

Predation on the Indian House Gecko, *Hemidactylus flaviviridis* Rüppell, 1835, by the huntsman spider *Heteropoda venatoria* in Kolkata, India

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Geckos are known to be mainly insectivorous, and they can be preyed upon by various animals, such as birds, snakes, mammals, and larger geckos (e.g., Daniel, 2002). In addition to vertebrate predators, various invertebrates, including spiders, scorpions, centipedes, and even some insects have been reported to prey on geckos. Among them, arachnids are the most frequently known predators (Bauer, 1990). Spiders of the families Lycosidae, Nephilidae, Salticidae, and Sparassidae have been reported to prey on geckos (Diniz, 2011; de Luna et al., 2020; Nyffleter et al., 2021; Zdunek and Bandara, 2022). Here we report an observation of predation on the house gecko *Hemidactylus flaviviridis* by the huntsman spider *Heteropoda venatoria* in Kolkata, India.

Hemidactylus flaviviridis is a large gecko (maximum total length 180 mm; Das and Purkayastha, 2012; Parves and Alam, 2015) that is widely distributed in northern, central, and eastern India (Das et al., 2011). It usually occurs in association with anthropogenic structures in both rural and urban areas (Khandarkar et al., 2020). Predation by the huntsman spider *H. venatoria* on *H. flaviviridis* and the congeneric species *H. frenatus* Duméril & Bibron, 1836 has already been reported in Bangladesh (Neogi and Islam, 2017; Khandarkar et al., 2020). *Hemidactylus frenatus* has also been reported to be preyed upon by other spiders, such as the Brown Widow, *Lactodectus geometricus*, in Mexico and Sri Lanka (de Luna et al., 2020; Zdunek and Bandara, 2022). To our knowledge, this is the first report of predation by *H. venatoria* on *H. flaviviridis* in India.

On 12 December 2022 at 18:30 h on a wall inside a house near Garia Bazaar in Kolkata, India (22.4656°N, 88.3817°E; elevation 9 m), a *H. venatoria* spider was observed holding an adult *H. flaviviridis* in its pedipalps. Species identities were confirmed after examination of photographs and video by the Zoological Survey of India. The spider's chelicerae were pressed and inserted into the gecko's mid-ventral trunk region, thereby depressing the region of contact. The gecko's tail had broken off, and the animal was completely subdued (Fig. 1); aside for a few slight tremors in its hindlegs, no movement was observed (video available [here](#)). The spider remained motionless in this position for ca. 25 min and then retreated to the other side of the wall, where it could no longer be observed.

Hemidactylus flaviviridis is known to have been introduced to eastern India through human-mediated transport, and it is considered as an invasive species (Das et al., 2011). Our observation confirms *H. venatoria* as a



Figure 1. *Heteropoda venatoria* preying on *Hemidactylus flaviviridis*. Photo by Saheba Khatun.

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predator of this gecko in this region and adds information about the predators that *H. flaviviridis* may encounter in its introduced range.

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