



## A Case of Cannibalism in the Indian Spectacled Cobra (*Naja naja*) from Nagpur, Maharashtra, India

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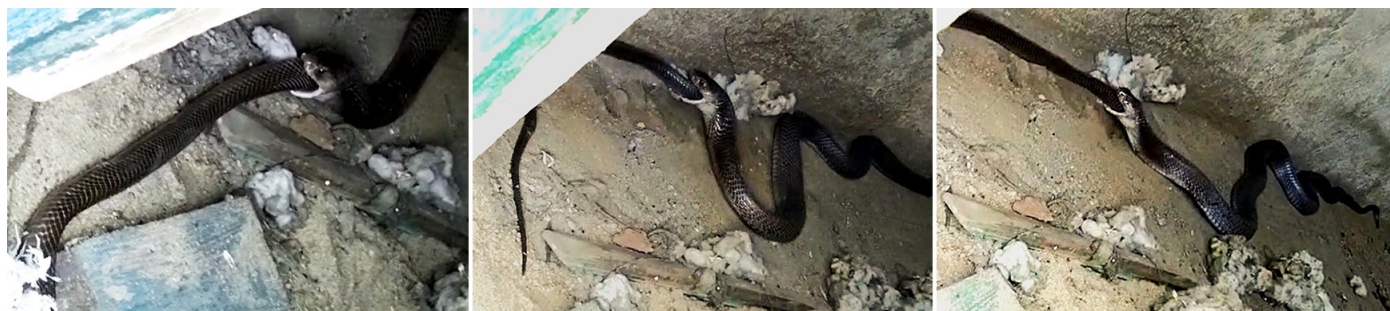
Cannibalism is a widespread behavioral trait in many species of snakes. Its occurrence in populations is assumed to be the outcome of a trade-off between the benefits of the behavior (e.g., increased energy, fewer competitors for food or mates, or possibly a lower risk of parasite infection) and its costs, which include risks of injury, decreased inclusive fitness, and risks of parasitic infections (Maritz et al. 2018). Cannibalism can affect population demography in a significant size-dependent manner, intrasexual and intersexual competitive dynamics, and moderate intraguild predation dynamics by affecting either the resource species or the intraguild prey (Maritz et al. 2018). However, it is observed mainly in captivity and rarely seen in nature (Trivedi and Thakur 2018).

In India, cannibalism in snakes has been reported and observed mainly in the King Cobra (*Ophiophagus hannah*) (e.g., Solanki and Khare 2022). Indian Spectacled Cobras (*Naja naja*) have been reported for feeding on other species of snakes, but have rarely been seen feeding on conspecifics (Whitaker and Captain 2004). The Common Catsnake (*Boiga trigonata*), Common Krait (*Bungarus caeruleus*), and Oriental Ratsnake (*Ptyas mucosa*) are some of the Indian snakes in which cannibalism has been reported (Trivedi

and Thakur 2018; Solanki and Khare 2022; Joshi and Soni 2023). Envenomation by an Indian Spectacled Cobra (*N. naja*) by another cobra has been reported recently (Solanki and Khare 2022). Herein, we present the first photographic evidence of cannibalism in an Indian Spectacled Cobra.

At 1815 h on 4 November 2022, SPW received a snake rescue call from Junewani Village, Hingna, Nagpur, Maharashtra, India (21.0535, 78.9170). Upon reaching the rescue site in a storeroom, we observed an adult Indian Spectacled Cobra (*N. naja*) feeding on a conspecific adult (Fig. 1). It had engulfed half of its prey, which was still alive. Complete ingestion took approximately 10–15 minutes. We waited five minutes to minimize the likelihood of regurgitation before rescuing and releasing the predator into a nearby wilderness area.

Cannibalism in snakes frequently is treated as a rare event and often is neglected in research (Maritz et al. 2018). Indian Spectacled Cobras are known to consume other snakes, including conspecifics. Cannibalism in this species apparently occurs frequently but is rarely seen and documented. A study of African cobras (*Naja* spp.) revealed that ophiophagy was widespread, and conspecifics were abundant in the diets



**Figure 1.** An Indian Spectacled Cobra (*Naja naja*) ingesting a conspecific in Junewani Village, Hingna, Nagpur, Maharashtra, India. Photographs by Sanjay P. Wasake.

of all six species included in that study (Maritz et al. 2018). Cannibalism might be common in Indian Spectacled Cobras as well. Solanki and Khare (2022) reported possible cannibalistic behavior but, to the best of our knowledge, the observation described herein is the first photographic evidence of cannibalism in *N. naja*.

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