



Research Article

New records of Common Wolf Snake *Lycodon aulicus* (Linnaeus, 1758) (Serpentes: Colubridae) from Uttar Pradesh (India), with distribution of other Indian species

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ABSTRACT

Present study deals with the new records of *Lycodon aulicus* (Linnaeus, 1758), the Common Wolf Snake, belonging to family Colubridae, from Shikohabad (Firozabad district) and Ghaziabad proper (Ghaziabad dist.), Uttar Pradesh (India) with its systematic account, distribution, habitat, food & feeding, breeding, behaviour, threats and distribution of other Indian species.

Keywords: New records, *Lycodon aulicus*, Uttar Pradesh.

INTRODUCTION

The snakes of Uttar Pradesh are meagerly known (Wall, 1907a. b; Smith, 1943; Talukdar & Dasgupta, 1977; Basu, 1989; Sankaran, 1989; Hellermann et al., 2001; Das et al., 2012; Mohan, 2020). Kanaujia et al. (2017) listed 38 species from Uttar Pradesh but didn't mention the district or locality and even the zones in which they divided the state. They considered *Gongylophis conicus* and *Eryx conicus* separate species which is not justified as being *G. conicus* is a synonym of *E. conicus* (ref. reptile-database). Further, they mentioned *Argyrogena fasciolata* twice in their list at Sl. Nos. 13 and 20.

Recently two good specimens of *Lycodon aulicus* (Linnaeus, 1758), the Common Wolf Snake, were sighted at Shikohabad (Firozabad district) and Ghaziabad (Ghaziabd district) located in south-west and western parts respectively of Uttar Pradesh state, which have not been recorded earlier from these districts and hence reported here. These will be the first records of any snake or reptile from the area.

COLLECTION SITE 1: RUKANPUR, SHIKOHABAD

Physiography: Shikohabad (27.6° 29' N Latitude and 78.35° 12' E) is a town in Firozabad district in south-west of Uttar Pradesh, with 252 m elevation, River Sirsa flowing through it. Rukanpur is a residential area in the city, on Etawah road.

Climate: Maximum temperature av. 44° C in summer (May) and minimum av. 12° C in winter (January) with

av. max. rainfall 350 mm (July) and humidity ca.80% (August).

Flora (residential area): *Monoon longifolium* (syn. *Polyalthia longifolia*), the False Ashoka (Annonaceae); *Sabal palmetto*, the Sabal Palm (Arecaceae); *Delonix regia*, the Flame Tree (Leguminosae); *Azadirachta indica*, the Neem (Meliaceae); *Bougainvillea glabra*, the Paper flower (Nyctaginaceae); some flowering plants.

COLLECTION SITE 2: INDIRAPURAM, GHAZIABAD

Physiography: Ghaziabad (28.67° N and 77.42° E) is located in north-western Uttar Pradesh and part of National Capital Region of Delhi, with 204 m elevation. River Hindon flows through it. Indirapuram is a residential colony in Ghaziabad city.

Climate: Maximum temperature ranges av. 40° C in summer (May) and minimum av.8° C in winter (January) with av. max. rainfall 218 mm (July) and humidity 78% (August).

Flora: Typical of U.P. plains.

Mangifera indica, the Mango (Anacardiaceae); *Polyalthia longifolia*, the Ashok (Annonaceae); *Plumeria obtuse*, the Champa (Apocynaceae); *Ehretia laevis*, the Chamrod (Boraginaceae); *Terminalia arjuna*, the Arjun (Combretaceae); *Acacia auriculiformis*, the Ear-pod Wattle, *Bauhinia variegata*, the Kachnar and *Cassia fistula*, the Amaltas (Leguminosae); *Azadirachta indica*, the Neem (Meliaceae); *Ficus bengalensis*, the

Bargad, *F. religiosa* the *Peepal*, *F. virens*, the *Anjeer* and *Morus alba*, the *Shehtoot* (Moraceae); *Neolamarckia cadamba*, *Psidium guajava*, the *Amrood* and *Syzygium cumini*, the *Jamun* (Myrtaceae); *Nyctanthes arbor-tristis* the *Harsingar* (Oleaceae); *Neolamarckia cadamba*, the *Kadamb* (Rubiaceae); *Mimusops elengi*, the *Maulsari* (Sapotaceae), etc.

