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PREDATION

PREDATION ON HELMETED GUINEA FOWL BY GREY-FOOTED CHACMA BABOON IN MASHATU GAME RESERVE, NORTH EAST BOTSWANA

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Baboons are Old World monkeys (subfamily Cercopithecinae) endemic to Africa and Arabia. Five species are currently recognized (Newman et al. 2004) and all are omnivores that readily, but sporadically, supplement their vegetarian diet with animal meat. The Grey-footed Baboon (*Papio ursinus griseipes*) is found in Zambia, Botswana, Zimbabwe, Mozambique, and northern South Africa, and is particularly common in the Mashatu Game Reserve on the Tuli Block in northeast Botswana. During numerous visits to the reserve in various months (2008-2017), three sightings of Grey-footed Baboon eating Guinea Fowl (*Numida melegaris*) were observed. Two involved direct ambush and capture of a bird by a baboon, whilst in the other instance prey was co-opted after being killed by another predator. These observations are detailed below and discussed in relation to other records of predation by baboons.

Observation 1

At 10h09 on 6 July 2008 a Tawny Eagle (*Aquila rapax*) was observed to swoop and kill an adult guinea fowl on the open plains northwest of Fig Tree Crossing on the Majale River (approximately 22°07'52"S, 29°08'09"E). It then perched on a dead mopane trunk to eat the fowl, but after removing the head the body dropped to the ground. Whilst the eagle continued to eat the neck and head of the guinea fowl an adult male baboon rushed from adjacent bush and grabbed the body.

