

A GLIMPSES OF OPHIOFAUNAL DIVERSITY IN JALPAIGURI DISTRICT, WEST BENGAL, INDIA

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ABSTRACT

Jalpaiguri is one of the diversified district of West Bengal, India in terms of its geographical, faunal and floristic characteristics. It is situated in the biodiversity zone 7B of North-East Himalayan Belt. The Longitude is 88.717468° and Latitude is 26.52202° . As Jalpaiguri under North Bengal is one of the most diversified zone (zone 7B) in India. It harbors vivid reptilian fauna specially snakes in its Tropical Rain Forest areas. There are more than 25 snakes species are being found out of listed 278 snakes (NeelimKumar, Snakes, 5th ed., 2010) species throughout the country out of which only 52 species (B.K.Saha, Snake-The Hero of Legends, 2nd ed., 2005) are venomous. Within West Bengal, in our district Jalpaiguri, of 25 identified snake species, 12 species are being identified as non venomous. 3 species are mildly venomous and rest of them is venomous. All an average more than 30 snake bite cases have been taken place every year in which 20% cases lead to fatal in Jalpaiguri district. In fact in terms of diversity of Ophiofauna, Jalpaiguri is one of the richest areas under Northern Himalayan Biodiversity belt.

Key Words: North Bengal, Venomous, Non Venomous, Mildly Venomous, Ophiofauna, Biodiversity.

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Introduction:

Doors and Terai of the Himalayan Foothills of Northern Bengal is one of the most diversified regions of India. Their vivid floral and faunal variation is remarkable in Tropical and Sub Tropical region of the world. Summer, Monsoon and winter are the main three seasons which are predominantly seen at the area. Here, annual rainfall exceeds 250 cm. During monsoon (From June to August) period it become devastating some times for heavy shower. On the other hand, winter (From September to February) have become chilly some time and temperature may fall as low as 5⁰C during this period.

Among all other creatures snakes are considered by many as perhaps the most dreadful animal that co-inhabit with us on this planet. Indians are greatly associated with snake mythology since time immortal. Highest numbers of death casualties takes place every year (More than 25000) only in India. Lacking of proper knowledge and unconsciousness are the chief factors for leading death.

The regional climate condition is more favorable for Ophiofauna here. According to some assumption approximately around 300 snake species may be found in Indian subcontinent. According to “Snakes of India- the Field Guide- by Romulus Whitaker and Ashok Captain (Draco Books, 2004)” around 275 snake species have been identified recently throughout the whole country (2003). On the other hand, 278 snakes (NeelimKumar, Snakes,5thed.,2010) species are listed throughout the country.

However, all these snake species are confined to some 6227 sq .km. area of the Jalpaiguri district. It is one of the indications that this region is very much vivid in terms of Ophiofaunal diversity.

Materials and Methods:

Through extensive survey, direct sighting, spotting method have been employed to identify the snake populations. Description and scalation are employed for each of the species including photographic evidences, standard books and references were taken into consideration separately during identification. The total time period covered in our survey from June 2011 to May 2013.

Results:

As per our findings the snake species are being categorized in the following tables:

Table1 (Non Venomous Category)

Sl. No.	Scientific Name	Common Name	Family	Occurance	Relative Abundance
1.	<i>Ramphotyphlops braminus</i>	Brahminy Worm Snake	Typhlopidae	PrM,Mon	C
2.	<i>Amphisma stoletum</i>	Buff stripped Keel Back	Colubridae	PrM,M,PoM	C
3.	<i>Xenochrophis piscator</i>	Checkered Keel Back	Colubridae	PrM,M,PoM	C
4.	<i>Dendrelaphis pictus pictus</i>	Painted Bronze Back Tree Snake	Colubridae	PrM	R
5.	<i>Coelognathus radiatus</i>	Copper-Headed Trinket Snake	Colubridae	PrM	UC
6.	<i>Oligodon arnensis</i>	Common Kukri Snake	Colubridae	PrM	R
7.	<i>Argyrogena faciolata</i>	Banded Racer	Colubridae	PrM	R
8.	<i>Lycodon aulicus</i>	Common Wolf Snake	Colubridae	PrM,M	R
9.	<i>Ptyas mucosa</i>	Indian Rat Snake	Colubridae	PrM,M,PoM	C
10.	<i>Elaschistodon westermanni</i>	Indian Egg Eater	Colubridae	PrM	R
11.	<i>Python molurus molurus</i>	Indian Rock Python	Pythonidae	PrM	R
12.	<i>Python molurus bivittatus</i>	Burmese Python	Pythonidae	PrM,M	UC

