

Death feigning behavior in two species of the genus *Lycodon* of Asia (Squamata: Colubridae)

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Thanatosis meaning 'putting to death' in Greek is commonly referred to as Death feigning. Death feigning is a form of defensive behavior, in which an animal becomes immobile as if dead (McFarland, 1981) which has been reported from various group of animals including mammals, birds, fishes, reptiles, amphibians and arthropods (Vogel & Han-Yuen, 2010). This behavior has long been known from some snake species

but no extensive work has been done to formally report this behavior in Asian snakes. Among Indian snakes, death feigning has been known from the following two species: *Xenochrophis piscator* (Schneider, 1799) and (*Coelognathus radiatus* Fitzinger, 1843) (Vogel & Han-Yuen, 2010).

Lycodon aulicus (Linnaeus, 1758) is one of the most common snake species found in India. Many of these snakes enter houses. We encountered death feigning on two occasions in this species: (1) In the course of a rescue operation and (2) another on a survey trip. Also we present an account of the said behavior in *Lycodon capucinus* Boie, 1827.

Lycodon aulicus is represented in Mumbai by two distinct morphs as seen in Fig. 1 & 2 of the several others depicted in the images by Ravichandran & Siliwal (2010). As the exact status of the two forms is

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Figure 1. Morph 1 of Wolf Snake *Lycodon cf. aulicus*. Photo by Zeeshan A. Mirza.



Figure 2. Morph 2 of Wolf Snake *Lycodon cf. aulicus*. Photo by Varun V. Vaze.

presently not clearly understood, we refer to them as *L. cf. aulicus*.

Case 1: One the first occasion, a female of *Lycodon cf. aulicus* (260 mm in length) was rescued from a hut in Aarey Milk Colony, Mumbai and was kept in a plastic container. The snake was later removed for photography during which it acted quite aggressively and made several attempts to bite while handling it. After about a minute, the snake completely stopped responding to the handling and was dangling from the hand. The snake was laid on the floor on which the snake turned almost half of its body exposing the ventral scales and remained in this position. Thinking the snake was dead; it was put back in the container and was left undisturbed for about 30 minutes. But on returning to examine the snake after 30 minutes, the snake's behaviour was back to normal. In the same night it fed upon a *Hemidactylus*

sp. which was offered.

Case 2 (Figures 2 & 3): On the second occasion, on 26 September, 2010 at 0019 hours, an unsexed individual of this morph (ca. 350 mm long) was seen crossing a road in Aarey Milk Colony. The snake was moving slowly and on approaching it with flash light, it curled up hiding its head. For photography, the snake was forced to uncoil. The snake stopped moving and turned upside-down exposing its ventral scales and became stiff. In spite of lifting up the snake and turning it over, the snake neither moved nor made any attempts to bite. Presuming the snake was dead it was collected for further examination. After about one hour, the snake was examined and was found to be normal and alive.

Case 3 observed by Daniel Rosenberg: On 18th May, 2009 a snake was found trapped in a conduit on Hong Kong Island. The snake was picked up for photography during which it turned its body upside down exposing its ventral scales (Figure 4). It remained in the position for fairly a minute. The snake was not disturbed for a while after which it was picked up again for photography. The snake was back to normal and behaved rather aggressively biting repeatedly. No other notes were collected.

This behavior is only exhibited by morph 2 of *L. cf. aulicus* and not by the other one in spite of extreme provocation. It would be further interesting to study if this behavior is exhibited by any other species of the genus *Lycodon* and especially after resolving the systematic status of the two morphs of the widespread *L.*



Figure 3. Death feigning by an individual of *Lycodon cf. aulicus* morph 2 from Aarey Milk Colony, Mumbai (Maharashtra, India). Photo by Varun V. Vaze.



Figure 4. Death feigning by an individual of *Lycodon capucinus* from Hong Kong Island, China. Photo by Daniel Rosenberg.

aulicus. It is also worth noting that *Lycodon capucinus* was considered a synonym of *L. aulicus* but presently is recognized as a valid species. A detailed study on death feigning behavior in snakes of Asia would be welcomed and a comparison is needed to under which conditions this behavior is exhibited.

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