LYCODON AULICUS (LINNAEUS, 1758)

Systematic account and Distribution

Synonymy:

Coluber aulicus Linnaeus, 1754. *Mus. Adolph. Frider.*, 1: 29, pl. 12, fig. 2 (type-locality: not known); Linnaeus, 1758. *Syst. Nat.*, (10th Ed.), 1: 220/381.

Lycodon unicolor Boie, 1827. *Isis*: 551 (based on Russell, 1801. *Ind. Serp.*, 2, pl. 39) (vide Smith, 1943).

Lycodon subfuscus Cantor, 1839. *Proc. Zool. Soc. London*, 1839: 50 (type-locality: Bengal).

Lycodon atropurpureus Cantor, 1839. I. c. s.: 50 (type-locality: Mergui, Tennaserim); Boulenger, 1890. *Faun. Brit. India*: 356; Boulenger, 1891. *Ann. Mag. Nat. Hist.*, (6) 7: 463; Boulenger, 1893. *Cat. Snakes Brit. Mus. (Nat. Hist.)*, 1: 356.

Lycodon aulicus, Guenther, 1864. *Reptiles of British India*: 316; Stoliczka, 1870. *J. Asiat. Soc. Bengal*, 39: 201; Boulenger, 1893. *Cat. Snakes Brit. Mus. (Nat. Hist.)*, 1: 352; Wall, 1921. *Ophidia Taprobanica or Snakes of Ceylon*: 151; Waltner, 1974. *Cheetal*, 16; Husain & Ray, 1995. *Reptilia*. In: *Fauna of Western Himalaya, Part 1, Uttar Pradesh. Himalayan Ecosystem Series*: 163; Husain & Tilak, 1995. *Snakes (Reptilia : Serpentes)*. In: *Fauna of Rajaji National Park. Fauna of Conservation Areas*, 5: 95; Lanza, 1999. *Tropical Zoology*, 12: 89-104; Daniel, 2002. *The Book of Indian Reptiles and Amphibians*; Das, 2002. *A Photographic Guide to Snakes and Other Reptiles of India*; Whitaker & Captain, 2008. *Snakes of India- the field guide*; Goonawaedene *et al.*, 2006. *The Herpetofauna of the Kanuckles Range. Amphibian and Reptile Research Organization of Sri Lanka*; Murthy, 2010. *The Reptile Fauna of India*; Khan, 2014. *Bull. Chicago Herp. Soc.*, 49 (3): 33-34; Wallach *et al.* 2014 (in part). *Snakes of the World*: 391; Pawar & Qureshi, 2016. *Sauria*, 38 (1): 50-57; Tank & Sharma, 2016. *Herpetological Review*, 47 (3): 480; Kumari, 2017. *International Journal of Engineering, Science and Mathematics*, 6 (3): 284-287; Ganesh & Vogel, 2018. *Bon zoological Bulletin*, 67 (1): 25-29, 34-35, figs. 1a-h, 5, 6.

Lycodon aulicus oligozonatus Wall, 1909. *J. Bombay nat. Hist. Soc.*, 19 (1): 89 (type-locality: Cannanore, S. India).

Ophites aulicus, Wall, 1921. *Ophidia Taprobanica or Snakes of Ceylon*; Teo & Rajathurai, 1997. *Garden's Bull. Singapore*, 49: 353-425.

Lycodon aulicus aulicus, Smith, 1943. *Faun. Brit. India*, 3 (Serpentes): 265, fig. 89.

Lycodon travancoricus (nec Beddome, 1871), Rao *et al.*, 2005. *Zoos' Print Journal*, 20 (1): 1737-1740.

Lycodon cf. aulicus, Ganesh *et al.*, 2020. *Amphibian & Reptile Conservation*, 14 (3) [Taxonomy Section]: 80, figs. c-e.

Vernacular Names: *Maroli* (Assamese), *Ghor-chitti Sanp* (Bengali), *Garar*, *Kavdya*, *Kawriwala Sanp*, *Sakhar* or *Sankhra Sanp* (Hindi).

Material Examined: 1 example (*ca.* 65 cm; appear fed on some rat), Syedain Mosque, Chowk Haji Aijaz Husain, Rukanpur, Shikohabad, District Firozabad, Uttar Pradesh, 19.i.2020 (night), by Er. Syed Babar Husain.

1 example (*ca.* 70 cm), ATS Advantage, near Ghazipur Border, Indira Puram, Ghaziabad (NCR Delhi), Uttar Pradesh, 6.ii.2020, by Dr. Vinod Khanna.