Table2 (Mildly Venomous Category)

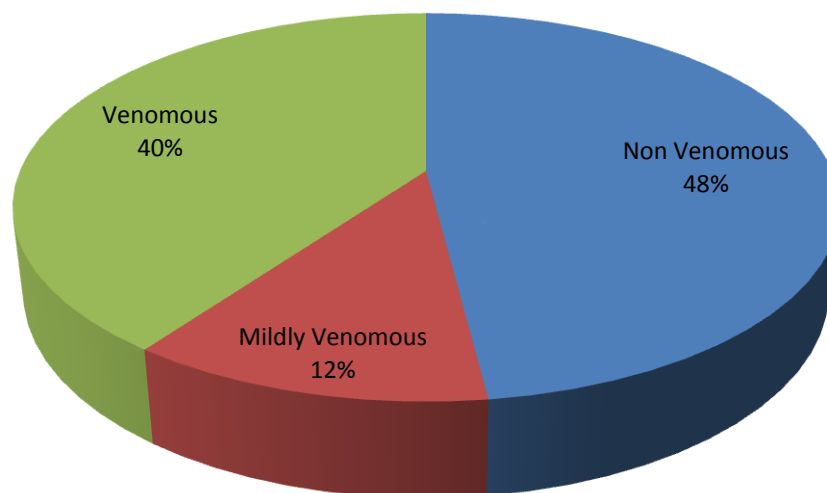
Sl. No.	Scientific Name	Common Name	Family	Occurance	Relative Abundance
1.	<i>Ahaetulla prasina</i>	Short Nosed Vine Snake	Colubridae	PrM,M	UC
2.	<i>Chrysopelae ornate</i>	Ornate Flying Snake	Colubridae	PrM	R
3.	<i>Enhydris enhydris</i>	Common Smooth Scaled Water Snake	Colubridae	PoM	R

Table3 (Venomous Category)

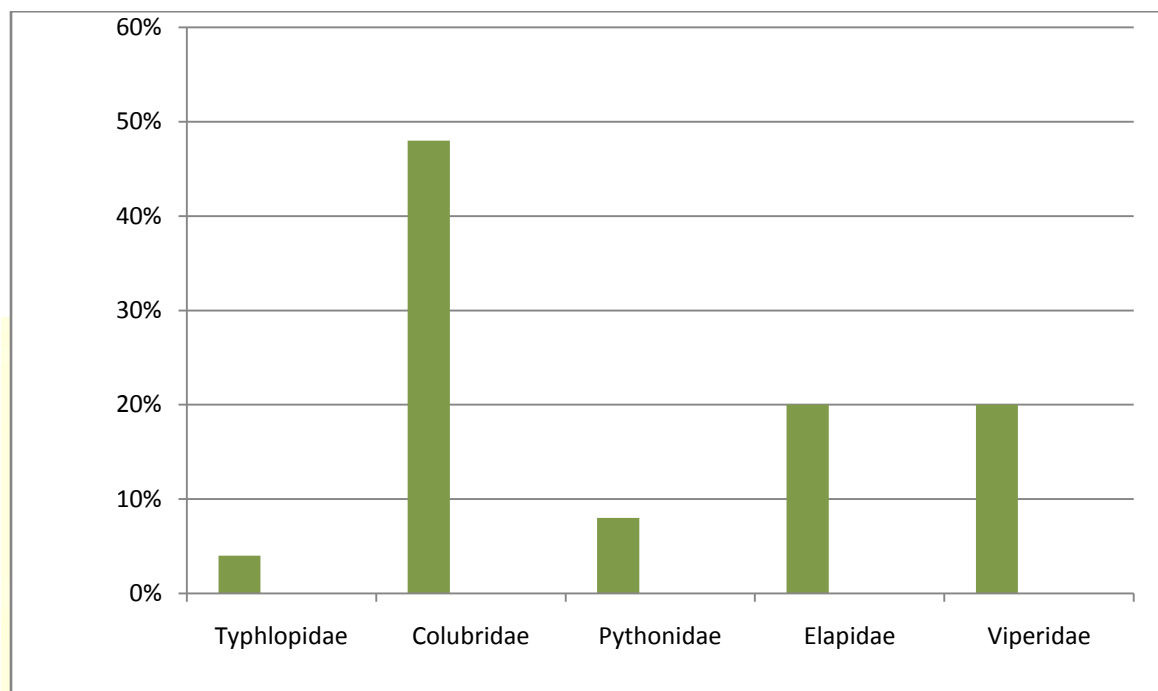
Sl. No.	Scientific Name	Common Name	Family	Occurance	Relative Abundance
1.	<i>Naja naja</i>	Spectacled Cobra/Common Cobra	Elapidae	PrM,M,PoM	C
2.	<i>Naja koouthia</i>	Monocled Cobra/Indian Cobra	Elapidae	PrM,M,PoM	UC
3.	<i>Ohiophagus Hannah</i>	King Cobra	Elapidae	PrM,M	R
4.	<i>Bungarus caeruleus</i>	Common Krait	Elapidae	PrM,M,PoM	C
5.	<i>Bungarus fasciatus</i>	Banded Krait	Elapidae	PrM,M,PoM	R
6.	<i>Dabioa russelii</i>	Russell's Viper	Viperidae	PrM	R
7.	<i>Gloydius himalayans</i>	Himalayan Pit Viper	Viperidae	PrM,M	R
8.	<i>Trimeresurus</i>	Pope's Pit Viper	Viperidae	PrM	R

