

Predation of Black rat *Rattus rattus* (Rodentia: Muridae) by the Rock lizard *Psammophilus dorsalis* (Squamata: Agamidae) from sub-urban Bangalore, Karnataka

Shashank Balakrishna

Psammophilus dorsalis is a common rock dwelling lizard having a widespread distribution throughout the Indian peninsula up to 1829 m elevation (Daniel, 2002). During field work in sub-urban Bangalore (13°3'31.58"N; 77°36'8.33"E) on 26th December 2013, the author observed a female adult *P. dorsalis* (Snout to vent length = 90mm, head width = 21mm, head height = 9mm and head length = 31mm; Figure 1A) feeding on a juvenile Black rat (*Rattus rattus*; measuring 62mm in length) while perching on a concrete ledge at a height of one and a half feet from the ground (Figure 1B). It remained unclear whether the rat had been caught alive. The ground was littered with dry *Lantana camara* leaves forming a layer measuring approximately 2.5cm. *Rattus rattus* is known to forage in areas with high leaf litter, likely because of an abundance of prey and the effective use of leaf litter as a retreat place from avian predators (Cox et al., 2000). When disturbed, the lizard sprinted for a short distance of approximately a meter, which is unlike typical behaviour of *P. dorsalis* (pers. obs.). The mobility of the lizard seemed hindered because of the large prey size. Ongoing diet studies across an urban-rural landscape carried out by S. Balakrishna (corresponding author) and M. Thaker suggests that the species is mainly myrmecophagous. Since females of this species perch at lower heights than males throughout the year irrespective of the breeding season (Radder et al., 2006), the diet of urban females also constituted of Lepidoptera larvae (25%) and Coleoptera (62.5%).

Other documentation on atypical predation in this species was reported by Sreekar et al. (2010) where an adult male was observed feeding upon another lizard *Hemidactylus treutleri* in an arid scrub forest composed of boulders. Given this observation and the record of Sreekar et al. (2010), *P. dorsalis* is likely to be an opportunistic predator. Hence, concurrent study of the availability of possible prey across spatial and temporal scales, as well as the diet of *P. dorsalis* is necessary to understand the variation in foraging ecology in this species.

Acknowledgments. I would like to thank Maria Thaker and Dheeraj Veeranagoudar for comments on an earlier draft of the manuscript and G.S Gautham for his assistance on field.



Figure 2. Map showing the sampling site where the lizard- *P. dorsalis* was observed feeding on *R. rattus*.

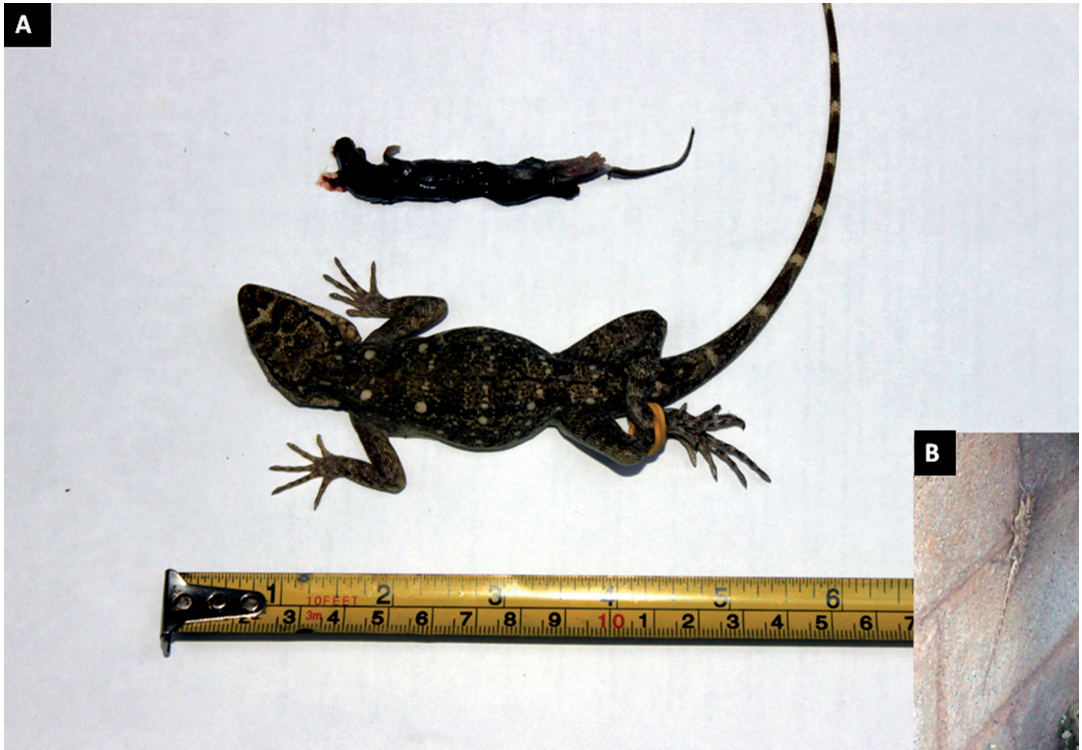


Figure 1. A- An adult female *Psammophilus dorsalis* lying beside the juvenile *Rattus rattus* it consumed; Inset **B**- The adult female feeding on the juvenile *R. rattus* on field.

References

- Cox, M.P.G., Dickman, C. R. and Cox, W.G. (2000): Use of habitat by the black rat (*Rattus rattus*) at North Head, New South Wales: an observational and experimental study. *Austral Ecology* **25**: 375-385.
- Daniel, J.C. (2002): *The book on Indian Reptiles and Amphibians*. Bombay Natural History Society and Oxford University Press, 58pp.
- Radder, R.S., Saidapur, S.K., Shanbhag, B.A. (2006): Big boys on the top: effects of body size, sex and reproductive state on perching behaviour in the tropical rock dragon, *Psammophilus dorsalis*. *Animal Biology* **3**:311-321.
- Sreekar, R., Deodhar, S., Kulkarni, Y. (2010): Predation on *Hemidactylus treutleri* (Squamata: Gekkonidae) by the peninsular rock agama *Psammophilus dorsalis* (Squamata: Agamidae) in Rishi Valley, Andhra Pradesh, India. *Herpetology Notes* **3**:033-035.