



## First Time Sighted Two Snake Species from Todgarh-Raoli Wildlife Sanctuary, Rajasthan, India

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**ABSTRACT:** This paper deals with first time sighting of two new snake species *Indotyphlops braminus* and *Boiga trigonata* which are addition to the reptilian diversity of this sanctuary. Among these, Family: Typhlopidae is family addition and Genus: Boiga is generic addition and first time records for reptilian diversity of Todgarh-Raoli wildlife sanctuary.

**Keywords:** Reptiles, Snake, Family, Genus, Addition, Todgarh.

### I. INTRODUCTION

India has a wide range of climatic variation which includes regions having freezing temperature to those with dry and hot climate or moist and hot climate. On the western side the dry climate with very little rainfall has given rise to desert with very little vegetation and scattered shrubs. This broad range of agro-climatic zones has resulted in the development of different animals and plants according to the demand of the regional climate and topographical arrangement [9]. Biological diversity intrinsically pedals the functioning and stabilization of an ecosystem [6] and species are the backbone of biology [10].

Among the creatures on Earth, reptiles represent a major component of vertebrate species and the predominant group in many rainforest, arid and mountain habitats with a species richness pattern mainly influenced by temperature on a global scale. Whereas snakes surely are the most widely feared and avoided. In India, particularly, they should be among the most widely respected and appreciated, because they do essential job of rodent control; so that the government introduced a ban on trade in snake skins [7, 9]. There are about 11,050 species of reptiles in world, out of which 3,789 species are of snakes [8].

India is known to contribute 518 species of reptiles and 279 species of snakes [1]. Most of species are nonpoisonous. Their bites, apart from causing panic reaction and local injury, do not kill or even harm the patient, but 13 known species among them are poisonous [9]. Out of these, 30 species of snakes out of 81 species of reptiles were reported from Rajasthan state, in which 26 are nonpoisonous and 4 species, namely common cobra (*Naja naja*), common krait (*Bungarus caeruleus*), Russell's viper (*Dabiola*

*russelii*) and saw-scaled viper (*Echis carinatus*) are highly venomous and believed to be responsible for most of the poisonous bites in Rajasthan [5]. In Todgarh-Raoli wildlife sanctuary, 19 reptiles and 11 snakes were listed by forest department, Rajasthan.

**Study Area:** This Sanctuary is situated between 73°40' to 74°10' east longitudes and 25°20' to 26°0' north latitudes and covers an area of about 495.27 km<sup>2</sup>. This sanctuary covers an area under three revenue districts viz., Rajsamand, Pali and Ajmer. It is one of the protected areas expressing full range of habitat of Aravalli ecosystem which has exceptionally rich biodiversity i.e. Dhok, Salar, Aak, Palas, Safeda, Ker, Kumat, Kala siris, Neem, Adusa, etc.

The sanctuary has number of historical and religious places like Todgarh, Mangadjika Mahal, Dudhaleshwar Mahadev, Dhadeshwar Mahadeo, Goramjika Mandir, VayadBherujika Mandir, Kajalwas Dhuni etc. These sacred places are playing a vital role in conservation of the biodiversity of the sanctuary. Run off of Todgarh catchment is drained out by several 'nallahs' which ultimately form tributaries to drain in Dholapani, Sukdi, Jogmandi, Digore, Siryari, Rania rivers. Nine dams viz., Phulad, Gajnal, Rodawas, Jogmandi, Hansiyawas, Hichliawas, Digore, Siryari, Rania have been constructed on these rivers, originating from Todgarh hills.

### II. MATERIAL AND METHODS

The present study is to explore the diversity and documentation of biodiversity of the Todgarh-Raoli wildlife sanctuary. During the survey of the sanctuary for their biodiversity study, we observed two different snake species. Both species have been identified by using various published literature and field guides [1, 2,

3, 7, 8, 9, 11]. These are identified as *Indotyphlops braminus* and *Boiga trigonata*.

### III. RESULTS AND DISCUSSION

During the survey of Todgarh-Raoli wildlife sanctuary for their biodiversity study, we observed two unknown snake species. After critical examination we could identify as *Boiga trigonata* and *Indotyphlops braminus*. Current nomenclature citation, common name, vernacular name, diagnostic features, morphology, distribution, along with conservation status and habit-habitat of each snake species are provided here in alphabetical order.

