Predation on bat-eared foxes *Otocyon megalotis* by Cape hunting dogs *Lycaon pictus*

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The predatory habits of the Cape hunting dog *Lycaon pictus* have been well documented, and have been found to include almost exclusively mammalian herbivores (Childes 1988). The prey species chosen varies from area to area according to availability, with wildebeest *Connochaetes taurinus* and Thompson's gazelle, *Gazella thomsonii* being recorded as preferred prey in East Africa (Malcolm & Van Lawick 1975), whereas impala *Aepyceros melampus*, kudu *Tragelaphus strepsiceros* and duiker *Sylvicapra grimmia* are predominantly selected in southern Africa (Fuller & Kat 1990). This paper documents a case of a pack of Cape hunting dogs preying specifically on bat-eared foxes.

Key words: predation, Cape hunting dog, *Lycaon pictus*, Hwange National Park, bat-eared fox, *Otocyon megalotis*.

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Observations

The observations were made over a ten-week period from December 1994 until February 1995 in the southeastern corner of Hwange National Park, Zimbabwe, adjacent to communal land to the south and forestry land to the east. Originally the pack of Cape hunting dogs comprised a single adult male, a female and six five-month old pups. In early December, the female was found to be in poor condition and she died 10-14 days later. Prior to her illness the pack had been observed successfully hunting impala 12 times, steenbok twice, and duiker twice. From then until the end of the study they were observed on 13 kills, 12 of which were bat-eared foxes, the other being a steenbok *Raphicerus campestris*. Just prior to the death of the female, the male was noted killing the first bat-eared fox.

During the study period, the pack confined itself to an area of approximately 10 km², compared to its normal range of 550 km². Only the adult male was observed to hunt. However, it is possible that in the latter period the pups tried to assist him as three of the six broke back legs during this period.

Out of five chases after bat-eared foxes, the male was successful in three. The other kills were observed after capture had been effected. The hunting area was predominantly grassland on a calcrete soil, sparsely covered with clumped vegetation and dotted with *Combretum imberbe* and *Hyphaene* palms. Due to drought conditions the area was devoid of grasses. An abundance of impala were present although these were never observed to be hunted. The impala, for their part, appeared aware of the *status quo* and showed no alarm at the presence of the dogs

in contrast to their normal reaction to Cape hunting dogs. The dogs would appear in the open area in the cooler part of the day and would either stand or lie, apparently listening for bat-eared foxes for up to two hours before moving approximately 500 m to repeat the sit-and-wait procedure.

Once the bat-eared foxes were located, the male would progress in their direction and stalk as close as possible before initiating a chase. On the five observed chases, the bat-eared foxes had a flight distance of about 40 metres. The chase was always short and on all the observed occasions the prey attempted to escape by going down a burrow. On one occasion the male followed the fox into the burrow, completely disappearing, and emerged with the prey item. The second one was captured at the burrow entrance.

As the study progressed the condition of the dogs deteriorated markedly, indicating that they were not hunting successfully or possibly were under the influence of disease from domestic dogs in nearby communal lands. For the first three weeks after the death of the female, the male allowed the pups to feed first as is normal for the species (Malcolm & Marten 1981). After this, the male actively sought possession of the whole kill. As a result of this early altruistic behaviour his poor condition was exacerbated.

During the first three observations, the dogs rolled on the freshly killed bat-eared foxes before eating commenced. On one occasion the dogs were noted to roll in the bat-eared fox without eating it and left immediately to attempt to catch another. They returned shortly afterwards having apparently been unsuccessful and proceeded to eat the first kill. This rolling behaviour was not noted after the second week of observation.

Discussion

These observations show an adaptive response by Cape hunting dogs to unusual circumstances and further illustrate the flexibility of canid behaviour (MacDonald 1979; Malcolm & Van Lawick 1975). The only

other example of Cape hunting dogs eating a bat-eared fox is a single observation of two males doing so in the Kalahari (Mills & Haagner 1987). Whether this observation was as a result of either scavenging or capture was at the time unknown. It is known that experienced Cape hunting dogs are able to bring down fairly large prey on its own (Reich 1981). It seemed that when the predation on the bat-eared fox commenced the male was either too weak or lacking experience to hunt faster or larger prey on its own. No attempt was made by the dogs to capture the abundant impala which from previous records were their observed preferred prey, and the latter were seemingly aware of the conditions of the dogs and ignored their presence. The altruistic behaviour of the species whereby the pups feed first (Malcolm & Marten 1981) may well have exacerbated the situation and did eventually lead to the unusual situation where the male did feed himself to the complete exclusion of the pups, however, by this time he was in a very weakened condition.

The change in behaviour from a 'widely foraging' to a 'sit-and-wait' strategy was at least successful for him, particularly if he was able to form another pack.

The rolling behaviour observed has not been recorded in other studies of Cape hunting dogs, but Mills (*pers. comm.*) recorded a spotted hyaena rolling in a freshly killed bat-eared fox. It appears to be a characteristic in carnivores to novel odours, although its function is not clear. Whether it could have functioned to mask the scent of the dogs in order to reduce the flight distance for the next intended bat-eared fox hunt is unclear. The cessation of this behaviour after several foxes had been killed is interesting, though not understood.

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