Diagnostic Features:

Morphology: Body slender/cylindrical with heavy-thick set; head stoutly-built, large, broader than neck; snout broad, much depressed, long, spatulate and projecting beyond lower jaw; upper lip swollen; nostrils small, directed upwards; eyes small; hemipenis fairly thin, cylindrical, short, slightly forked at tip, with smaller flounces and spines and extending up to 10th subcaudal scale.

Colouration: Head with a distinct creamy-white colour-mark across parietal scales, converging towards snout tip; upper lip white or spotted with brown; neck with a pale collar which may be absent; body brownish or greyish-brown above with 9-20 creamy-white narrow cross bars, forked on sides.

Scales/shields:

Head Shields: Rostral scale scarcely visible from above; nasals small, sutured, touching 1st and 2nd supralabials; loreal single, longer than broad, not touching orbit; internasals large, higher than broad, touching loreal; prefrontals vertically oblong and equal to frontal, broadly touching loreal and preocular; preocular single, touching (rarely not) frontal and 3rd labial; frontal triangular, slightly larger than supraocular, usually touching preocular; supraocular not touching prefrontal; postoculars 2, small; temporals usually 2+3+3; supralabials usually 9, 3rd – 5th touching orbit/eye; parietals very large, subequal in length; infralabials horizontally elongate, 10-11, 1st -5th touching genials. (Ganesh *et al.* (2020) found loreal-internasal not touching and nasal-prefrontal touching in *Lycodon cf. aulicus*).

Body Scales: Dorsals 17 : 17 : 15 rows, smooth and glossy, imbricate, with mild apical pits; preventrals usually 1-3; ventrals angulate laterally; anal divided, rarely entire; subcaudals paired.

Variations in dorsals, ventrals and subcaudals counts have been by various workers as under:

Guenther (1864) found 183-209 ventrals, anal entire in few and 57-77 subcaudals. Smith (1943) and Whitaker & Captain (2008) mentioned 172-214 ventrals and 57-80 subcaudals. Kumari (2017) observed 170-224 ventrals and 56-80 subcaudals. Ganesh & Vogel (2018) counted 1-3 pre-ventrals; 180-206 ventrals and 61-78 subcaudals in males and 186-215 and 56-74 in females. Ganesh *et al.* (2020) reported 16 : 17 : 16 dorsal rows, 195+3 and 194 ventrals and 66 and 58 subcaudals (in *Lycodon cf. aulicus*).

Length: Total length 71 cm, tail 11 cm (Boulenger, 1893); 7.375" hatchlings (Wall, 1907b); male 76 cm, tail 14.5 and female 70 cm, tail 12 cm (Smith, 1943); 83 cm, males longer than females (Husain & Tilak, 1995); hatchlings 14-19 cm (Das, 2002); Adults 30-80 cm, hatchlings 14 cm (Whitaker & Captain, 2008); total length 71 cm, tail 11 cm and hatchlings 14-19 cm (Kumari, 2017); av.50.0 cm, largest female 71.9 cm; relative tail length avg. 0.172-0.204 in males, 0.146-0.191 in females (Ganesh & Vogel, 2018); snout-vent length 449 mm, tail length 96 mm and 310 mm, 62 mm as *Lycodon cf. aulicus* (Ganesah *et al.*, 2020); females larger than males (wikipedia); ca. 65 and 70 cm (present specimens).

Altitudinal Records: Plains to 1,800 m (Waltner, 1974; Husain & Ray, 1995); Plains and hills up to 2,000 m (Husain & Tilak, 1995); 213 m / 700 ft at Punakanaat, Travancore (Ganesh & Vogel, 2018); 204 m at Ghaziabad and 252 m at Shikohabad (present).

Distribution: South Asia and South-east Asia.

Uttar Pradesh: Ghaziabad and Shikohabad (present new records).

Rest of India: Almost throughout, including Andaman & Nicobar Islands. Andhra Pradesh (Kinelly/Kimdey Hills; Visakhapatnam dist.), Assam (Dibrugarh), Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand (Jungnathpur- Ranchi), Karnataka (Bengaluru; Mysore), Kerala (Kannur / Cannaannore, Malabar; Punaka-naat- Travancore; Waynad), Lakshyadeep, Madhya Pradesh (Balaghat; Bisrampur; Jabalpur), Maharashtra (Ahmednagar; Matheran), Odisha, Punjab, Rajasthan (Ajmer), Tamil Nadu (Alakan- Tiruchendur; Namakkal dist.), Tripura, Uttarakhand (Almora, Dehra Dun and Nainital; Rajaji Tiger Reserve) and West Bengal (Barnijunoh; Howrah; Kolkata; Paschim Bardhaman; Paschim Medinipur/West Midnapore).

