

## Rediscovery of Graceful Racer *Platyceps gracilis* Günther 1862 (Reptilia: Squamata: Colubridae) After Ninety Years in Central India

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Received date: Sep 11, 2017; Accepted date: Oct 17, 2017; Published date: Oct 24, 2017

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### Abstract

*Platyceps gracilis* occurs in dry and arid parts of western India from Maharashtra to Rajasthan and western parts of Madhya Pradesh. In this paper, I report range extension of *Platyceps gracilis* based on temporarily collected specimen from Melghat Tiger Reserve. Ninety years since the last record, there is been no further report of this species from Central India. I recently sighted two additional specimens of this poorly known species from Vidharbha region of Maharashtra state, India.

**Keywords:** *Platyceps gracilis*, Range extension; Melghat tiger reserve; Amravati district

### Abbreviations

BMNH: British Museum of Natural History; London; BNHS: Bombay Natural History Society; Mumbai; India; SVL: Snout to Vent Length; TL: Tail-length; HL: Head-length; EYED: Horizontal Diameter of the Eye; EYEN: Distance from Center of the Eye to Posterior Border of the Nostril; WSNT: Width of the Snout; VENT: Number of Ventrals; SUBC: Number of Subcaudals; DOR1: Number of Dorsal Scale Rows at 1 Head-length Behind the Head; DOR2: Number of Dorsal Scale Rows at the Position of the Middle Ventral; DOR3: Number of Dorsal Scale Rows at 1 Head-length Before the Tail; TEMP: Number of Temporals (L+R); SL1: Number of Supralabials (L+R); SL2: Number of Supralabials Touching the Eyes (L+R); INFR: Number of Infralabials (L+R); SUBL: Number of Infralabials Touched by the First Sublabial (L+R); GUL: Number of Gulars; LOR: Number of Loreals (L+R); POC: Number of Postoculars (L+R); PSUB: Pre-subocular; MSH: Maharashtra State Highway.

### Introduction

In Indian Subcontinent, the genus *Platyceps* represents three species *Platyceps bholanathi* [1] *Platyceps gracilis* [2] and *Platyceps ventromaculatus* [3]. These are rare species native to India among which *P. gracilis* [4] and *P. bholanathi* [5] are endemic to India [6].

The Graceful Racer, *P. gracilis*, is one of the most attractive and rare snake, native to India [7]. According to IUCN criteria, this species formerly was categorized at “Lower Risk, Near Threatened” [8] and now considered at “Data Deficient” [6]. Almost nothing is known about natural history and behavior [9]. *P. gracilis* was originally described by Albert Günther [2] as *Zamenis gracilis* from the collection of the BMNH, later it was transferred to genus *Coluber* by Smith [10], and this allocation was followed by subsequent authors [11-13]. The present taxonomic position of this species is revised and according to Wallach et al. [14] it is now placed under genus *Platyceps* [15]. This species is comparatively rare that has so far been known from only a very few localities representing just four Indian states viz. Gujarat, Madhya Pradesh, Maharashtra and Rajasthan [4,7,9]. All

these localities are situated in the Deccan and Northern Western Ghat [7].

### Material and Methods

A temporarily hand collected live specimen of unidentified snake was rescued from the vicinity of Chikhaldara, Melghat Tiger Reserve (Geographical location being 21.404426°N, 77.361394°E) by Vikram Surpatne.



