

## Another Case of Venom Spitting in the Monocled Cobra, *Naja kaouthia* Lesson 1831, from Assam, India

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Venom-spitting ability in snakes is typical of the genera Naja and Hemachatus. Spitting of venom is thought to be a low-risk defense strategy wherein the snake does not have to come into physical contact with a predator. Typically, in the spitting species, the fang discharge orifice is much smaller than that of their non-spitting relatives, which is theorized to aid in spraying venom with greater force and accuracy (Wüster and Thorpe 1992). Historically, Naja atra, N. sputatrix, N. philippinensis, N. samarensis, and N. sumatrana have been recorded to spit venom, whereas no reliable records document spitting in N. naja and N. oxiana (Wüster and Thorpe 1992). Hitherto, N. kaouthia was considered a non-spitting species (Cox 1991). However, evidence of spit-

ting behavior was recorded recently for the first time from Hooghly District, West Bengal, India, along with mentions of similar behaviors from the Indian states of Manipur and Arunachal Pradesh (Santra and Woster 2017). Giri et al. (2021) also reported spitting behavior in *N. kaouthia* from Pokhara, Gandaki Province, in Nepal.

Herein we report another case of spitting by *N. kaouthia* from Guwahati City, Assam, India. At around 1445 h on 30 April 2022, one of the authors (CBT) rescued a female *N. kaouthia* from the campus of Magnum Industries unit-3 at Patgaon, Azara (26.087015°N, 91.613840°E). The total length of the snake was 1,584 mm and it bore a clear monocellate marking on its hood. The dorsal surface was black



Fig. 1. A Monocled Cobra (Naja kaouthia) from Guwahati, Assam, India, spitting venom. Photograph by Rupankar Bhattacharjee.

above and uniformly white below with ventral scales 13–18 and 24–27 dark in color. While photographing the snake it sprayed venom three consecutive times (Fig. 1) within a span of 15 minutes. The snake was released into the adjacent Rani Reserve Forest within 30 minutes of rescue.

## Literature Cited

Cox, M.J. 1991. The Snakes of Thailand and Their Husbandry. Krieger Publication

- Company. Malabar, Florida, USA.
- Santra, V. and W. Wüster. 2017. Naja kaouthia (MonocledCobra). Behaviors/spitting. Herpetological Review 48: 455–456.
- Wüster, W. and R.S. Thorpe.1992. Dentitional phenomena in cobras revisited: spitting and fang structure in the Asiatic species of *Naja* (Serpentes: Elapidae). *Herpetologica* 48: 424–434.
- Giri, R., R. Baral, R. Giri, K.B. Shah, and F. Tillack.2021. First records of the spitting behavior of monocled cobra (*Naja kaouthia*) from Nepal. *Russian Journal of Herpetology* 28: 122–124. https://doi.org/10.30906/1026-2296-2021-28-2-122-124.