

## DEATH FEIGNING BEHAVIOR IN LARGE-EYED FALSE COBRA *Pseudoxenodon macrops* (BLYTH, 1854) (SQUAMATA: COLUBRIDAE)

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Death feigning is reported in the species *Pseudoxenodon macrops* for the first time. This behavior involved rolling over on back, exposing its ventral side with its mouth half open and tongue sticking out.

**Keywords:** defensive behavior; *Pseudoxenodon macrops*; Indo-Chinese region.

### INTRODUCTION

Death feigning or “Thanatosis” is a form of defensive behavior in which an individual animal pretends to be dead when threatened or when attacked by a predator.

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Death feigning has been observed across taxa and examples are known from mammals, birds, fishes, reptiles, amphibians and arthropods (Vogel and Kam, 2010). Though a widespread phenomenon, death feigning remains poorly understood. There is little work published on this behavior in Asian snakes (Mirza et al., 2011). Only three records of death feigning in snakes from India have been reported which include: *Xenochrophis piscator* (Schneider, 1799), *Coelognathus radiatus* (Boie,



Fig. 1. *Pseudoxenodon macrops* (Blyth, 1854) from Talle Valley WLS. Photograph by Harshal Bhosale.



**Fig. 2.** *Pseudoxenodon macrops* (Blyth, 1854) from Talle Valley WLS, primary defensive strategy. Photograph by Harshal Bhosale.

1827), and *Lycodon aulicus* (Linnaeus, 1758) (Vogel and Kam 2010; Mirza et al., 2011).

Here, we provide the first report of the behavior in another Asian species. *Pseudoxenodon macrops* which is widely spread throughout the Indo-Chinese region in Asia. It is an uncommonly encountered species occurring in evergreen forests in regions up to 2000 m a.s.l. This snake, when threatened, flattens its neck and raises its fore body to display a hood, resembling a cobra (Whittaker and Captain, 2004) as a primary defensive strategy.

## MATERIAL AND METHODS

Observations were made on snakes in their habitats at Talle Valley WLS, Arunachal Pradesh, India by two observers (Figs. 1 and 2). The specimens were collected for the purpose of determination and photography, after which they were released in their respective habitats. Death feigning behavior was observed in this species on two occasions (Fig. 3).



**Fig. 3.** Death feigning by an individual of *Pseudoxenodon macrops* (Blyth, 1854) from Talle Valley WLS. Photograph by Vedant Thite.

## RESULTS

**Case 1.** Specimen No. 1 was encountered during the survey along the road between Manipoliang to Pange campsite (27°32'44.33" N 93°54'00.18" E, elevation: 1800 m a.s.l.) on 5th June 2012. The individual was found inside a rotten log along the roadside. On handling, the snake was initially aggressive and displayed a hood mimicking a cobra. The individual continuously attempted to bite for about 2 min. Later, as the snake was not allowed to escape, it rolled over on its back exposing its ventral side with its mouth half open and the tongue sticking out. When picked up, using a snake stick, the snake made no attempt to bite nor did it show any signs of movement. The snake lay immobile in the same position for about 10 min, tongue flickering was then observed, followed by slow movement and finally the snake slowly tried to escape.

**Case 2.** Specimen No. 2 was found on the road from Pange campsite and Talle Valley (27°33'30.05" N 93°53'30.27" E, elevation: 1800 m a.s.l.). The specimen was collected and brought back to the Pange campsite for examination and photography. While photographing, the individual tried to bite and to escape. However, this aggressive behavior was followed by abrupt and complete cessation of movement coupled with opening the mouth sticking out the tongue and exposing the ventral side similar to specimen 1. This state lasted for about 5 min after which the snake revived and attempted to escape slowly and tried to bite again but did not exhibit death feigning again.

## DISCUSSION

Earlier, few herpetologists and colleagues have observed this behavior in *Pseudoxenodon macrops* from other parts of Arunachal Pradesh, India. Unfortunately these observations were not recorded or published (Chintan Sheth, personal communication). It is not known if there is any correlation of this behavior with environmental factors like temperature, humidity etc. A detailed study on death feigning behavior in snakes of Asia is desired and a comparison of the conditions in which this behavior is exhibited would be interesting.

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