

Title: The opportunistic hunting behaviour of black-backed jackals in Namibia

Author: Miha Krofel

Postal Address: Animal Ecology Research Group, Dept. of Biology, University of Ljubljana, Večna pot 111, SI-1001 Ljubljana, Slovenia

E-mail Address: miha.krofel@bf.uni-lj.si

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Introduction

Opportunistic hunting behaviour is characterized by the absence of search phase in a prey acquisition sequence (Kok & Nel, 2004). It is especially common among the members of the Canidae (Macdonald & Siller-Zubiri, 2004). Black-backed jackal (*Canis mesomelas* Schreber) is a common middle-sized canid occurring in two disjunct populations, one in East Africa and the other in southern Africa (Walton & Joly, 2003). It is a generalist feeder, whose diet comprises small-to-medium-sized mammals, reptiles, birds, eggs, invertebrates, plants, carrion and anthropogenic items (Kaunda & Skinner, 2003; Loveridge & Nel, 2004). Active hunting seems to be more important in the regions with rare or absent specialist predators (Kaunda & Skinner, 2003). Predation on ungulates by jackals is usually limited to fawns (Lawick-Goodall & Lawick-Goodall, 1970; Schaller, 1972; Macdonald, Loveridge & Atkinson, 2004). Present note describes the observation of a successful cooperative hunt of black-backed jackals on adult springbok (*Antidorcas marsupialis* [Zimmermann]).

Material and methods

The observation took place on 18th of December 2005 at the artificial waterhole in the south-central part of the Etosha National Park in Namibia. Etosha occupies an area of 22 270 km² and is centred at 19° S and 16° E. There is a wet season from January to May and a mean annual rainfall of 351 mm (Trinkel & Kastberger, 2005). South-central part of the park is dominated by grassy plains and woodlands with *Colophospermum mopane* in tree or scrub form. Diverse ungulate and carnivore communities are present in the area.

Results and discussion

At approximately 10:00 a.m. several herds of springbok and gemsbok (*Oryx gazella* [Linnaeus]), as well as individual greater kudu (*Tragelaphus strepsiceros* [Pallas]) and Burchell's zebras (*Equus burchelli* [Gray]) were present in the vicinity of an artificial waterhole. While drinking at the edge of the waterhole, one springbok fell into the water. Since the bank on that side was too steep for the animal to be able to get out, after a few unsuccessful attempts it turned around and started to swim to the opposite side. After approximately half a minute of swimming, it reached the opposite bank. Meanwhile, one black-backed jackal approached the waterhole, probably attracted by the commotion. When springbok tried to get out of the water, the jackal started attacking it, biting it in the face and the neck (Fig. 1). Springbok fell back into the water several times, but in the end it managed to get out, continuously being attacked by the jackal in the process. Soon thereafter more black-backed jackals approached the waterhole and took part in the hunt (Fig. 2). In the end there were six jackals altogether. They were attacking the springbok by biting it from behind, in the abdomen and in the muzzle. Springbok managed to escape for some meters several times, but jackals caught it again every time. They brought it to the ground two times, but it managed to get up again. The third time one of the jackals seized it by the throat, and held it down, while others opened the abdominal cavity. The whole hunt lasted approximately 5 minutes. Other springboks which were present near by did not run away, but merely observed the hunt.

When the jackals started eating, a quite obvious hierarchy was established. One jackal, whose low rank was also evident from the submissive gait, was very soon ousted away from the prey and not allowed to approach it until others finished eating. There were also quite a lot of hostile interactions between other jackals while eating. All of the jackals were adults. The killed springbok was a younger individual, yet already of an adult size. It did not seem to be in markedly poor condition nor had any injury. According to this observation alone it is not possible to reliably conclude whether the jackals involved in the cooperative hunting belonged to one or more family groups. The black-backed jackals are known to form groups containing up to 8 individuals (Walton & Joly, 2003) and that interactions between non-pair members of the group are often agonistic (Ferguson, 1978). Therefore it is not unlikely that all observed jackals were members of the same group.

Present note confirms that black-backed jackals can successfully hunt upon large ungulate mammals. Although these are rare occasions, observations of the killing of larger mammals had been reported before for the black-backed (Kruuk, 1972; Sleicher, 1973; Loveridge & Nel, 2004; Macdonald *et al.*, 2004) and golden jackals (*Canis aureus* Linnaeus) (Stanford, 1989; Lawick-Goodall & Lawick-Goodall, 1970; P. Moehlman, pers. comm.). It seems that observed killing took place due to unusual circumstances, when springbok fell into the water, which increased its vulnerability. This was noticed by the jackal, which seized the opportunity. Crucial for the successful hunt in this case was probably also the cooperation of several individuals during the hunt, as one jackal alone most likely would not be able to make a kill. Opportunism was also indicated by the time of the day at which hunting took place, as black-backed jackals are normally most active during crepuscular periods and least during sunshine

(Ferguson, Galpin & de Wet, 1988). The observed hunting behaviour can be viewed as another indicator of the general opportunistic nature of this species and canids in general.

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Figures



Fig 1 Black-backed jackal (*Canis mesomelas*) attacking a springbok (*Antidorcas marsupialis*) at the edge of an artificial waterhole in Etosha National Park, Namibia (photo: M. Krofel)



Fig 2 Cooperative hunting of black-backed jackals (*Canis mesomelas*) in Etosha National Park, Namibia (photo: M. Krofel)