International Journal of Applied and Universal Research **E-ISSN No: 2395-0269**
Volume XIII, Issue IV, July– August 2026 **Available online at: www.ijaur.com**
Impact Factor- 5.999

SNAKE VARIETIES AND DISTRIBUTION IN CHALISGAON REGION, MAHARASHTRA, INDIA

Akash Dhumal and Ajit Kalse
P.G. Dept. of Zoology,
NYNC Arts, Science & Commerce College, Chalisgaon, Dist. Jalgaon

Abstract:- The Chalisgaon region, situated at the confluence of the Girna river basin and the Satmala-Ajanta hill ranges, represents a critical ecotone for reptilian biodiversity. This study documents the diversity of snakes based on rescue data collected over a specific period. The study was conducted from January 2024 to June 2024 A total of 14 species belonging to 5 distinct families were recorded, comprising 4 venomous and 10 non-venomous species and semi-venomous. The study highlights the dominance of the Colubridae family and discusses the seasonal trends of human-snake encounters. Furthermore, it emphasizes the role of community-based rescue operations in mitigating human-snake conflict and promoting wildlife conservation in North Maharashtra. (Chalisgaon Region).

KEYWORDS:- Snake diversity, Chalisgaon region, Colubridae, Human-snake conflict, Wildlife rescue, Ecotone.

INTRODUCTION:-

India harbours a rich diversity of reptilian fauna, hosting roughly 270 snake species representing nearly 9% of the global snake diversity (Uetz et al., 2021). Cataloging local species richness and understanding their ecological distributions is fundamental to regional biodiversity conservation. Snakes play an indispensable ecological role in terrestrial and aquatic food webs as key predators, particularly in controlling rodent populations within agricultural landscapes (Pasar & Paul, 2016). Despite their ecological significance, snakes frequently face severe persecution due to deep-rooted fear, lack of public awareness, and accidental encounters during field operations (Sathish Kumar, 2012; Whitaker & Captain, 2004).

The Chalisgaon region, located in the Jalgaon district of northern Maharashtra, features a distinct semi-arid climate with varied topographies comprising scrublands, agricultural fields, riverine systems, and surrounding hilly terrains. Rapid expansion of agricultural activity and human settlements into peripheral natural habitats has led to an increase in human-snake interactions. While standard systematic field surveys can be challenging in human-dominated landscapes, documented snake rescue operations provide invaluable baseline data on species occurrence and community composition. The present study aims to provide a systematic checklist of snake species recorded in the Chalisgaon region and analyze their distribution patterns to support local wildlife conservation and conflict mitigation.

METHODOLOGY:-

Study Area:

The study area encompasses Chalisgaon city and its peripheral villages within a 15 km radius. This includes urban pockets, suburban gardens, and agricultural peripheries.

Data Collection:

Data was primary in nature, gathered during rescue calls attended by the authors. For each rescue event, the species was identified, and the habitat type (e.g., residential, commercial, or agricultural) was noted.

Identification:

Morphological identification was performed using standard diagnostic keys, focusing on scale counts, head-shield patterns, and body coloration. Reference literature included "Snakes of India: The Field Guide" by Romulus Whitaker.

Fig. Google Map Chalisgaon City Maharastra

OBSERVATIONS & RESULTS:-

During the study period, 14 species of snakes were recorded. The taxonomic distribution is detailed in Table 1 below.

Table 1: Checklist of Snake Species Observed in Chalisgaon

Sr. No.	Common Name	Scientific Name	Family	Status
1	Indian Cobra	*Naja naja*	Elapidae	Venomous
2	Common Krait	*Bungarus caeruleus*	Elapidae	Venomous
3	Russell's Viper	*Daboia russelii*	Viperidae	Venomous
4	Saw-scaled Viper	*Echis carinatus*	Viperidae	Venomous
5	Indian Rat Snake	*Ptyas mucosa*	Colubridae	Non-Venomous
6	Common Trinket	*Coelognathus helena*	Colubridae	Non-Venomous
7	Common Wolf Snake	*Lycodon aulicus*	Colubridae	Non-Venomous
8	Checkered Keelback	*Fowlea piscator*	Colubridae	Non-Venomous
9	Buff-striped Keelback	*Amphiesma stolatum*	Colubridae	Non-Venomous
10	Common Sand Boa	*Eryx conicus*	Boidae	Non-Venomous
11	Red Sand Boa	*Eryx johnii*	Boidae	Non-Venomous
12	Indian Rock Python	*Python molurus*	Boidae / Pythonidae	Non-Venomous
13	Common Cat Snake	*Boiga trigonata*	Colubridae	SEMI-Venomous
14	Green Vine Snake	*Ahaetulla nasuta*	Colubridae	SEMI-Venomous

Snakes are an important component of the biodiversity of Maharashtra and play a significant ecological role as predators within terrestrial and aquatic food webs. The state possesses considerable geographical and ecological diversity, ranging from the Western Ghats and forested hill ranges to the Deccan Plateau, semi-arid regions, agricultural landscapes, wetlands, grasslands and human-dominated habitats. This wide variation in environmental conditions supports a diverse assemblage of snake species. A recent annotated checklist documented 80 snake species and two valid subspecies belonging to 38 genera from Maharashtra, highlighting the rich ophidian diversity of the state.

