

Fatality of a Common Bronze-backed Treesnake, *Dendrelaphis tristis* (Daudin 1803), Due to Multiple Asian Honeybee (*Apis cerana*) Stings in Odisha, India

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The Common Bronze-backed Treesnake (*Dendrelaphis tristis*) is widely distributed across southern Asia (Uetz et al. 2021). Herein we document the fatality of a Common Bronze-backed Treesnake attributable to multiple Asian Honeybee (*Apis cerana*) stings at a locality that represents a new geographic record for the species.

At about 1300 h on 13 January 2021, during a monthly check of bee boxes at an apiary in Odisha, India (20.175319°N, 85.781239°E), beekeepers noticed an unusually pungent smell emanating from one of the bee boxes. When the outer cover of the box was lifted, we found the decomposing body of a Common Bronze-backed Treesnake (Fig. 1). Upon close examination of the dead snake, we concluded that multiple stings by Asian Honeybees caused the

death of the snake. We believe this is the first report of an Indian snake being killed by bees.

We have observed snakes taking refuge in bee boxes on numerous occasions, most frequently in the winter and rainy season. We suspect that the main attraction is the relatively constant temperature of 32–36 °C maintained by the bees inside the boxes. Asian Honeybees are generally tolerant of disturbances (Theisen-Jones and Bienefeld 2016) but will sting when trapped or provoked. Like other honeybees, *A. cerana* workers release alarm pheromones that integrate defensive responses that include an attack against the source of danger (Bortolotti and Costa 2014). Snakes seeking shelter in the bee boxes typically do not elicit this behavior; what led to this particular snake being attacked is unknown.



Fig. 1. A partially decomposed Common Bronze-backed Treesnake (*Dendrelaphis tristis*) that died as a result of multiple Asian Honeybee (*Apis cerana*) stings. Photographs by Aurobindo Samal.

A photographic voucher documenting this event has been submitted to the Regional Museum of Natural History, Bhubaneswar, Odisha, India (No. 7.3/2002-03/RMNH/BBSR/9954). The identity of the species was confirmed by Dr. Pratyush Mohapatra.

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Literature Cited

- Bortolotti, L. and C. Costa 2014. Chemical communication in the honey bee society, pp. 143–206. In: C. Mucignat-Caretta (ed.), *Neurobiology of Chemical Communication*. CRC Press, Boca Raton, Florida, USA.
- Theisen-Jones, H. and K. Bienefeld. 2016. The Asian Honey Bee (*Apis cerana*) is significantly in decline. *Bee World* 96: 40–44. https://doi.org/10.1080/0005772X.2019.1571211.
- Uetz, P., P. Freed, R. Aguilar, and J. Hošek (eds.). 2021. *The Reptile Database*. http://www.reptile-database.org>.