

Patterns of predation and meat-eating by chacma baboons in an Afromontane environment

Andrew T.L. Allan^{a,b,*}, Laura R. LaBarge^{b,c}, Caroline Howlett^{a,b}, Annie L. Bailey^b, Benjamin Jones^b, Zachary Mason^b, Thomas Pinfield^b, Felix Schröder^b, Alex Whitaker^b, Amy F. White^b, Henry Wilkinson^b and Russell A. Hill^{a,b,d}

^aDepartment of Anthropology, Durham University, Dawson Building, South Road, Durham DH1 3LE, UK

^bPrimate and Predator Project, Lajuma Research Centre, PO Box 522, Louis Trichardt 0920, South Africa

^cMax Planck Institute of Animal Behavior, Büchlestraße 5, Konstanz, DE, 78467 Germany

^dDepartment of Zoology, University of Venda, Private Bag X5050, Thohoyandou 0950, South Africa

*Corresponding author; e-mail: andrewtlallan@hotmail.com

ORCID iD: Allan: 0000-0003-3495-8826

Supplementary material

Text S1. Discussion of habituation and human-shield factors

The size of the habituated group (80–100 individuals) likely made them very conspicuous, potentially minimising their chances of encountering certain prey species. However, it is unclear whether these factors influence the likelihood of encountering vertebrate prey. It is also unclear whether their habituated status influences predatory behaviour and rates in any way (Hobaiter et al. 2017; LaBarge et al. 2020). The study group were known to predate during days when they were not followed, some of which were confirmed by project researchers encountering them by chance (n = 4, observations not

utilised in this study as details were lacking), whilst several other researchers in the area made similar observations. Unhabituated groups were also confirmed to predate on antelope (2 observations made by AA) and were observed aggressively chasing vervets (likely predation attempts). As the habituated group appeared to encounter at least six other baboon groups across their range, if other groups share similar predatory behaviours, then baboons may have a stronger effect on the ecosystems of the Soutpansberg Mountains than is currently appreciated.

At our field site several groups of vervets and guinea fowl had been habituated for direct observational research, whilst species living near camps often exhibit tolerance of humans, including bushbuck, warthog, vervets, and samangos. Although the habituated baboons are unlikely to be deterred by humans in these instances, the presence or proximity of humans has likely shielded these habituated animals from predations by unhabituated baboon groups and other natural predators, creating unnatural patterns of behaviour (Muhly et al. 2011; Wang et al. 2017). Habituation-related phenomena at our field site could therefore influence the true patterns of predatory behaviours exhibited by various species, including unhabituated baboon groups. Future work should consider how habituation and direct observations of various species within an ecosystem can disrupt these natural processes.

Remote sensing technologies could help researchers more accurately identify how often baboon groups make kills without human interference (Brown et al. 2013). For example, identification of different behavioural states like hunting or contested sharing via acceleration sensors and audio loggers. Though, at present, it may be challenging to use these technologies to identify the prey species taken and are still inferior to direct observation for understanding the social consequences of predation for within-group dynamics. In the future, pairing movement and biologging data with genomic analysis of diet composition from

faeces may help us better understand which species, and in which proportions, this population is predated upon.

References

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