	<i>popeiorum</i> <i>popeiorum</i>				
9.	<i>Trimeresurus</i> <i>erythrurus</i>	Spot Tailed Pit Viper	Viperidae	PrM,M	R
10.	<i>Ovophis monticola</i>	Mountain Pit Viper	Viperidae	PrM	R

Category wise pie chart of snake species



The Pie Chart Shows The Category wise Snake Species

Family Wise Bar Diagram :**Discussion:**

North Bengal is also famous for its forests resource since immemorial time span. The riverine Forest Ecosystem is the main feature of this area. Flood plain grassland interspersed with marshy and swampy land and adjoining riverine forests are the ideal habitat for most of the snake species.

According to Romulus Whitaker (2004), out of 275 species, 43 species have been found as venomous throughout the whole country while approximately 232 species have been found as non venomous. Out of 105 snake species found In West Bengal approximately 18 species are identified as venomous and 87 species are considered as non venomous. As per our assumption at least 35 species of snakes are being found in North Bengal.

From the above observation and results it seems that at least 25 species, in which 12 non venomous, 3 mildly venomous and 10 venomous are identified respectively at this region. Such type of variation demands the high diversity of Ophiofauna. This high concentration of reptiles clearly indicates their richness at this zone. Summer (April to May) and Monsoon (June to August) are the main season in which maximum number of snake species are seen in and around Jalpaiguri. In spite of environmental degradation, this region is still favorable for them. In fact,

the reappearance of some rare species like *Enhydris enhydris*, *Daboia russelii*, *Oligodon arnensis*, *Python molurus molurus*, *Ophiphagus hannah* and *Elaschitodon westermanni* are very much significant from the ecological point of view.

Elaschitodon westermanni: Indian Egg Eater is one of the rarest snake (IUCN Red Listed) is occasionally seen here which is almost extinct in the other part of country. In fact, a considerable record had been furnished by Boulanger (1890). Even renowned Ophiologist Mr. Romulus Whitaker could not be able to record it in recent time. However, we are trying our level best to record it with proper photographic documentation.

As per our findings it has been revealed that most of these species are either extinct or towards extinction from most of its habitat of this country. More than 30 death case have been reported per annum in recent past time at this area which is very alarming situation. Awareness campaigning among the common people by several voluntary organization or NGOs is found very successful effort. This is why all these species are still survives here in a considerable population.

Abbreviated Forms Used:

PrM= Pre Monsoon

M= Monsoon

Pom=Post Monsoon

C=Common

UC=Uncommon

R=Rare

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