

STUDIES ON BIODIVERSITY OF SNAKE FAUNA IN PURULIA DISTRICT WITH SPECIAL REFERENCE TO GARH PANCHOKOT AND ITS SURROUNDINGS

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Abstracts: The word " SNAKE!" evokes the terrible blame of horror, darkness and death, but the reality is that it is a beautiful elongated legless reptile which helps us in many ways and maintain the ecosystem by well manner. There are altogether more than 2700 species of snakes are found in all over the world and out of which only 300 species are poisonous that's means very few species are poisonous. India is a home of many species of snakes that may be 280 to 290 and only 69 are poisonous. Several works has been done on snake fauna of Purulia district but the search is incomplete in Garpanchakot and its surroundings. There are around eleven different types of snakes were found in Purulia district especially Garpanchakot and its surrounding area. Out of which approx 3 are venomous, two are semi-venomous and 6 are non-venomous.

Key words: Snake, venomous, non- venomous, semi- venomous, Gar Panchakot, reptiles

INTRODUCTION:

The word " SNAKE!" evokes the terrible blame of horror, darkness and death, but the reality is that it is a beautiful elongated legless reptile which helps us in many ways and maintain the ecosystem by well manner. The snakes are worldwide in distribution. They can be found in the top most Himalayan range to sea level. The snake biodiversity can be explained in terms of shape, colour, length and other features. The snakes which are distributed on this earth show cryptic behavior and are not easily seen because they are well camouflaged by their coloration for an example common vine snake are look like a green branch of a tree, the brown vine snake used to hide in the dry leaves etc. There are altogether more than 2700 species of snakes are found in all over the world and out of which only 300 species are poisonous that's means very few species are poisonous. India is a home of many species of snakes that may be 280 to 290 and only 69 are poisonous. Several works has been done on snake fauna of Purulia district but the search is incomplete in Garpanchakot and its surroundings. The western most district of West Bengal (W.B) such as Purulia is the packed with the rich biodiversity and most of this till

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undiscovered. Most of the area of this district is plateaus and rocky. The cancer line pass through the Purulia near the Adra region so it show the difference of temperature, in summer the temperature is very high which may be increase the power of creation of rich biodiversity. Like the entire organism the snake is one of them which widely distributed and many species of snake are found in most regions. Venomous, non-venomous and semi venomous snake are present here and almost distributed. The snakes which are found in Purulia district especially Garpanchakot Hill and its surroundings are can be categorized under three main group's non-poisonous, semi poisonous and poisonous. The biodiversity survey of snake's populations of Garpanchakot Hill and its surroundings revealed that eleven different types of snakes were found and falls under following groups.

Non-poisonous snakes

1. Brahminy worm snake [*Ramphotyphlops* sp.]
2. Indian Rock Python [*Python* sp.]
3. Indian Rat Snake [*Ptyas* sp.]
4. Striped Keel back [*Amphiesma* sp.]
5. Checkered Keel back water snake [*Xenochrophis* sp.]
6. Earth Boa/Red Sand Boa [*Eryx* sp.]

Semi- Poisonous snakes

7. Common vine snake [*Ahaetulla* sp.]
8. Ornate flying snake [*Chrysopelea* sp.]

Poisonous snakes

9. Indian cobra / spectacled cobra [*Naja* sp.]
10. Common krait [*Bungarus* sp.]
11. Russell's Viper [*Daboia* sp.]

Result and discussions:

CHARACTERISTICS OF THE SNAKES

1. Brahmin Worm Snake:[*Ramphotyphlops* sp.]

Local people called it Poiyen, Tela Saanp, Telingi Saanp.

Average Length: 10 to 12.5cm

Maximum length: 23cm

Identification: Reddish brown or brown with a lighter underside. Cylindrical body with Shiny scales. It is the smallest snake in India.

Distribution: All over the district.

Habitat: Forest, rocky area, under the soil

Food: Ant worm, insect eggs etc.

Characteristics: It look like an earth worm and lived deep inside the soft soil. It is seen especially after heavy rain

2. Indian Rock Python: [*Python* sp.]

Local people called it Ajgar or Moyal.

Average length: 760cm (24ft 11in)



Indian Rock Python: [*Python* sp.]