**(1) *Boiga trigonata* (Schneider, 1802).** Common name: Cat eyed snake, Common cat snake, Indian cat snake, Indian gamma snake.

Vernacular name: Chittisamp, Billisamp.

**Diagnostic feature:** Head triangular, broader than neck; eyes large with vertical pupil; tail long, thin and pointed tipped. “Y” shaped light colored mark on head, dorsal side brown marked with black and white irregular markings (Fig. 1).



Fig. 1.

**Body measures:** 60cm-1.25mt., male shorter than female.

Distribution: Bangladesh, Nepal, Sri Lanka and India.

India: Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Punjab, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal and Rajasthan.

Rajasthan: Jaipur, Jaisalmer and Jodhpur [2].

Habitat: Bushes, scrub, tree and barks, under stone piles and cracks.

Food and feeding: Feeds on amphibians, reptiles, small birds and rodents, Uses its mild venom for paralyzing the prey.

**Conservation status:** IUCN; Least Concern.

**Location with GPS:** INDIA: Rajasthan, Todgarh-Raoli wildlife sanctuary, Jojawar Range, 8<sup>th</sup> March, 2019, 25°25'34.0"N, 73°43'55.2"E. (Fig. 2).

**(2) *Indotyphlops braminus* (Daudin, 1803).** Common name: Common blind snake, Brahminy blind snake, Brahminy worm snake.

Vernacular name: Andhasamp, Keetsamp.

**Diagnostic features:** Small, worm like and cylindrical, Coloration; Glossy black and reddish brown (Fig. 1).

**Body measures:** 13-23cm Adult, 3-3.5cm Juvenile.

Distribution: Afghanistan, America, Australia, Bangladesh, Bhutan, Africa, China, Indonesia, Japan, Myanmar, Nepal, Pakistan, Sri Lanka and India.

India: Delhi, Gujarat, Himachal Pradesh, Karnataka, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal and Rajasthan.

Rajasthan: Ajmer, Bharatpur (Keoladeo National Park), Bikaner, Jaisalmer, Jodhpur and Mount Abu [2].

Habitat: Lives under ground in ant holes and termite mounds, around roots, decayed wood logs and leaves, stones and humus in forests.

Food and feeding: Eggs, larvae and pupae of ants and termites and other insects [4].

**Conservation status:** IUCN; Not Evaluated.

**Location with GPS:** INDIA: Rajasthan, Todgarh-Raoli wildlife sanctuary, Raoli Range, 2<sup>nd</sup> March, 2019, 25°49'31.62"N, 73°59'22.22"E (Fig. 2).

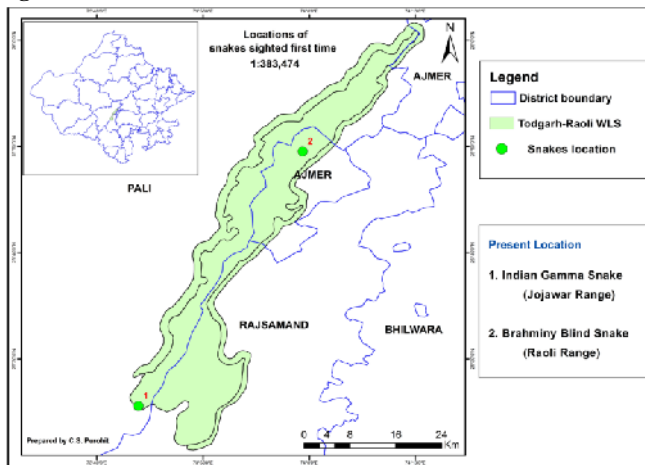


Fig. 2.

## CONCLUSION

During the survey of Todgarh-Raoli wildlife sanctuary, we have sighted two new snake species *Indotyphlops braminus* and *Boiga trigonata* which are addition to the reptilian diversity of this sanctuary. Among these, Family: Typhlopidae is first time reported and family addition for reptilian diversity of Todgarh-Raoli wildlife sanctuary and one generic addition Genus: Boiga and first record for reptilian diversity of this sanctuary.

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