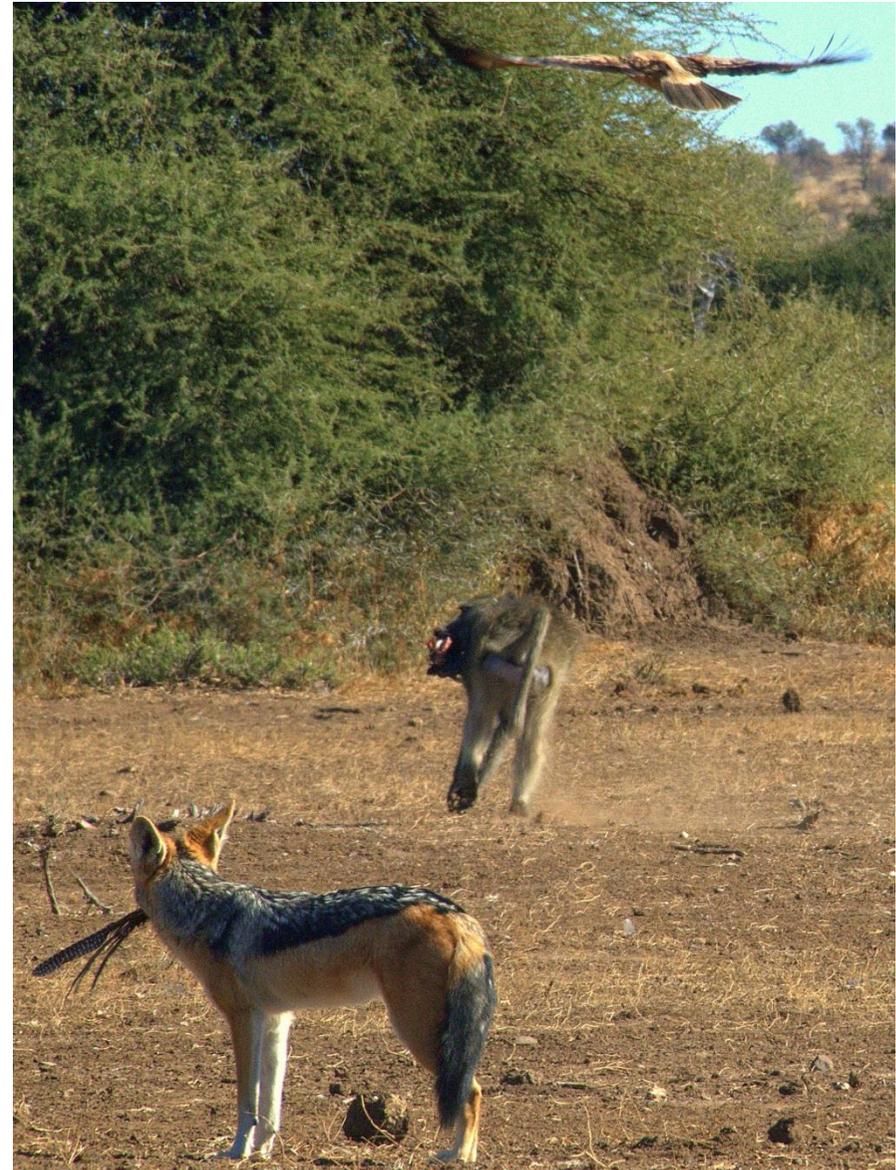


Figure 1 – A Tawny Eagle pursues an adult male Chacma Baboon that has co-opted the body of a guinea fowl it had killed. In the foreground a Black-backed Jackal holds the discarded wing of the guinea fowl thrown by the fleeing baboon.

With a subordinate male in attendance, the baboon began to pluck the carcass, but then in turn it was disturbed by a Black-backed Jackal (*Canis mesomelas*) that rushed in to steal the body. This stimulated the baboon to respond by running away, during which it pulled a wing off the carcass and tossed it towards the jackal which immediately grabbed the discarded wing. As it held the carcass in its mouth, the baboon ran into thick bush, pursued by the eagle which made a belated and unsuccessful attempt to recover its prey (Fig. 1). In a final twist the jackal, now accompanied by two additional jackals (possibly mate and young), was attacked by the subordinate baboon, presumably to gain the discarded wing. It is unknown whether the carcass was subsequently shared with other baboons.

Observation 2

At 16h56 on 9 May 2017 a young adult male baboon was observed eating a freshly killed guinea fowl in grazed grass and scattered acacia bush adjacent to Fig Tree Crossing (22°08'35"S, 29°08'35"E). It was not seen to capture the bird, although this is likely as no other potential predators were observed in the region. The baboon moved behind a bush where it was not visible to other members of the troop. The breast region of the fowl was opened first and the internal organs eaten. The hind limbs were then removed and the thigh meat eaten next (Fig. 2), followed by the meat on the inner surfaces of the wings. The carcass was not shared with other baboons.

Observation 3

At 09h45, 28 September 2017 an adult male baboon was observed closely watching guinea fowl coming from one of the few remaining pools of water in the dry bed of the Majale River, approximately 100m closer to the river than the location of the previous observation. Unseen by the guinea fowl moving away from the water point, the baboon moved behind bushes beside the direction the fowl were moving. At this moment another adult male baboon 50m away grabbed a guinea fowl as it passed by thick bush.

