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New record of the short-nosed vine snake (*Ahaetulla prasina*) from the Similipal Tiger Reserve, Odisha: A range extension from North Eastern part of India to Similipal landscape

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Abstract

The present research reports the occurrence of new state record and range extension of Short-nosed Vine snake (*Ahaetulla prasina*) as new state distribution recorded from the state of Odisha, India. The Short-nosed Vine snake is presented as a new record from Similipal tiger reserve based on photographic and morphological evidences which consists of images and body measurement datas.

Keywords: New state record, range extension, short-nosed vine, Similipal Tiger Reserve, Odisha

Introduction

The Similipal Tiger Reserve extends between 21°16'06.7"–22°19'57.8" N and 86°04'35.1"–86°37'09.5" E. It is situated within the boundary of the Mayurbhanj district at the northern-most part of Odisha state. The Similipal Tiger Reserve, spreading over 2750 km² area is a compact mass of unique natural forest that influences the climatic regime whole of Odisha, West Bengal, Jharkhand and other areas in the eastern and northern parts of India (Chowdhury 2006; Schliep & Stoll-Kleemann 2010) [1, 2]. So, the Similipal Tiger Reserve has great potential as it has diverse types of flora and supports a very high density and biomass. It is the home to 1076 species of plants, 55 species of mammals, 304 species of birds, 60 species of reptiles, 21 species of amphibians, 38 species of fishes and 164 species of butterflies. The herpetofauna of Similipal comprises 21 species of frogs, and 60 species of reptiles, comprising 1 species of crocodile, 6 species of turtles, 20 species of lizards and 33 species of snakes (Dutta *et al.* 2009) [3].

The genus *Ahaetulla*, belongs to the Colubrids family which is the largest snake family, approximately 2060 species. Globally, there are 18 accepted species in the genus *Ahaetulla* (Uetz *et al.* 2022) [4]. 11 species have been recognized and distributed in India (Mallik *et al.* 2020) [5]. From them the Short-nosed Vine snake (*Ahaetulla prasine*) is distributed in Bhutan, Myanmar, Thailand, Vietnam, Malaysia, China, Bangladesh and wide range of north eastern India as Sikkim, Assam, Arunachal Pradesh, Mizoram etc. (Uetz *et al.* 2022) [4], (Map-1). They are fully arboreal, diurnal, long and extremely slender snake, head large, elongated and tapering snout, with a groove running along it, eyes are large with a horizontal pupil, tail is long with a prehensile tip, dorsal body are smooth, anal is divided into pairs (Ahmed *et al.* 2009; Das 2012) [6, 8]. Adult colouration varies from light brown to dull yellow-green, often a startling fluorescent green and juveniles looks completely brown (Boie 1827) [7]. These vines are found in forests, and associated with shrubs and saplings. They are ovoviviparous, producing 4-10 neonates, the top of the body is usually green, but may also be brown, yellow, dark grey or golden yellow, speckled with black, yellow stripe runs along lower body, belly is light green or dark grey (Das 2012) [8].

Materials and Methods

During our field survey on 10.04.2024 we found two vine snakes inside the core area of Similipal Tiger Reserve at GPS locations (86°24'1.901"E, 21°37'36.84"N) and (86°20'32.6"E, 21°39'57.4"N) from them first one was stretched out on a tree branch approximately 3 m above from the ground and the second juvenile one was basking on the tree branch, both the locations

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are attached below on the map (Map-2). We took photographs with Nikon D5300 of the vines, and did the morphometric study and released the snakes back. Details of photographs and morphometric data are attached below in (Table-1 & Photo-1,2).

Results and Discussion

Morphology: Body is extremely slender, thin and long. Long and pointed snout. The head is somewhat triangular in shape, broader in the neck region and taper towards the snout. Oval shaped eyes with horizontal pupils. Tail is very long and thin with pointed tip.

Coloration: Adults looks typically cryptic green colour, sub-adults looks brown in colour. Regular black - bluish and white inter-scale patterns present in oblique manner from neck to much of mid body. Belly lighter than dorsal with yellow or white lines.

Scalation: Scales smooth, long and obliquely arranged. Internasal contacts the labial or lip scales. Anal scale paired. All the photos and morphological datas confirm that the species is Short-nosed Vine snake (*Ahaetulla prasina*) as new state record from the state of Odisha, India. The present research reports the occurrence of new state record and the species range extension.

