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Biodiversity of Snakes During Monsoon in Bhadrawati, District Chandrapur (M.S.) India

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Abstract: ***The snakes are the most feared reptiles on the earth, and inhabit the most inhospitable terrains of the world including dry lands, wetland and all the possible areas. The Bhadrawati region is having a large number snakes since ancient times and the name itself suggest that there are snakes in this region. So in order to assess biodiversity of snakes in the Bhadrawati region snakes were studied during monsoon season. Snakes plays important ecological role in food chain. Depletion of these animals throughout the globe and their extinction is causing a conscientious and diligent task to the people of all spheres of the society to conserve them. Species wise concentration of snakes was estimated to predict proportion of particular snake species in the region. In all near about 300 snakes were captured in the rainy season which include 246 non poisonous 53 poisonous and 01 semi poisonous type during monsoon season of 2022. Common Indian Cobra Naja naja is poisonous and Indian rat snakes among non poisonous and only one species of semi poisonous i.e. common cat snakes were found to be predominant in the region. The studies indicate prevalence of snakes in the region.***

Keywords: Snakes, poisonous, non-poisonous, semi-poisonous, Bhadrawati city.

I. INTRODUCTION

There are about 3000 snake species found all over the world. From among these 3000 species worldwide, 300 types of snakes are found in India (Khaire, Neelamkumar 1996). The snakes found in India show great great bio-diversity and their length varies from 6 mm to 100 mm, while weight ranges between few grams to several kilograms. These remarkable reptiles can live in every bio geographical region of the world, at an altitude higher than 5000 m and also survive in deep waters. Snakes occupied deserts, forests, marshy, swampy places, lakes, streams and rivers of difficult terrains (Dhamankar Atul, 2006). Literally they occupy any kind of inhospitable areas. Snakes are friends of human being if we could understand their biology and ecology but they may be hurtful if not handled correctly and not understood them appropriately. Not every species of snakes are poisonous, large number of snakes are non poisonous while few are semi poisonous. The snakes are integral part of a forest ecosystem as their position in the food chain as predators making them important in the nutrients flow. They play key ecological roles in controlling rodents pests. They maintain the balance of nature. Bhadrawati town is surrounded by about a dozen of small and large water bodies and dense reserved forest on all sites which provide shelter to these reptiles. The present research work is carried out in Bhadrawati city of Chandrapur district of Maharashtra state. The work is done during June to September in monsoon season. The snakes were captured on request call from the local people of Bhadrawati and subsequently released in dense forests after proper identification as per standard literature with the prior permission of local Forest department. Generally all snakes were captured in homes, shops, farms and fields.

II. METHODOLOGY

Local trained snake catchers had captured all the poisonous, non poisonous and semi poisonous snakes on request calls from the people in the moths July to September during the monsoon season when the snakes were in large number in the fields. The snakes were handled very carefully and all possible precautions were taken not to disturb them. The snakes were held immediately and transferred in big size plastic containers of varying sizes having holes for aeration. First aid box with anti venom was kept ready for use in the field visits so as to avoid accidents. The snakes were identified as per Devrus (1970) & Romulus Vitteker (1977).

III. RESULTS AND DISCUSSION

During monsoon season 300 snakes were captured and classified under six families namely Elaphide, Dipsadidae, Colubridae, Natricidae, Boidae and Viperidae and represents 17 types of species. 4 poisonous snakes, 12 non poisonous and 1 semi poisonous snakes were reported. The present investigation reveals that percentage of non poisonous snakes, 70% and poisonous snakes 30% and semi-poisonous snakes 1%.

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This shows that this region has large number of water bodies and there is no scarcity of water for agriculture and this city is having high rice crop yielding capacity. In this city there are large number of food storage go downs due to which number of insects and rodents were large hence the percentage of non poisonous snakes was subsequently high.

Indian rat snake (Dhaman) is found maximum while minimum occurrence was of common cat snakes and Indian rock python. Four different kinds of poisonous, 12 different kinds of non poisonous and 01 variety of semi poisonous snakes was reported from the Bhadrawati city.

In the four monthly span from June to September in all 300 snakes were recorded in the Bhadrawati city with maximum non poisonous snakes. The present studies indicate rich biodiversity of snakes. Prevalence of non poisonous snakes in the region due is due to abundance of food in the form of rodents.

