Short communication

Baboon carnivory and raptor interspecific competition in the Namib Desert

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(Received 10 November 1994, accepted 13 February 1995)

This paper reports an unusual observation of predation by chacma baboons Papio cynocephalus ursinus on a klipspringer antelope calf Oreotragus oreotragus and subsequent aggression between the baboons and black kites Milvus migrans over the calf remains. The observation took place in the Namib Desert, Namibia, during the austral summer; no other cases of vertebrate carnivory or interspecific competition were recorded over a year of study of the baboons. This interaction should be considered active competition rather than passive scavenging, since the behaviour of the kites led to the direct displacement of the baboons from their feeding site and from several scraps of flesh.

Keywords: baboons; black kites; klipspringer; predation; competition

Introduction

Competitive interactions between birds and primates are rarely reported. Here we describe interspecific feeding competition between chacma baboons (Papio cynocephalus ursinus) and black kites (Milvus migrans) over the remains of a recently killed klipspringer (Oreotragus oreotragus) on the Namib Desert edge, Namibia.

Baboon diets comprise a wide range of plant materials and invertebrates (Whiten et al., 1991). Infrequently, these foods are supplemented with vertebrate prey, including herpetofauna, birds and mammals (e.g. Hausfater, 1976; Hamilton & Busse, 1982). Capture and consumption of such prey is normally a male activity, and meat intake is correlated with dominance rank (Hamilton & Busse, 1982). However, no reports exist

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of interspecific competition for vertebrate prey. Nor are there accounts of vertebrate predation by baboons in desert areas or in unimale groups.

These observations were made in Tsaobis Leopard Park (22°23' S, 15°45' W), a 45,000 ha reserve in the Pro-Namib region of central Namibia. The Park is characterised by 'transition zone' vegetation (Geiss, 1971) with minimal precipitation (85 mm mean annual rainfall). The landscape is rocky and barren, offering little food or shelter. The event described involved a semi-habituated resident group of 21 baboons (one male, eight females, ten juveniles and two infants; under the observation of J.G.D.), and took place during the 1991 wet season (mid-February), when new plant shoots were emerging and a large number of black kites were travelling through the area (in association with a passing rain front).

At 0900h, the group was engaged in foraging, picking Commiphora leaves and turning over rocks in search of invertebrates. The baboons were spread out in a band 30–40 m across, with the adult male at the rear (separating the group from the observer 20 m away). As the male followed the group into a dry gully, he detected a klipspringer calf (1–2 months of age, 3–5 kg weight) hidden underneath a boulder. He immediately grabbed the antelope, which responded with alarm whistles. Emitting wahoo barks (sensu Byrne, 1982), the male ran with the calf down into the gully and up the other side where he stopped in the shade of a small Commiphora tree. This flight was likely to have been precipitated by the presence of J.G.D., who received several threatening gestures following prey discovery.

Once under the tree, the remaining baboons ran over and encircled the male at about 5 m, barking and screaming. Meanwhile, holding the calf to the ground, the male began tearing fur and skin off its rump with his teeth. After several minutes, the male turned the klipspringer over and bit deeply into the thoracic cavity. Instantly the vocalizations of the calf diminished, although its calling continued until its neck went limp shortly afterwards. The male fed for about 30 min, during which time eight black kites assembled overhead. The kites swooped at the male, who monitored their presence from under his tree. The absence of evasive action is unsurprising, given that black kites do not pose a predatory threat to baboons (kite body mass 0·6–1 kg: Steyn, 1982). Meanwhile, a pair of adult klipspringer, the presumed parents, appeared at the top of the gully. The pair vocalised several times and watched the baboons for 10 min before crossing the gully in the direction of where the calf had been discovered. In the following 20 min, the male cleaned out the entire body cavity and subsequently began tearing off and consuming the thigh muscles. The male then left the calf to sit 5 m away. However, within 30 s the male returned and fed for another 10 min before finally abandoning the carcass.

A sexually swollen young female then approached and took the carcass. As she did so, two kites screeched and swooped down to within about 2 m of the female. While she screamed and fled with the carcass, the rest of the baboons called and ran around excitedly. The kites continued swooping down, apparently indiscriminately, while the male kept jumping high into the air grabbing for the birds as they passed by. During this mêlée, the female fled with the carcass a further 70 m to the end of the gully, with the rest of the group (and finally the male) following about 3 min later. The kites did not give chase, but stayed and fed on the discarded remains of the klipspringer. Shortly thereafter, the group moved to a nearby hill, where the female fed on the carcass. No other individuals were seen to eat from the carcass, nor was any further competition observed.

Vertebrate consumption is rare at this site. During the rest of the year, in which four groups were studied, no other cases were observed. Nor was there any active searching for vertebrate prey (see Hausfater, 1976) or co-ordinated hunting (see Strum, 1981). In another Namib Desert baboon population, in the Kuiseb River canyon, no records exist of young antelope predation (Hamilton et al., 1978; Hamilton, 1986). Hausfater (1976) found that vertebrate predation peaked when rainfall was minimal, and argued
that a variety of factors were responsible, namely (i) increasing prey availability, (ii) declining cover for these prey and (iii) a reduction in the availability of usual non-vertebrate baboon foods. Given the low rainfall regime at Tsaobis (and the Kuiseb), and the consequent shortage of both cover and typical baboon foods, relatively high rates of vertebrate predation might thus have been predicted. Its rarity suggests that suitable prey may be scarce in this arid environment. Alternatively, the absence of meat-eating in unimale groups elsewhere in southern Africa (Whiten et al., 1987) suggests that the reduced foraging radius of small groups may reduce the opportunities for the detection and flushing of such prey. Note, however, that the other Tsaobis study groups were multimale with up to 55 members. Whatever the reason, these observations clearly suggest that vertebrate predation at this site was opportunistic.

Interspecific aggression is of even greater rarity than predation. What is particularly notable about this observation is that the aggression of the kites led to the direct displacement of the baboons from their feeding site and hence the loss of fragments of their captured food. Given the value which baboons place on meat resources (e.g. Hamilton & Busse, 1982), this is remarkable. Although interspecific competition does occur between baboons and ungulates (Strum & Western, 1982) it is usually of the scramble type. Contest competition is far less common, although one report of baboons competing with gemsbok for access to waterholes in the Kuiseb does exist (Hamilton, 1986). Yet the combination of two groups of generalist feeders, a prized food source and an arid environment appear to have provided the necessary conditions for this unusual event to occur.

The authors are grateful to Peter Bruce, Robin Dunbar, Sanjida O’Connell and Paola Reason for assistance, to the Namibian Ministry of Wildlife, Conservation and Tourism and August Juchli for research clearance in Namibia and at Tsaobis Leopard Park, respectively, and to the Natural Environment Research Council, the Central Research Fund of the University of London, the Boise Fund and the Namibia Nature Foundation for funding.

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