The low household income per month ranks the people of Leliefontein amongst the poorest communities in South Africa (Hoffman *et al.* 2000). This indicate that people cannot afford mechanized transport and croppers still rely on donkeys as oppose to the expensive machinery used on private farms.

Methods

We conducted semi-structured interviews with 15 randomly selected communal farmers from three of the 10 villages. We gathered their perceptions on the population size, feeding preferences and the problems associated with wild donkeys. We also collected farmer's perceptions as the best and acceptable measures for controlling donkey numbers. Results obtained from respondent's observation of donkey's food preferences and recommendations to control donkey numbers were ranked in terms of the

perceived preferences. The respondents' estimation of food intake by donkeys and cattle was compared by means of a Student t-test.

Results

All respondents acknowledge the significance of donkeys for transport and draught power. However, their perceptions on the population and herd sizes vary. They perceive the population of wild donkeys within the commons to vary from 50 to 3 500 in total. Herd sizes observed by farmers are estimated between four to 80 individuals per group. Results from interviews show that the average estimate of food intake of donkeys is 10.3 times that of small stock whereas the food intake of cattle is estimated at 10.8 times the amount of small stock. Respondents' estimation of food intake by donkeys and cattle do not differ ($p > 0.05$). However, all respondents indicated that donkeys have a greater impact on rangeland than cattle. Farmers' perception on donkey food preferences is ranked in Table 1. Farmers listed various management options to control the wild donkey population (Table 2) but most farmers recommend culling as the best option to reduce the donkey numbers on the commons.

Table 1: Communal farmers' observations of donkeys' food preferences

Food preference	No. of observations*
No food preference	10
Larger palatable shrubs	8
Dwarf palatable shrubs	7
Palatable grasses	6
Ephemerals	4
Dwarf unpalatable shrubs	3
Succulents	2

*Farmers have listed more than one food preference

Table 2: Management recommendations of farmers to reduce donkey numbers

Recommendation	Count*
Culling wild donkeys	10
Limit and control the number of tame donkeys within the Community	5
Enforce registration of donkey at municipality	4
Sterilize tame donkeys	3
Keep one breeding stallion in the community	3

*Farmers have listed more than one management option

Discussion

The wild donkey population in the Leliefontein communal area has been a problem for several decades and the continual attempts in the past to reduce numerous have not decreased the population size. In 1965, 3786 donkeys were reported on the commons (Samuels, undated) and the current estimation of the number of wild donkeys on the commons is between 2000 and 3000 individuals. This excludes the nearly 1000 registered tame donkeys used by land users (May 1997). According to the average estimation that one donkey is equivalent to approximately 10 small stock units (SSU) indicates that the wild donkey population is the same as the livestock population for the entire communal area. The livestock population varies between 20 000 and 30 000 SSU depending on environmental conditions.

Apart from the documented destructions caused by donkeys, farmers also perceive that donkeys compete directly with small stock and cattle for the limited food. Donkeys in temperate climates graze on average 56% of the day (Lamoot et al. 2005) and 84% of the day in Ghana when the quality of forage is poor (Canacoo and Avornyo 1998). Donkeys could also spend long periods (22 min/h) grazing at night (Lamoot et al. 2005). Since livestock on the commons

is kept in a corral at night, indicates that donkeys could have greater impact on the environment and the livelihoods of the people since forage resources are limited.

Donkeys are perceived to be non-selective feeders thus competing with small stock for the same forage species. Donkeys and small stock are perceived to prefer shrubs such as *Didelta spinosa*, *Rhus incisa*, *Zygophyllum* species. and *Eriocephalus* species. and several palatable grasses. Farmers also indicated that donkeys forage on plants considered to be unpalatable or poisonous to livestock e.g. *Galenia africana*, which suggest they have the ability to significantly transform vegetation composition. Donkeys have the ability to graze very low down to the ground (Aganga and Tsopito 1998) which can be destructive to most shrubs in arid areas. This is because grazing low down could reduce the amount of seed that these species are able to produce.

The majority of farmers are in favour of eradicating wild donkeys. Their attitude is contrary to what was found by Hendricks (2003) in the Richtersveld National Park where pastoralists refrain from harming donkeys because of their biblical significance and the belief that killing a wild donkey will lead to prolonged drought. Culling operations by Cango Wildlife™ game ranchers in collaboration with the community have commenced on an *ad hoc* bases since 2008. These operations too seems to affect the numbers of feral donkey population insignificantly. Catching wild donkeys is not an easy task but when sold to Cango Wildlife™ it provide valuable additional income to these poor communities.

The root of the donkey problem seems to lie with management of animals in the community itself. About 1000 donkeys are only registered annually by approximately 100 donkey owners in the communal area. Donkey owners are only allowed to keep up to eight donkeys as a means of transport and drought power provided that he pays an annual grazing fee to the Kamiesberg municipality. However, seldom if any donkey owner pays their grazing fees and some keep up to 15 donkeys. There is very little control over donkeys and many owners do not acknowl-

edge ownership resulting in the donkeys having free access on the commons. Farmers mentioned that owners only claim ownership when donkeys (including wild donkeys) are to be sold to speculators. The attitudes of 'owners' have resulted in many culling operations being discontinued since the people that assembled the donkeys will often not get the money for their hard work. These conflicts amongst land users for ownership, the little competition from other herbivores and the absence of predators and disease may cause donkey numbers to rise. If donkeys are not managed properly within the community the problem with wild donkeys will persist long into the future.

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