Identification: The snake is heavily built and has dark and brown blotches on its back. The body colour is a mixture of grey or off white or pale brown. Under side is usually pale yellow. The scales are smooth and shiny and its eyes have vertical pupils.

Distribution: The rocky area like Ayodha hill, Jaychandi Pahar, Panchakot Pahar, sometime in the small rocky hill also.

Habitat: Rocky area near water bodies and mushy area.

Food: Small mammals like rat and bandicoots to deer, monkey, dogs etc. Local people say that sometimes it enters the house and kills goats, hens and ducks at night.

Breeding behavior: Mating takes place in the month of January to March and two months later the female lays around 20-80 eggs and these eggs are incubated by the female snakes, incubation period is near about 90-100 days and at that time the snake coils its body around the eggs.

Characteristic: Mainly nocturnal and can stay under water for up to 30 minutes. They kill their prey by coiling their entire body around them and catch them tightly until the prey is not dead, then swallow the prey whole head first.

3. Indian Rat Snake: [*Ptyas* sp.]

Local Name – Dhanaraas

Average Length - 6 ft to 6.5 ft

Maximum Length - 11 to 12 ft



Indian Rat Snake: [*Ptyas* sp.]

Identification: The body colour can be many types such as yellowish, brown, moss green, creamy or black with big round eyes. The tail is very long.

Distribution: All over the district.

Habitat: They are found in all types of habitats like urban area, forest coverage, rural area etc. It found in ant hills or rat burrows.

Food: Rat, frog, toad, squirrels, small birds even some small snakes etc.

Breeding behavior: The mating season may be before the summer.

Characteristic: It is diurnal and known to climb trees as well as swim. The snake can move very fast and at the time of fast running they make sound. When the snake disturbed by some one it make a sound like 'hiss'

4. Striped Keel back: [*Amphiesma* sp.]

Local name – Helay

Average length – 1ft to 1.5ft

Maximum length – 2ft to 2.5ft

Identification: Brown or light brown with yellow stripes laterally both sides of body. The body of the snake is cylindrical and tail is long. Females are longer than male.

Distribution: All over the district.

Habitat: Damp place, paddy fields, grass land.

Food: Frog, lizard etc.

Breeding behavior: Many males are seen with female during breeding season.

Characteristic: Diurnal in nature.

5. Checkered Keel back water snake [*Xenochrophis* sp.]

Local people named its as Dhoriya or Dhora or Pani Dhora

Average length – 2 to 2.5ft

Maximum length – 4ft to 5ft

Identification: Greenish black with yellow dark scales with long large eyes with round pupil.

Distribution: All over the district.

Habitat: Pond, river and any kind of water bodies.

Food: Fish, Frog etc.

Breeding behavior: Females lay eggs in December.

Characteristic: Diurnal and nocturnal also. It's very aggressive and capable for painful bite.

6. Earth Boa/ Red sand Boa: [*Eryx* sp.]

Local name of this snake is "DO Mukho Saanp".

Average Length – 2ft to 2.5ft

Maximum length – 3ft



Earth Boa/ Red sand Boa: [*Eryx* sp.]

Identification: Thick red body with dark red or brown colouration same as soil. Another unique feature is that its mouth and its tail look like same to each other. And also present small eyes

Distribution: Mainly found rocky area, forest, dry scrubland area.

Food: Small vertebrates like rat, bird, gecko etc.

Breeding behavior: The female boa is ovoviviparous and gives birth directly to young. They breed in the rainy season when the ground gets water logged and they come out mate each other.

Characteristic: Mainly nocturnal in nature as its name indicates that it's stay in soft soil and mainly our facing to the ground is rainy season.

7. Common vine snake [*Chrysopelea* sp.]

Local name – Lao doga or lau dogi

Average length – 3ft to 3.5ft

Maximum length – 6ft to 6.5ft



Common vine snake [*Chrysopelea* sp.]

Identification: Green long thin body looking like vine. The pointed elongated head bears large golden yellow eyes. The colour varies from light green to dark green. They show the mimicry behavior.

Distribution: Approx all over the district. Mainly found in southern side of Purulia.

Habitat: Bushes and trees in forest.

Food: Frog, geckos etc.

Breeding behavior: Female gives birth to young.

