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Diversity of Snakes in Dindori District Madhya Pradesh, India

Anupriya Karode* and Dr. Bilquees J. Khan**

*Research Scholar, Department of Zoology, SAM Global University, Bhopal, M.P.

** Associate Professor, Department of Zoology, SAM Global University, Bhopal, M.P.

Abstract

Snakes play an important role in functioning of ecosystem due to predatory nature. They are involved in food chain and Food web. The present study reported 19 species of snakes belonging to 6 families from district Dindori of Madhya Pradesh. Forest area is different from rock area. Some species are common some are rare and some are very rare. There is an urgent need for strategies to conserve these rare and threatened snakes in these regions to maintained biodiversity.

Key words -: Snakes, Dindori, Diversity

Introduction

Snakes are considered as successful predatory vertebrate animal. They are found in tropical to temperate environment (Pauwel et al 2008). Snakes are vertebrates lacking limbs and body cover by scales. snakes are cold blooded animal and can not manage their body temperature. Snakes are found in a verity of habitat like tree, rocks, bushes, water land and underground also. Some snakes are diurnal but most of snkaes are nocturnal due to lake of their predators. India has over 279 species of snakes out of 38 species are found in the state of Madhya Pradesh (www.mpsbb.nic.in). Dindori district is relatively less explored and many more species to light. Present study update knowledge about the diversity in the Dindori district of the Madhya Pradesh.

Study area

Dindori is a district of Madhya Pradesh state of central India. The town of dindori is the district headquarter. The district is a part of Jabalpur Division. The district covers an area of 7470 sq km and located on the eastern part of Madhya Pradesh. The district is situated between the latitudes 22.17N and 23.22N and longitudes 80.35E and 80.58E (www.dindori.nic.in) through the bank of Narmada River.

Material and Method

The study was conducted from June 2020 to May 2021 including all seasons. Field expedition were carried during summer and post monsoon months. All snakes were documented during survey on visual sighting in urban, rural and forest areas. The specimen was not collected or harmed due to legal and ethical causes. The possibility of availability of the species with also help of local communities residing in study area by interviewing and showing different color photographs of snakes. On the basis of identification by local communities and our filed survey check list was prepared.

All the species were identified by using latest available taxonomic literature and field guide like (Whitaker and Captain 2016) and (Khaire, N.,2021). Species which were observed more than 10 individuals are considered as common, individual count less than 10 during study considered as rare or uncommon and less than 5 consider as very rare.

Result and Discussion

During the study period 19 species belonging to 6 families of snakes were observed. The diversity of the observed snake's fauna is presented in Table 1. Total 18 species under 5 families were found. 7 species from Colubridae, 2 from Boidae, 4 from Elapidae, 3 from Viperidae and 2 species from Typhlopidae and 1 from Pythonidae were reported from Dindori district. *Amphiesma stolatum*, *Denerelapis tristis*, *Xenocrophis piscator*, *Ptyas mucosa*, *Oligodon arnensis*, *Bungarus caeruleus*, *Indotypllops porrectus* *Python molurus* and *Indotypllops braminus* are some common species of snakes were found. *Sibynophis subpunctatus*, *Macropisthodon blumbicolor* not reported which were reported in Jabalpur (Sheikh,H.A. et al ,2017). *Naja naja*, *Echis carinatus* and *Daboia russelii* are rare considered rare and found in less number due to anthropogenic activity. *Rhabdophis plumbicolor*, *Cognathus helena monticollaris*, *Bungarus fasciatus*, *Trimeresurus* sp., *Naja naja* and *Eryx johnii* were very rare and hard to reconfirm. *Trimeresurus* sp. were very rare and reported only ones (www.newsnation.com). *Cognathus helena monticollaris* was hardly to identified done with the help of Mr. Mukesh Ingle (Founder- Director, Replite Conservation and Research Center, Ujjain). Different habitat sites showed more or less even distribution of snakes. In study we found few species belong to very rare category that is globally threatened.

