

## Rediscovery and updated distribution of *Lycodon septentrionalis* from Mizoram state, north-east India

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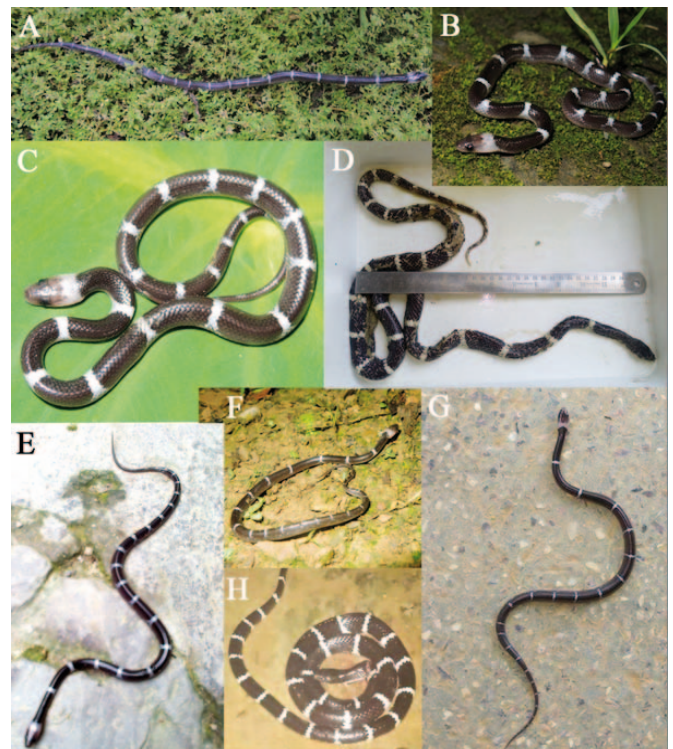
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The white-banded wolf snake *Lycodon septentrionalis* (Günther, 1875) is a nocturnal, terrestrial, colubrid snake known to feed on small vertebrates including snakes. It can reach up to 1,800 mm in total length and inhabits the mid-hills of evergreen forests at elevations ranging between 220 - 2,100 m a.s.l. (Das & Das, 2017). The species is considered rare and there is little information on its natural history (Murthy et al., 1993). The known range of this species includes India (northern West Bengal, Assam, Arunachal Pradesh, Nagaland and Mizoram), Bhutan, Myanmar, Laos, Vietnam, Thailand, Cambodia, and China (Uetz et al., 2020). A total of only nine *L. septentrionalis* specimens have hitherto been reported from India (Das & Vasudevan, 2015).

In this study, we document 10 new location records for *L. septentrionalis* in Mizoram state represented by four specimens we collected as well as information obtained from private collections and photographs (Fig. 1). The four collected specimens have been deposited in the Departmental Museum of Zoology, Mizoram University (MZMU). The locations for the ten new records are plotted in Figure 2 and the collection details are given in the Supplementary Material on the British Herpetological Society website (see note at the end of this article).

