

# An attack by a warthog, *Phacochoerus africanus*, on a newborn Thomson's gazelle, *Gazella thomsonii*

Blair A. Roberts

Department of Ecology and Evolutionary Biology, Princeton University  
Princeton, NJ 08540, USA

Accepted 27 April, 2012

## Introduction

This note reports a previously undescribed behaviour of an attack by a warthog (*Phacochoerus africanus*) on a newborn Thomson's gazelle (*Gazella thomsonii*). Most instances of interspecific aggression in wild animals occur in the contexts of predation (Polis, Myers & Holt, 1989; Kamler et al., 2007) or competition (e.g. Moore, 1978; Berger, 1985; Loveridge & Macdonald, 2002; Schradin, 2005). However, warthogs are omnivores that are not known to prey on gazelle and only rarely include animal protein in their diets (Cumming, 1975). Also, the two species typically associate closely without overt signs of aggression and exhibit subtle differences in diet, which minimize competition for forage (Mwangi & Western, 1998). Examination of unusual interspecific interactions such as this challenges the scientific community to consider and evaluate alternative drivers for the behaviour, which may then be useful in accounting for other seemingly aberrant occurrences.

## Materials and methods

The incident occurred on 2 October 2011 at Ol Pejeta Conservancy (OPC) in Laikipia, Kenya. I observed the events from a vehicle parked between 70 and 150 m from the subjects.

## Results and discussion

At 1:12 PM, I spotted a female Thomson's gazelle in labour. She delivered a fawn at 1:43

PM. Twenty-four minutes later, while the fawn was standing unsteadily after suckling and after the mother had consumed all visible birth materials from the neonate and the birth site, an adult male warthog approached the pair. When it came within several metres of the gazelles, the mother turned to face it, leaving the fawn between her and the warthog. The warthog rushed at the fawn, hooked it with its tusk and tossed it approximately 3 m in the air. The warthog then turned to the mother, who first lowered her horns but quickly retreated. The warthog approached the fawn, which had not moved since landing on the ground. It sniffed the fawn, nudging it with its snout. It then grasped the fawn's hindquarters in its mouth (Fig. 1) and vigorously shook the neonate from side to side for several seconds before dropping it. The fawn fell to the ground and the warthog walked away. As the warthog left, the mother approached the fawn. The warthog



**Figure 1.** Warthog holding gazelle infant in its mouth before shaking it

turned towards her, but then continued to walk away. The mother licked the infant once before leaving in the opposite direction from which she had come.

At 4:32 PM, the mother returned to a distance of approximately 100 m from the fawn. At 4:53 PM, she approached and groomed the infant. The fawn stood and suckled. At 5:20 PM, the pair moved away from the birth site. Shortly thereafter, the fawn hid in a tussock of grass and the mother left.

There is no clear explanation for the attack. It is possible the warthog was attempting to eat the neonate. Warthogs are reported to include animal food in their diet on rare occasions (Cumming, 1975), and other suids, including wild boar (*Sus scrofa*) and bush pigs (*Potamochoerus porcus*), are known to kill and eat small mammals, including ungulates (Kingdon, 1979; Estes, 1991). However, the fact that the warthog did not kill or consume the fawn and its rapid loss of interest in the neonate suggest that predation of the fawn was not the purpose of the attack.

The warthog may have sought to scavenge the birth materials. Warthogs sometimes feed on carcasses at OPC (personal observation; N. Sharpe & K. Vanderwaal, personal communication) and once were observed nibbling the amniotic sac of a Grant's gazelle (*Gazella granti*; Sharpe & Vanderwaal, personal communication). Although the fawn was clean and dry by the time of the attack, the scent of birth tissues may have persisted and attracted the warthog. However, this explanation does not account for the extreme aggression towards the fawn.

Perhaps the most plausible possibility is that the incident was a displacement activity or a display of object aggression. Warthogs display by thrashing vegetation during aggressive interactions with conspecifics (Kingdon, 1979; Estes, 1991). I did not notice the warthog before its approach, but did note that there were other warthogs in the direction from which it had come. It is possible that an intraspecific

conflict prompted an aggressive display and that the gazelle fawn was simply a convenient target.

## Acknowledgements

I am grateful to Kim Vanderwaal and Nicole Sharpe for their observation notes. I thank the OPC Research Department for their support and the Kenyan government for their permission to conduct research in Kenya. This paper was made possible through the support of my advisor, Daniel Rubenstein.

## References

- Berger, J. (1985) Interspecific interactions and dominance among wild Great Basin ungulates. *J. Mamm.* 66, 571–573.
- Cumming, D.H.M. (1975) A field study of the ecology and behaviour of warthog. *Mus. Mem. Natl. Mus. Monum. Rhod.* 7, 1–179.
- Estes, R.D. (1991) *The Behavior Guide to African Mammals*. University of California Press, Berkeley, CA.
- Kamler, J.F., Davies-Mostert, H.T., Hunter, L. & Macdonald, D.W. (2007) Predation on black-backed jackals (*Canis mesomelas*) by African wild dogs (*Lycan pictus*). *Afr. J. Ecol.* 45, 667–668.
- Kingdon, J. (1979) *East African Mammals: An Atlas of Evolution in Africa*. 3B (Large Mammals). Academic Press, London.
- Loveridge, A.J. & Macdonald, D.W. (2002) Habitat ecology of two sympatric species of jackal in Zimbabwe. *J. Mamm.* 83, 599–607.
- Moore, F.R. (1978) Interspecific aggression: toward whom should a mockingbird be aggressive? *Behav. Ecol. Sociobiol.* 3, 173–176.
- Mwangi, E.M. & Western, D. (1998) Habitat selection by large herbivores in Lake Nakuru National Park, Kenya. *Biodiversity Conserv.* 7, 1–8.
- Polis, G.A., Myers, C.A. & Holt, R.D. (1989) The ecology and evolution of intraguild predation: potential competitors that eat each other. *Annu. Rev. Ecol. Syst.* 20, 297–330.
- Schradin, C. (2005) Nest-site competition in two diurnal rodents from the succulent karoo of South Africa. *J. Mamm.* 86, 757–762.