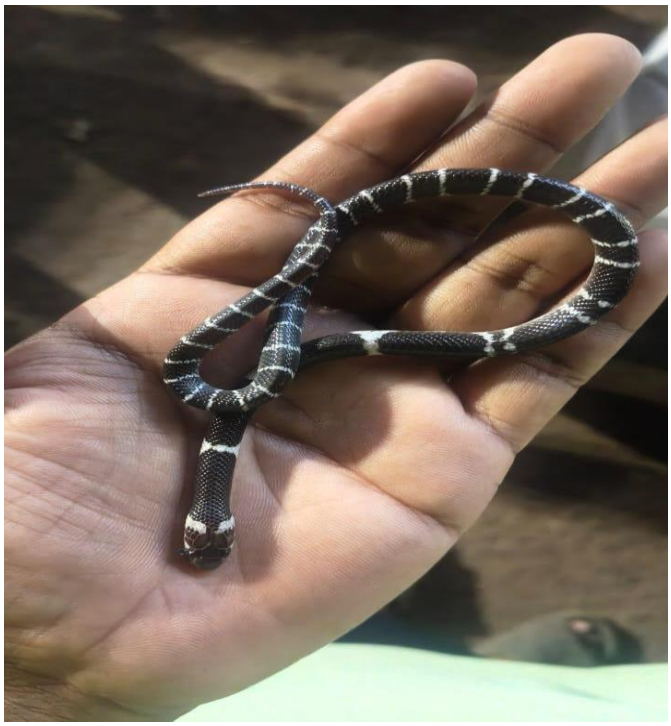
The Khandesh region of northern Maharashtra represents an important landscape for studying snake diversity. The region, broadly encompassing Dhule, Jalgaon and Nandurbar, contains a mixture of agricultural fields, scrublands, grasslands, rocky habitats, riverine areas, forest patches and human settlements. These varied habitats provide suitable conditions for different species of snakes and contribute to regional herpetofaunal diversity. The comparatively dry and seasonal climate of Khandesh, together with the influence of the Tapi River system and surrounding hill ranges, creates a distinct ecological setting within Maharashtra.

The present ten-year record of 14 snake species from Chalisgaon Taluka provides valuable baseline information on the local snake fauna. Although the present study is based on rescued and directly observed individuals rather than a standardized population survey, the records demonstrate the occurrence of a taxonomically and ecologically diverse snake assemblage in the region. The findings also highlight the importance of continued field-based documentation in Chalisgaon and surrounding Khandesh landscapes. Long-term observations, systematic photographic documentation, geographic coordinates, habitat records, seasonal occurrence and individual counts in future surveys would help establish a more comprehensive understanding of snake diversity, distribution patterns and conservation requirements in the region.

Venomous snakes :

Indian Cobra

Saw-scaled Viper



Common Krait

Non Venomous snakes :

Indian Rat Snake

Russell's Viper

Red Sand Boa

Common Wolf Snake

Common Trinket

ACKNOWLEDGEMENTS:-

The author expresses sincere gratitude to all individuals and institutions like NYNC College, Sheth Narayan Bankat Library and the Forest Department, Chalisgaon, Rajesh Thombre and Munna Tambe for providing academic resources, field observations, snake rescue activities, local biodiversity documentation and reference materials.

REFERENCES:-

1. Whitaker, R., & Captain, A. (2004). Snakes of India: The Field Guide. Draco Books.
2. Daniel, J. C. (2002). The Book of Indian Reptiles and Amphibians. Bombay Natural History Society.
3. Khaire, N. (2010). A Guide to the Snakes of Maharashtra. Jyotirvidya Parisansthan.
4. Bansode SA and More VR. (2018) An updated list of serpent from Palghar district of Maharashtra, India. J Entomol Zool Stud. 6: 375-379.
5. Bansode SA, More VR and Mirza KA. (2016) A study on snakes from Mokhada and Jawhar (Dist. Palghar) Maharashtra, India. Int J Fauna Biol Stud. 3: 103-115.
6. Ingale P, Bali S and Khandale J. (2014) Preliminary survey of snake diversity from Malegaon Tehsil of Washim District. World J Zool 9(2): 134-137.
7. Joshi P. of (2011) A preliminary survey on the snake Buldhana district, Maharashtra. Golden Res Thoughts 1(2): 1-4.
8. Whitakar R and Captain A. (2008) Snakes of India. The Field Guide. 2nd edn., Draco Books.
9. Tambre NG and Chavan SP. (2016) Snake species diversity of Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra State, India. Int J Curr Res Aca Rev. 4(6): 104-115.
10. Kale GB, Vairale Shiva and Ghait SN. (2019) Study of snake species diversity in rural and semi urban areas of Buldhana district of Maharashtra, India. Int J Life Sci. A13: 219-225.

11. Salunkhe RV. (2023) Snakes of Indapur: Diversity and awareness. 1st edn., Bhumi Publishing, Nigave Khalasa, Kolhapur, Maharashtra, India.

12. Wanje SD and Gadekar RD. (2011) Clinical profile of snake bite cases in Marathwada, India. Indian J Fundamental Appl Life Sci. 1(4): 93-99.

13. Walmiki N, Awsare V, Karangutkar S, Wagh V, Yengal B, Salvi S and Pillai R. (2012) Herpetofauna of Maharashtra Nature Park, Mumbai, Maharashtra (India). World J Environ Biosci. 1(2): 90-99.