Table 1: Biodiversity of Snakes in Bhadrawati of Chandrapur District

Sr.No.	Local Name	Scientific Name
A	POISONOUS SNAKES	
1	Spectacled cobra	*Naja naja*
2	Russel's viper	*Daboia russeli*
3	Common krait	*Bungurus caeruleus*
4	Slender coral snake	*Calliophis melanurus*
B	NON POISONOUS SNAKES	
1	Indian rat snake	*Ptyas mucosa*
2	Checkered keelback water snake	*Xenochrophis piscator*
3	Common trinket snake	*Coelognathus Helena Helena*
4	Banded racer	*Argyroena fasciolata*
5	Banded kukri snake	*Oligodon arnesis*
6	Striped keel back	*Amphiesma stolatum*
7	Worm snakes	*Ramphotyphlops braminus*
8	Common wolf snake	*Lycodon aulicus*
9	Bronze back tree snake	*Dendrelaphis tristis*
10	Sand boa	*Gongylophis conicus*
11	Green keel back	*Macropisthodon plumbicolour*
12	Indian rock python	*Python molurus molurus*
C	SEMI POISONOUS SNAKES	
1	Common cat snake	*Boiga trigonata*

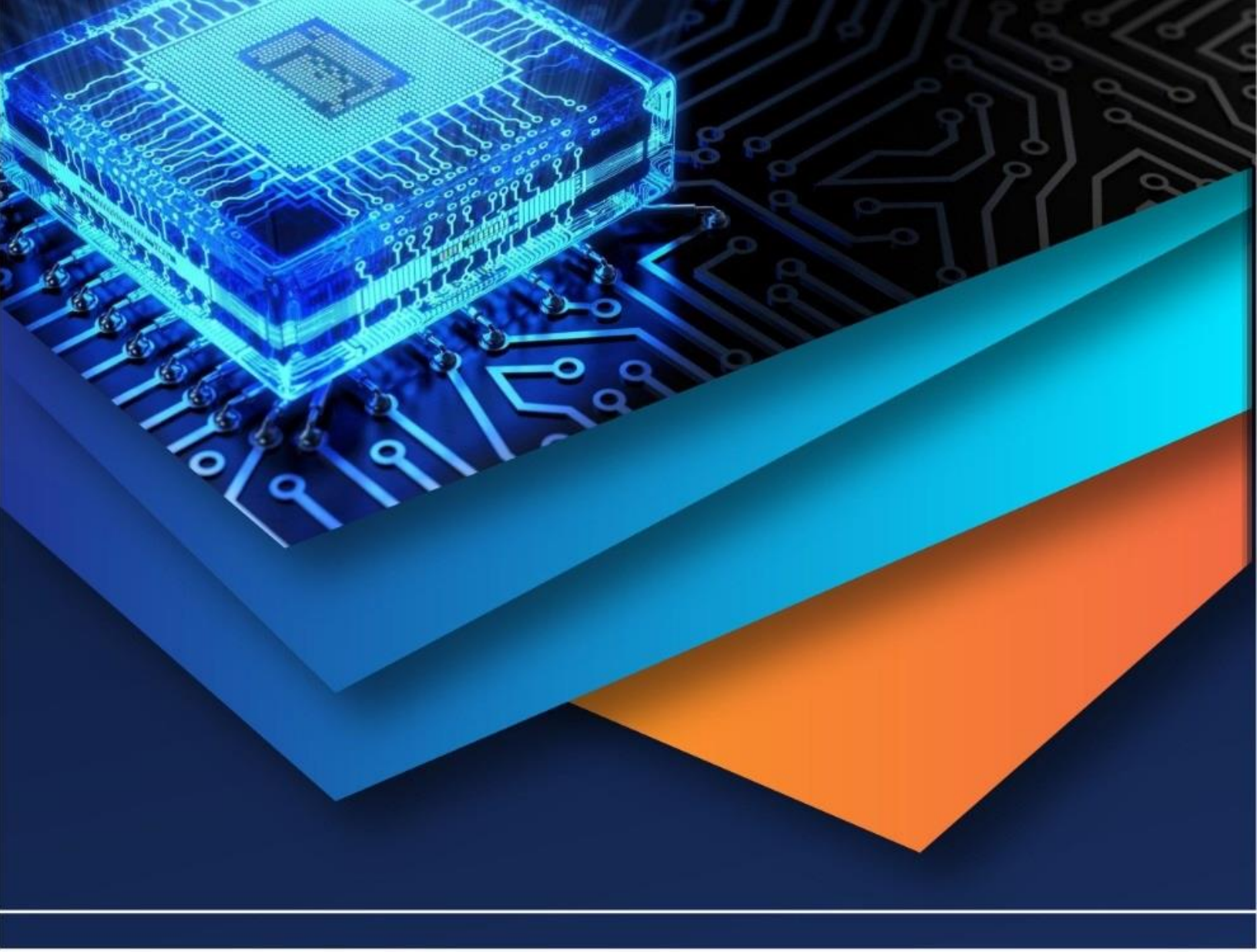
Table 2 : Distribution of Snakes in Bhadrawati city during Monsoon Season