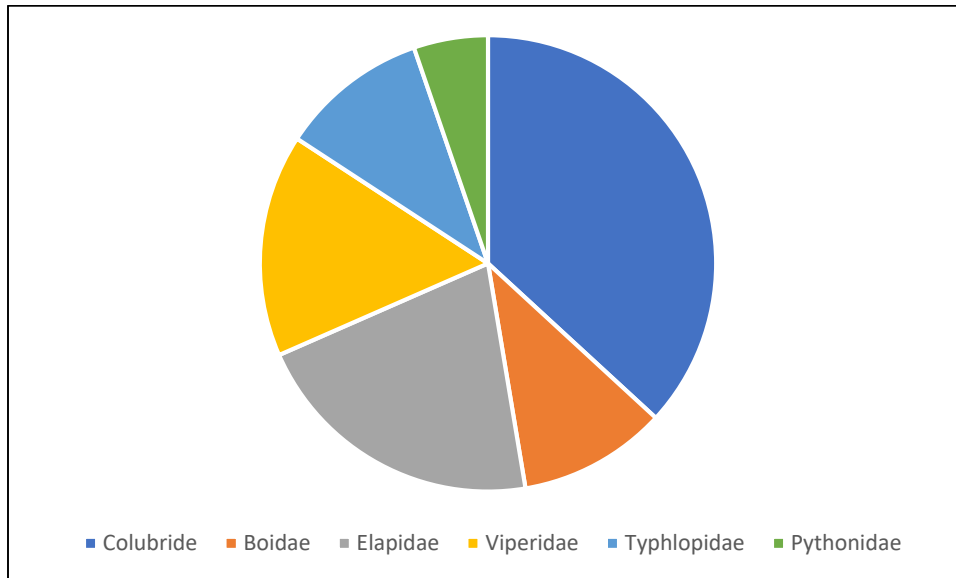
Table 1. Diversity of Snake fauna in Dindori district.

S.No.	Species	Common Name	Family	Abundance
1	<i>Amphiesma stolatum</i>	Seeta lati or Satbahani	Colubride	C
2	<i>Denerelapis tristis</i>	Common bronzeback	Colubride	C
3	<i>Xenocrophis piscator</i>	Paniyal or Paniwala saanp	Colubride	C
4	<i>Ptyas mucosa</i>	Rat snakes or Ghoda Pachhad or Asadiya	Colubride	C
5	<i>Rhabdophis plumbicolor</i>	Green Keelback	Colubride	VR
6	<i>Oligodon arnensis</i>	Common kukri snake	Colubride	C
7	<i>Colognathus helena monticollaris</i>	Montane Trinket Snake	Colubride	VR
8	<i>Eryx johnii</i>	Sand Boa or Do muha	Boidae	VR
9	<i>Eryx conicus</i>	Sand Boa or Do muha	Boidae	R
11	<i>Bungarus fasciatus</i>	Dand or Gehuan or Banded krait	Elapidae	VR
12	<i>Naja naja</i>	Indian Spitting Cobra	Elapidae	VR
13	<i>Naja naja</i>	Common Cobra	Elapidae	R
14	<i>Echis carinatus</i>	Saw scaled viper	Viperidae	R
15	<i>Trimeresurus sp.</i>	Green Bamboo pit viper	Viperidae	VR
16	<i>Daboia russelii</i>	Parrawan	Viperidae	R
17	<i>Indotylops porrectus</i>	Worm snake	Typhlopidae	C
18	<i>Indotylops braminus</i>	Blind snake	Typhlopidae	C
19	<i>Python molurus</i>	Ajgar	Pythonidae	C

Table-2 Number of species belonging to family

S.No.	Family	No. of species
1	Colubride	7
2	Boidae	2
3	Elapidae	4
4	Viperidae	3
5	Typhlopidae	2
6	Pythonidae	1

Fig-1 Graph showing snakes species belonging to family



Juveniel Coelognathus helena monticollaris



Bungarus fasciatus



Python molurus



Bungarus caeruleus



Naja naja (common cobra)



Naja naja (spitting cobra)



Daboia russeli

Conclusion

India has a rich and diverse Squamata fauna. The present study reports 19 species of snakes belonging to 6 families from district Dindori of Madhya Pradesh. Different habitat sites showed more or less even distribution of snakes. In study we found few species belong to rare category that is globally threatened. When we were interviewing the local communities, one thing came to the fore that when snakes come out in the homes of most of the people, they kill those snakes. Hence there is an urgent need for strategies to conserve these rare and threatened snakes in these regions to maintained biodiversity. Further well-planned systematic approaches and knowing about the value of these snakes by the local people are needed in future to conserve the herpetology in these regions.

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