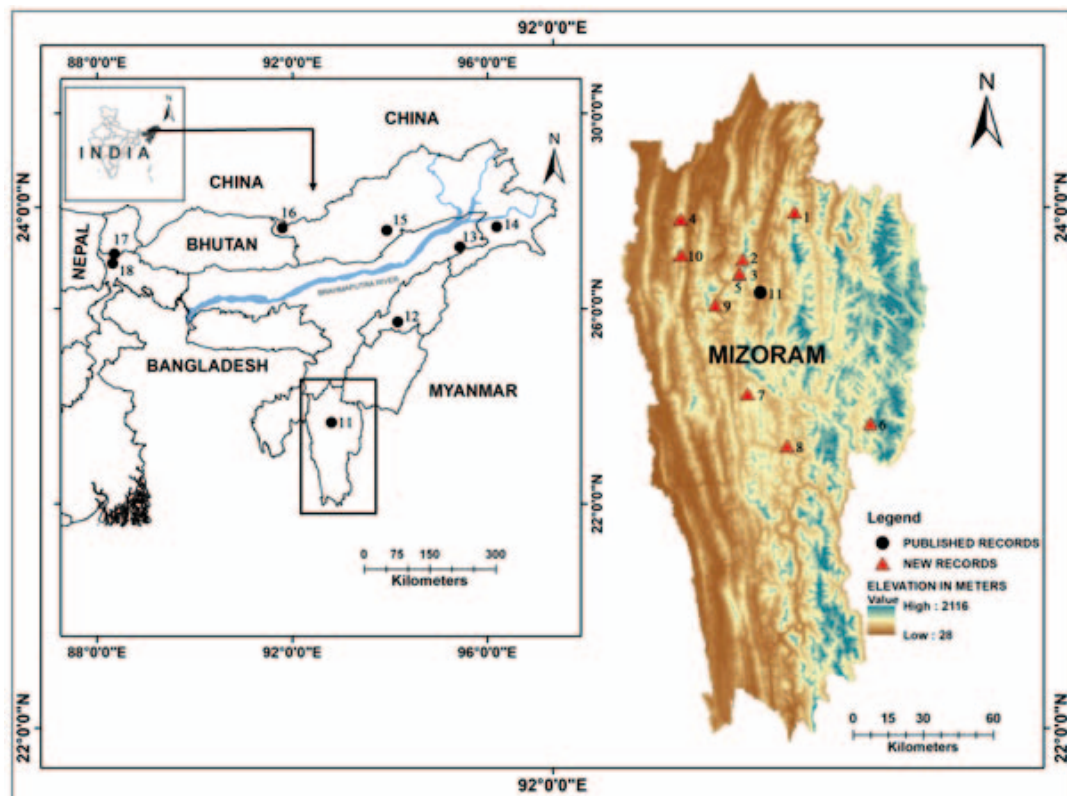
*Lycodon septentrionalis* can be diagnosed and distinguished from its sympatric congeners in the region by having a purplish-black dorsum with narrow transverse white bands and a white venter that is sometimes spotted or barred with black. This differs from other species - *Lycodon zawi* Slowinski, Pawar, Win, Thin, Gyi, Oo & Tun, 2001 has poorly developed white cross-bands on a brownish black dorsum; *Lycodon laoensis* Günther, 1864 has yellow cross-bands on a brownish black dorsum; *Lycodon fasciatus* (Anderson, 1879) has yellowish cross-bars of irregular outlines on a black or purplish-black dorsum; *Lycodon jara* (Shaw, 1802) is striped all over with a yellow pattern being formed by small spots or short longitudinal lines on a brownish or purplish black dorsum; and *Lycodon aulicus* (Linnaeus, 1758) has white or yellowish cross-bars on a brownish or greyish dorsum. Moreover, we diagnosed the species by using an adult male specimen that had a maxillary bone extending beyond the palatine, bent inwards but not arched, with 7 anterior teeth increasing in size, fang-like, and a diastema separated the 7 anterior teeth from the other 5 teeth, the last three of them are larger than the others. In the case of other *Lycodon* species the maxillary bone is strongly arched and bent



**Figure 1.** *Lycodon septentrionalis* from different localities in Mizoram, India; **A.** Juvenile collected from Sawleng; **B.** Juvenile found at Durlang; **C.** Juvenile from Chandmari West; **D.** Road-killed adult male from Mamit Jail Road, Mamit; **E.** Juvenile from Hunthar; **F.** Juvenile from Khawbung; **G.** Juvenile from PTS Thenzawl; **H.** Unsexed adult killed by local people at Khawrihnim

inwards anteriorly, with 3–6 anterior teeth increasing in size, fang-like, and separated by a toothless space from the rest 7–15 in number, the last two of which are larger than the others (Smith, 1943). Detailed morphometry and scalation data of four specimens were recorded (see Supplementary Material).

The first specimen of *L. septentrionalis* from Mizoram state was collected by T. G. Vazirani on 23 October 1960 (Z.S.I. Reg. No. 21904; snout-vent length=305 mm; tail length=85 mm) from Bhumtilong, ca. 16 km from Aizawl in the northern part of Mizoram (Talukdar & Sanyal, 1978). Today, it is very difficult to be certain of this site as the name of the locality provided is nowhere to be found in the state. Moreover, Das & Vasudevan (2015) plotted Bhumtilong in the location of Ratu village, in the north-eastern part of Mizoram



**Figure 2.** Map showing the distribution of *L. septentrionalis* in north-east India with emphasis on Mizoram state. The records 1 to 10 are new and from the following localities in Mizoram - 1. Sawleng, 2. Durtlang, 3. Chandmari West, 4. Mamit Jail road, 5. Hunthar, 6. Khawbung, 7. Thenzawl, 8. Pangzawl, 9. Khawrihnim, 10. Dampu; 11 is the only previously published record from Mizoram (Bungtlang/Bhumtilong); 12 to 18 are published records from localities in other states (see Das & Vasudevan, 2015) as follows- 12. Kohima, 13. Namsang, 14. Kahare, 15. Ziro, 16. Zimithang, 17. Darjeeling, 18. Phubsering

which is ca. 143 km from Aizawl. We suggest the locality is Bungbanga (Bungalow) formerly known as Bungtlang located at ca. 16 km from Aizawl (23° 43'47" N, 92° 46'46" E) in the northern part of Mizoram state where the state government constructed an inspection bungalow and later a guest house (C. Vanlallawma, pers. comm.).

*Lycodon septentrionalis* has not been reported from Mizoram for 60 years after it was first collected. Our new records were made between 2013 and 2019 and constitute the southernmost localities in India at altitudes ranging from 703 m to 1310 m a.s.l. (Fig. 2) and represent a rediscovery of this species within the state, with confirmation of its occurrence in five Mizoram districts. It may be inferred that *L. septentrionalis* is not an uncommon species in Mizoram which is not surprising as until recently the ophidian fauna of Mizoram had remained very poorly surveyed.

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