Sr.No.	Local Name	June	July	August	Sept	Total Snakes
A	POISONOUS SNAKES					
1	Spectacled cobra	5	20	6	1	32
2	Russel's viper	3	6	4	1	14
3	Common krait	1	3	2	-	6
4	Slender coral snake	1	-	-	-	1
B	NON POISONOUS SNAKES					
1	Indian rat snake	10	30	22	10	83
2	Checkered keel back water	8	33	7	4	52

	snake					
3	Common trinket snakes	-	8	7	5	20
4	Banded racer	2	7	2	1	12
5	Banded kukri snake	3	4	2	1	10
6	Striped keel back	2	20	9	9	40
7	Worm snakes	-	5	2	1	8
8	Common wolf snake	2	5	-	-	7
9	Bronze back tree snake	1	3	-	2	6
10	Sand boa	1	3	-	-	4
11	Green keel back	-	3	-	-	3
12	Indian rock python	-	1	-	-	1
C	SEMI POISONOUS SNAKES					
1	Common cat snake	-	1	-	-	1
	TOTAL SNAKES	39	152	63	35	289

REFERENCES

[1] Devrus P.J. Snakes of India, National Book Trust (NBT),New Delhi,1970
[2] Dhamankar Atul, Aranya Vachan , Shri Vidya Prakashan, Pune. 2006
[3] Gore AM and PS Joshi. Record of dicephalic Naja naja (Lin.1758) from Washim District (M.S.) India. NCEIOR2013- J. Aqua. Biol. 114-115, 2013
[4] Joshi P. Studies on the diversity and populattion dynamics of snakes in Yavatmal district of Maharashtra, India. Bios. Biot. Res. Com. 2 (1): 99-105. 2009
[5] Joshi PS, Tantarpale SA, Tantarpale VT and KM Kulkarni. Ecology and behaviour of Coelognathus Helena montecolaris (Schulz 1992) from Buldhana District (M.S.) India. NCEIOR 2013- J. Aqua. Biol. 24-25, 2013
[6] Joshi PS, Tantarpale VT and KM Kulkarni. Sexual dimorphism in Xenochrophis piscator (Schneider 1799).AILSPF- 244-246, 2013
[7] Khaire Neelamkumar. India Snakes, Indian Herpetological Society, Pune, 1996
[8] Kotpal, R.L. Modern Text Book of Vertebrate Zoology, Medical Allied Agency, Calcutta, 1998
[9] Nande R and S Deshnukh**.** Snakes of Amravti district including melghat, Maharshtra. With important record of the Indian egg-eater, Montane trinket snake and Indian smooth snake. Zoos Print J.. **22(2):** 2920-2974., 2007
[10] Puranik P.G. and Thakur R.S. A Text Book of Chordate Zoology. S.Chand & Col.Ltd. New Delhi, 1994.
[11] Vittekar Romulus.Common India Snakes, A field Guide National Book Trust (NBT), New Delhi, 1977
[12] Wadatkar J.S. Herpetofauna of the Amravati university campus. Mahar-ashtra. Zoos Print J.. 19(2): 1381-1382, 2003



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