Elsewhere: Bangladesh, Bhutan, China, Hong Kong, Indonesia, Malaysia, Mascarene Islands, Mauritius, Myanmar, Reunion Islands, Nepal, Pakistan, Philippines, Seychelles, Sri Lanka and Thailand.

Habitat: Lives under stone or old brick piles, hollow of trees, old houses and in deserted wells. It can climb small trees and bushes.

Food & Feeding: Feeds on geckos, skinks, mice, rats and shrews and also on frogs, toads and bird eggs. Skinks form almost its sole food (Guenther, 1864). Its 'fang-like' long teeth on both jaws help in holding and piercing the prey (Tank & Sharma, 2016).

Breeding: Oviparous; female lays 3- 16 elongated eggs in 2-3 bunches of about 3-5 eggs during summer season (Wall, 1907b; Husain & Tilak, 1995; Whitaker & Captain, 2008; Khan, 2014; Kumari, 2017; wikipedia; reptile database).

Behaviour: It is nocturnal and mostly inactive during the day time. Though non-venomous but of fierce habits and defends itself vigorously and can cause severe lacerations with its fine sharp fangs. It may feign death to lure the potential prey and to avoid being chased by predators (Pawar & Qureshi, 2016; Kumari, 2017).

Conservation Status: Not assessed.

Threats: Killings, being confused with Common Krait-like colour pattern.

DISTRIBUTIONWISE 12 INDIAN SPECIES OF *LYCODON* FITZINGER, 1826

1. *Lycodon aulicus* (Linnaeus, 1758), the Common Indian Wolf Snake: India (as above), Bangladesh, Bhutan, China, Myanmar, Nepal and Pakistan and Sri Lanka.

2. *Lycodon striatus* (Shaw, 1802), the Barred Wolf Snake: India (Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Telangana, Tamil Nadu and Uttar Pradesh), Nepal, Pakistan and Sri Lanka.

3. *Lycodon jara* (Shaw, 1802), the Twin-spotted Wolf Snake: India (Arunachal Pradesh, Assam, Bihar, Odisha, Uttarakhand and West Bengal), Bangladesh, Bhutan, Myanmar and Nepal.

4. *Lycodon capucinus* Boie, 1827, the Oriental Wolf Snake: India (Andaman & Nicobar Islands), Cambodia, China, Christmas Islands, Hong Kong, Indonesia, Laos, Malaysia, Maldives, Mauritius, Myanmar, New Guinea, Philippines, Reunion Island, Singapore, Thailand and Viet Nam.

5. *Lycodon anamallensis* Guenther, 1864, the Colombo Wolf Snake: India (Andhra Pradesh, Kerala, Puducherry and Tamil Nadu) and Sri Lanka.

6. *Lycodon hypsirhinoides* (Theobald, 1868): India (Andaman & Nicobar Islands).

7. *Lycodon laoensis* Guenther, 1864, the Laotian Wolf Snake: India (Arunachal Pradesh) Cambodia, China Laos Malaysia, Nepal Thailand and Viet Nam.

8. *Lycodon travancoricus* (Beddome, 1870), the Travancore Wolf Snake: India (Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha and Tamil Nadu).

9. *Lycodon flavomaculatus* Wall, 1907, the Yellow-spotted Wolf Snake: India (Gujarat, Madhya Pradesh, Maharashtra, Northern Western Ghats and Tamil Nadu).
10. *Lycodon tiwarii* Biswas & Sanyal, 1965, the Andaman Wolf Snake: India (Andaman & Nicobar Islands).
11. *Lycodon zawi* Slowinski et al., 2001, the Zaw's Wolf Snake: India (Assam, Meghalaya, Mizoram and Tripura), Bangladesh and Myanmar.
12. *Lycodon flavicollis* Mukherjee & Bhupathy, 2007, the Yellow-collared Wolf Snake: India (Andhra Pradesh, Karnataka, Tamil Nadu and Telangana).

13. *Lycodon deccanensis* Ganesh et al., 2020: India (Andhra Pradesh, Karnataka and Tamil Nadu).

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Figure 1: *Lycodon aulicus*, the Common Wolf Snake from Shikohabad (Credit: Er. Syed Babar Husain)



Figure 2: *Lycodon aulicus*, the Common Wolf Snake from Ghaziabad (Credit: Dr. Vinod Khanna)

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