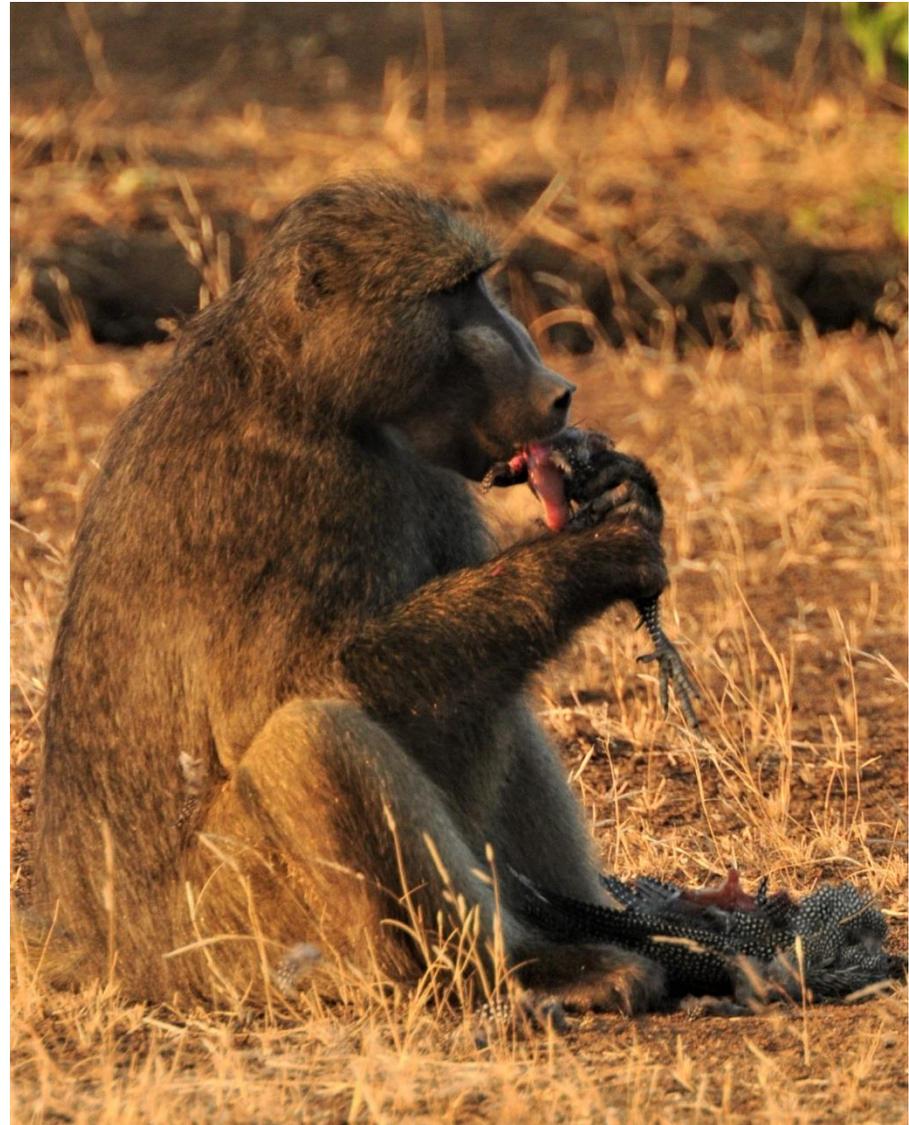


Figure 2 – An adult male Chacma Baboon eating a guinea fowl



Figure 3 – An adult male Chacma Baboon eating the internal organs of a guinea fowl that it captured.

This capture was greeted with excitement from other baboons in the region, and the captor ran into sparse bush as if to evade other approaching baboons. After less than 20 seconds, however, the baboon walked into an open area, sat down with the dead guinea fowl and started to feed. Mouthfuls of down feathers were pulled from the breast, which was then bitten open, the wings flexed dorsally backwards and the contents of the body cavity quickly eaten in a few mouthfuls (Fig. 3). During this time two other baboon (adult and subadult males) approached and sat close to the captor, but made no attempt to steal or beg for food, although the larger of the two ‘subordinates’ collected a few fallen wing feathers in its hand (Fig 4). Over the next 5 minutes the large baboon ate further parts of the carcass, eating the meat from the thighs and then the humeral meat after ripping the wings off. This sequence was similar to that

observed in the 2nd Observation. During this time the smallest subordinate baboon chased off two approaching juvenile baboons. On completion of its meal the baboon walked away, leaving the stripped carcass to the subordinates.



Figure 4 – Two smaller ‘subordinate’ male Chacma Baboon keep watch whilst the captor of the guinea fowl eats the thigh muscle. Note the handful of guinea fowl feathers in the left hand of the larger of the ‘subordinate’ males.

Discussion

Several additional examples of baboons eating guinea fowl have been recorded at in the Mashatu GR at Pete’s Pond. This artificial water point has streamed live video footage to ‘Pondies’ for over a decade, and during this time has accumulated numerous wildlife observations. Among these are two other examples of baboon feeding on guinea fowl (Anon. 2006, 2017). The first occurred 13 November 2006 and involves footage (6.24 mins) of a large baboon plucking and eating a guinea fowl on the open banks surrounding the pond. No other baboon approaches the feeding baboon during this

time, although after it departs a Vervet Monkey (*Chlorocebus pygerythrus*) investigates but does not eat or co-opt any of the discarded carcass. The other example occurred in the early morning (08h59) on 27 May 2017, and again involved a large baboon plucking and eating a guinea fowl at the pond. Guinea fowl can be heard alarm calling in the background and one bird also walks near the eating baboon. The footage stops before the baboon finishes eating and no other details are available. In both of these examples it is not certain that the baboon caught and killed the bird. However, this is likely as no other baboon or other predator are visible.