Table 1: Detail morphological data of *Ahaetulla prasina* from Similipal Tiger Reserve

Detail morphological data of <i>Ahaetulla prasina</i> from Similipal Tiger Reserve	1. Adult	2. Juvenile
Head Length	26.4 mm	11.86 mm
Head Width	9.4 mm	7.1 mm
Head Diameter	7.5 mm	6.4 mm
Eye diameter	4.5 mm	3.33 mm
Nose diameter	1.92 mm	1.8 mm
Snout to Nose	3.4 mm	1.4 mm
Snout to Eye	10.8 mm	5.56 mm
Nose to Eye	8.1 mm	3.48 mm
Inter-nasal Space	3.44 mm	1.38 mm
Inter-orbital Space	7.55 mm	3.9 mm
Snout- Vent Length	1142 mm	372 mm
Tail Length	427 mm	212 mm
Ventral Scales	205	200
Sub-Caudal Scales	181	188
Supralabials	9/9	9/9
Supralabials touching the Eye	4 to 6	4 to 6
Infralabials	9/9	9/9
Dorsal Scale Rows	15:15:13	15:15:13
Loral Scales	2	2
Pre-Ocular Scale	1	1
Post-Ocular Scale	2	2
Temporal Scale	2 + 2	2 + 2
Anal scale	Paired	Paired



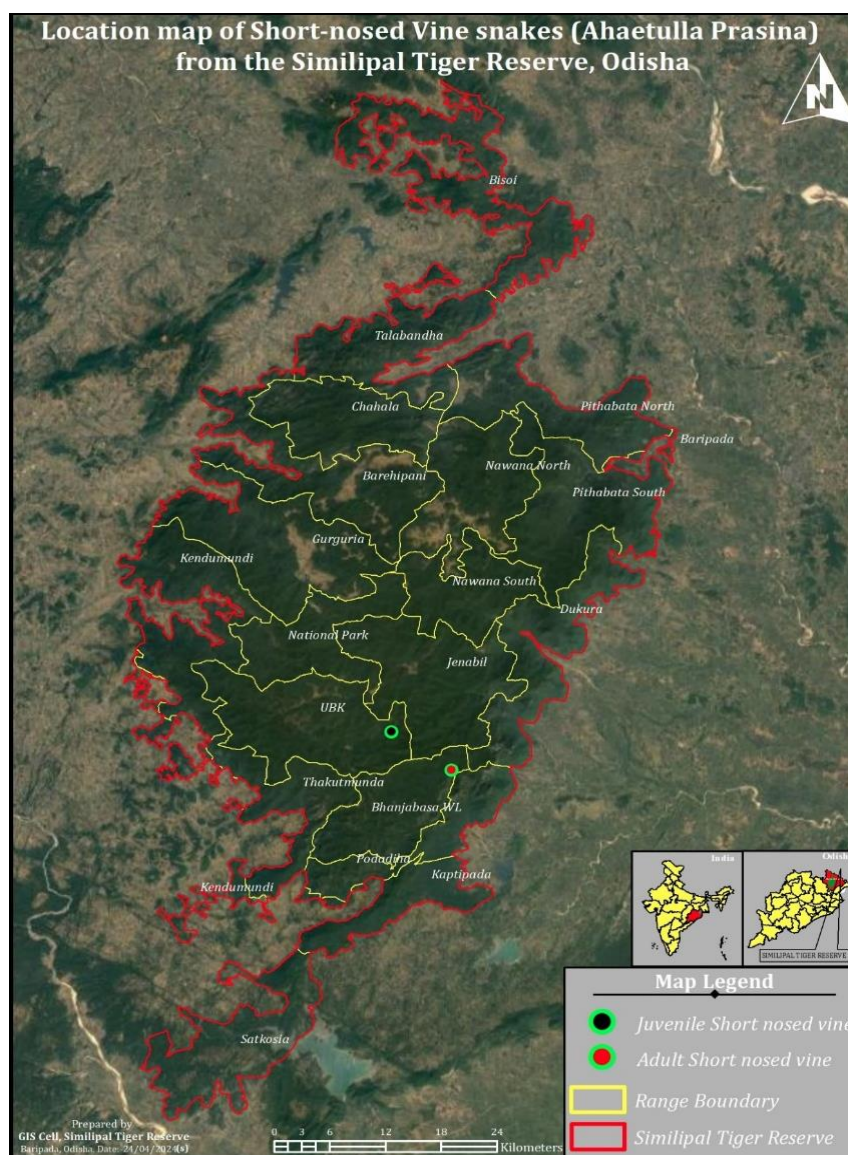
Fig 1: Adult short nosed vine



Fig 2: Juvenile short nosed vine



Map 1: Distribution of short nosed vine snake in north east India and neighbouring countries



Map 2: Location map of short- nosed vine snake (*Ahaetulla prasina*) from the Similipal Tiger reserve, Odisha

Conclusions

With analysis of all the data and reviewing of literatures we came to a conclusion that they are Short nosed Vine snakes one was adult and second one was juvenile. So herein we present it as a new record of the arboreal colubrid Short-nosed Vine snake (*Ahaetulla prasina*) from the Similipal Tiger Reserve, as the species is the first report to Odisha. Previous report says the species is confined to the north eastern areas of India. So as finding these species in Odisha shows its range extension from north east states to Odisha's part.

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