Characteristic: Diurnal in natural. When it got disturb it enlarges its fore body. It is semi –venomous snake when bite the person feel the pain very badly but do not die. Its colour helps to camouflage with surrounding buses.

8. Ornate flying snake [*Chrysopelea* sp.]

Local people called it kaal nagini or kaal nagin

Average length – 3 to 3.5 ft

Maximum length – 3.5 to 5ft



Ornate flying snake [*Chrysopelea* sp.]

Identification: Light green or yellowish green body with black band and red spot along its length. The flattened black head bears large black eyes.

Distribution: Hill forest like Panchakot , Ayodha hill.

Habitat: The snake is mostly found in trees.

Food: Small birds, Frogs , geckos etc.

Breeding behavior: Their mating season mainly in winter.

Characteristic: Active in day time and it can quick to escape. Mainly arboreal in nature and when they feel danger they used to flatten their body glide away to escape.

9. Spectacled Cobra / Indian Cobra: [*Naja sp.*]

Local people called it Nag or gokhara or Gokharo

Average length: 3 ft to 3.5ft

Maximum length: 6 to 7ft



Spectacled Cobra / Indian Cobra: [*Naja sp.*]

Identification: It present with the colour of brown, yellow, white and black. The spectacle mark is visible when it spreads the hood. It has dark eyes having round pupils.

Distribution: All over the district.

Habitat: forest, grass land, urban areas, around the villages. It also resides in ant hills and old houses.

Food: Toads, frogs, mice, small bird, occasionally small snakes

Breeding behavior: 10 to 15 egg are laid between may be April to May.

Characteristic: It is both diurnal as well as nocturnal. When disturbed, it raises itself off the ground and spreads its head, hissing noisily. Unlike other snakes, the cobras have binocular vision due to the pointed head.

10. Common krait: [*Bungarus sp.*]

Local people called it Kalaj & Chiti saanp

Average length – 3 to 3.5 ft

Maximum length – 3.5 to 5ft



Common krait: [*Bungarus* sp.]

Identification: Slender tube like body with bluish black to dark brown body. Pointed white band across the body are seen. The scales are smooth and glossy. The head is flattened with black colour and the lower side of the body is white.

Distribution: Found all over the district.

Habitat: Spotted in forest near human habitation marshy as well as rocky area.

Food: Other snakes as well as other krait. It has been known to eat mice, frog, lizard etc.

Breeding behavior: The female lay eggs in summer season.

Characteristics: Nocturnal in nature. It mainly found in rat holes ant hills among rock etc. during the day. It is one of the most venomous snakes in India. Some time present in the bed at the night heat and directly contact with human, if they bite any person they can not fill its bitten pain.

11. Russell's Viper [*Daboia* sp.]

Local name – Chandrabora

Average length – 3ft to 3.5ft

Maximum length – 3.5 to 5ft



Russell's viper [*Daboia* sp.]

Identification: Flat triangular head, short body with a thin and short tails. Body colour is brown with diamond shaped black spot all over the body. Pupils are vertices. The body of the snake is rough.

Distribution: Found only Kashipur block and some off bit at Panchakot hills.

Habitat: Urban and rural human habitation, forest, rocky areas, roads and hills and rat holes.

Food: Rat and small mammals.

Breeding Behavior: According to the local people, the snake give birth young ones on before summer or summer season.

Characteristic: Nocturnal in nature, but some time seen in day light. When it feels danger they coil it and make very loud hissing noise like pressure cookers whistle.

CONCLUSION

Purulia is plateaus and rocky area which covered by many jungle and tropic of cancer passed through the district, so deferent type of climates found near and far the line which is important cause for the biodiversity of Purulia. There are around eleven different types of snakes were found in Purulia district especially Garpanchakot and its surrounding area. Out of which approx 3 are venomous, two are semi-venomous and 6 are non-venomous. Our field study expressed that the **Krites** are the most poisonous snake in Purulia district. Indian **Rock python** is the longest snake of Purulia it may be 24 to 25 ft maximum in length. In other hand **Brahminy** worm snake is the shortest snake in district it may be around 23cm minimum in length, Russell's viper is very rear in Purulia district but some time it found only in Kashipur region and in the Panchakot hill.

References:

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