These additional examples conform in important aspects to the observations detailed above, and suggest a common strategy is occurring in Mashatu GR. In four of the five cases of meat-eating it is likely that prey was originally captured by the baboon as no other predators were observed in the region. All five examples involved meat-eating by solitary males, in which the prey was not subsequently shared with other baboons. Only in a case where the prey was co-opted from the original predator (a Tawny Eagle), did prey capture occur away from water bodies where guinea fowl became a clumped resource as they congregated to drink. The latter (Fig 5) is a common feature in the arid savannah habitat, when numerous seasonal water bodies become dry before the onset of the summer rains.

There are few reviews of meat-eating by baboons. Harding (1974, 1975) studied Olive Baboon (*Papio anubis*) in Kenya and noted that animal meat made up only 2% of male baboon diet, and that when prey was captured it was usually simply eaten alive (>90%, Harding 1975). These baboon hunts, as in other examples (e.g. Strum 1983) usually involved solitary males, and the prey was rarely shared with other baboons although it may be co-opted by more dominant males.



Figure 5 – A clumped resource – guinea fowl drinking at a water hole during the dry season (September) in the Mashatu Game Reserve.

In contrast, vertebrate predation in chimpanzees occurs with male groups that hunt in packs and who share the prey amongst themselves, and sometimes later with females (Mitani & Watts 2001). Hill & Dunbar (2002) analysed climatic determinants of diet and foraging behaviour in all baboons, including four populations of *P. ursinus* from southern Africa, and showed that no significant proportion of feeding or moving time was devoted to obtaining animal meat. Predation on animal meat by baboons was therefore considered opportunistic. Harding (1974) noted that olive baboons ate meat only when either they or another baboon of the same troop had recently killed the prey animal. His study troop ignored other fresh carcasses, even one captured and abandoned by a large Verreaux's Eagle *Aquila verreauxii*. They were seen often within easy reach of guinea fowl, but these were always ignored. However,

another adjacent baboon troop caught and ate guinea fowl on several occasions.

Harding's (1974, 1975) observations accord with the recent Mashatu observations presented here, and illustrate that meat-eating in baboon is opportunistic and involves a shift in hunting strategy that seems to be stimulated by the seasonal shortage of normal food items. It is also directed at the seasonal clumped availability of another nutritional resource, guinea fowl. Meat-eating and hunting in baboon is gender biased, and an ongoing feature of primate evolution.

References

Anon. 2006. Baboon eats A Helmeted Guinea Fowl at Pete's Pond 11/13/2006.

<https://www.youtube.com/watch?v=J67gHZ709M>

Anon. 2017. Pete's Pond: Zoomie caught a Baboon eating one of the Guinea Fowl 05/27/2017.

<https://www.youtube.com/watch?v=7Mlo9rDJdwg>

Harding RSO 1974. The Predatory Baboon. Expedition Magazine. Penn Museum, January 1974 Web. 06 Oct 2017.

<http://www.penn.museum/sites/expedition/?p=2457>

Harding RSO 1975. Meat-eating and hunting in Baboons. In: R.H. Tuttle (ed.). *Sociology and Psychology of Primates*, pp 245-257. Mouton, The Hague.

Hill RA & Dunbar RIM 2002. Climatic determinants of diet and foraging behaviour in baboons. *Evolutionary Ecology* 16: 579-593.

Mitani JC & Watts DP 2001. Why do Chimpanzees hunt and share meat? *Animal Behavior*, 61(5): 915-924.

Newman TK, Jolly CJ, Rogers J 2004. Mitochondrial phylogeny and systematics of baboons (*Papio*). *American Journal of Physical Anthropology* 124(1): 17-27.

Stanford CB 2001. *The Hunting Apes: Meat eating and the Origins of Human Behavior*. Princeton University Press, Princeton.

Strum SC 1983. Baboon cues for eating meat. *Journal of Human Evolution*, 12: 327-336.