

Predation of a Carpenter Bee, Xylocopa latipes (Drury 1773), by a Peninsular Rock Agama, Psammophilus blanfordanus (Stoliczka 1871), from Odisha, India

Subhrakanta Jena^{1,2}, Rakesh Kumar Mohalik¹, Pratyush P. Mohapatra³, and Hemanta Kumar Sahu¹

¹Department of Zoology, MSCB University, Takatpur, Baripada-757003, India ²Department of Applied Microbiology, F.M. University, Nuapadhi, Balasore-756089, India (jena.subhrkanta@gmail.com) ³Reptilia Section, Zoological Survey of India, F.P.S. Building, Kolkata-700016, West Bengal, India (pratyush.m@zsi.gov.in)

In the intricate web of ecological relationships, predatorprey interactions play a vital role in shaping the dynamics of various ecosystems (Schmitz 2017). Within the rich biodiversity of India, the Peninsular Rock Agama (Psammophilus blanfordanus) has been identified as an integral member of the local fauna, thriving in the diverse habitats across the region (Corlett 2011). Carpenter Bees (Xylocopa latipes), most widely recognized for their damaging woodboring activities, play a crucial role in maintaining the balance of local ecosystems through their role as pollinators (Morato and Martins 2006).

The typical diet of the Peninsular Rock Agama (*Psammophilus blanfordanus*), a common, social, diurnal, rock-dwelling (rupicolous) agamid, consists mainly of insects, such as ants and termites along with other small arthropods (Aruna et al. 1993; Daniel 2002; Radder et al. 2005), but

these lizards are known to feed occasionally on other lizards (Aruna et al. 1993; Dutta et al. 2009; Sreekar et al. 2010).

We herein present the first photographic record of a female *P. blandfordanus* preying on a Carpenter Bee (Fig. 1). The event, which was already in progress when first observed, occurred on the cement slab of a narrow drain at 1119 h on 9 May 2022 at Maharaja Sriram Chandra Bhanja Deo University, Odisha, India (21.9299, 86.7657; elev. 91 m asl). The unexpected inclusion of a Carpenter Bee in the diet of a Peninsular Rock Agama is surprising because Carpenter Bees are large, robust insects, and the diet of these lizards usually reflects a preference for smaller, more easily captured prey.

Literature Cited

Aruna, C.H., T.B. Reddy, and M.V.S. Rao. 1993. Feeding ecology of *Psammophilus blanfordanus* (Stoliczka). *Journal of the Bombay Natural History Society* 90: 295–296.



Figure 1. A female Peninsular Rock Agama (Psammophilus blanfordanus) preying on a Carpenter Bee (Xylocopa latipes). Photographs by Subhrakanta Jena.

- Corlett, R.T. 2011. Vertebrate carnivores and predation in the Oriental (Indomalayan) Region. *Raffles Bulletin of Zoology* 59: 325–360.
- Daniel, J.C. 2002. The Book of Indian Reptiles and Amphibians. Oxford University Press, Bombay Natural History Society, Mumbai, India.
- Dutta, S.K., M.V. Nair, P.P. Mohapatra, and A.K. Mahapatra. 2009. Amphibians and Reptiles of Similipal Biosphere Reserve. Regional Plant Resource Centre, Nayapalli, Bhubaneshwar, Odisha, India. https://doi. org/10.13140/2.1.2440.0647.
- Morato, E.F. and R.P. Martins. 2006. An overview of proximate factors affecting the nesting behavior of solitary wasps and bees (Hymenoptera: Aculeata) in preexisting cavities in wood. *Neotropical Entomology* 35: 285–298. https://doi.

- org/10.1590/S1519-566X2006000300001.
- Radder, R.S., S.K. Saidapur, and B.A. Shanbhag. 2005. Population density, microhabitat use, and activity pattern of the Indian rock lizard, *Psammophilus blanfordanus* (Agamidae). *Current Science* 89: 560–566.
- Schmitz, O. 2017. Predator and prey functional traits: understanding the adaptive machinery driving predator–prey interactions. *F1000Research* 6: 1767. https://doi.org/10.12688/f1000research.11813.1.
- Sreekar, R., S. Deodhar, and Y. Kulkarni. 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: 33–35.