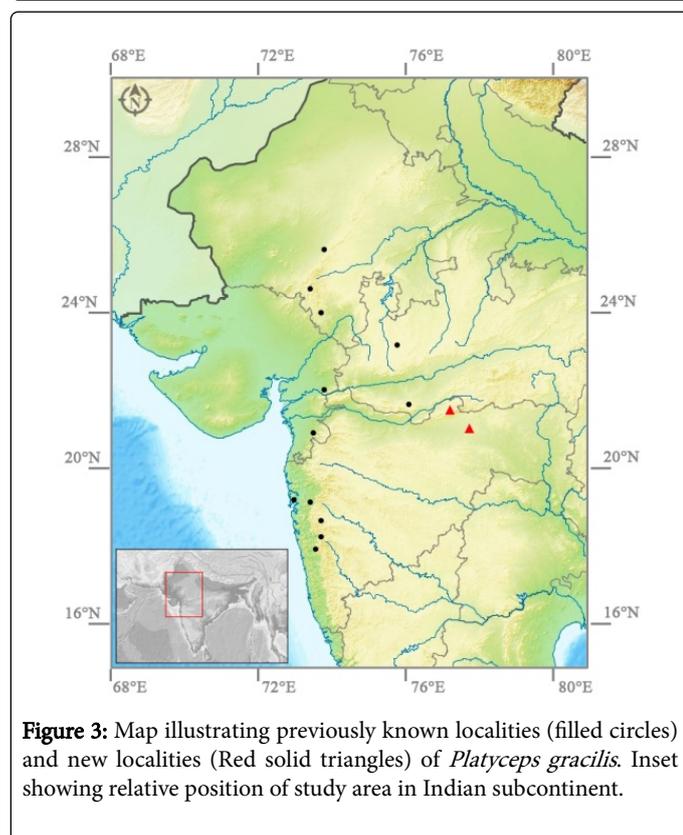
**Figure 1a:** Rediscovered *Platyceps gracilis* from Melghat Tiger Reserve. (Photo by-Khan Ashaharraza).



**Figure 1b:** Dorsal and Lateral head scales of *Platyceps gracilis* (Photo by- Khan Ashaharraza).



**Figure 2:** Habitat view of *Platyceps gracilis* at Melghat Tiger Reserve (Photo by- Khan Ashaharraza).



**Figure 3:** Map illustrating previously known localities (filled circles) and new localities (Red solid triangles) of *Platyceps gracilis*. Inset showing relative position of study area in Indian subcontinent.

I was called for identification and further examination. I photographed the snake, scalation was done (Table 1) that matched with the data of Smith [10] and the snake was identified as *Platyceps gracilis* (Figure 1a-b). Soon after taking meristic data, specimen was released to its respective habitat of finding among the forest cover of Chikhaldara (Figure 2). Taken data compared with museum material series from the collection of Bombay Natural History Society (BNHS 547-549). Body proportions and scalation was recorded for examined specimens, Eye-diameter and distance eye-nostril were measured with a dial caliper to the nearest 0.01 mm. These measurements were made on the left and right side and were subsequently averaged. Snout-vent length and tail length was measured by marking the length on a piece

of string and subsequently measuring the position of the mark to the nearest 0.5 cm.

Characters Morphometric	
SVL	568
TL	232
HL	19
EYED	3
EYEN	7
WSNT	
Lepidosis	
VENT	218
SUBC	122
DOR1	21
DOR2	21
DOR3	15
TEMP	2+2/2+2
SL1	9/9
SL2	5 <sup>th</sup> & 6 <sup>th</sup>
INFR	9/9
GUL	
LOR	1/1
POC	2/2
PRE	1/1
PSUB	1/1

**Table 1:** List of morphometric and scalation of temporary collected *Platyceps gracilis*. All morphometrics in millimeters.

Snout-vent length was measured to the posterior margin of the anal plate. The number of ventrals were counted following Dowling [15,16]. Subcaudals were counted on one side, the terminal scute was excluded. All these measurements were taken using noninvasive method. Specimen was photographed by using Canon 7D+Canon 100 mm. Whilst, habitat shot was taken by Canon Powershot SX50.

## Results

This species has been previously recorded only from a single locality in Central India [17]. Recently collected specimen of *Platyceps gracilis* from Chikhaldara, Amravati district, Maharashtra (21.404426°N, 77.361394°E) represents a new locality record and the eastern-most distributional record of this species. Present locality is about 168 km south-east of the earlier known locality Asirgarh, Madhya Pradesh [17]. One more specimen also sighted at Gawilghur Fort (Now, Gawilgarh) and another was rescued at Daabha (20.832669°N, 77.727141°E), Amravati district.

The only report of Snakes in Amravati District was published by Nande and Deshmukh [18], stated authors did not find *Platyceps gracilis* in their study area. Even recently published herpetofaunal checklist and research publications in Central India continues to mention the absence of this taxon [19-21]. No information exists about this species and its habitat is rapidly declining [6]. So, I recommend that independent study on its ecology and distribution needs to be undertaken. Prior to current publication, *Platyceps gracilis* was lastly seen in Central India in 1927 at Asirgarh, Madhya Pradesh [17].

## Discussion

*Platyceps gracilis* is one of the most poorly known snake species in India. The physical setting of Amravati district shows a contrast of immense dimensions and reveals a variety of landscapes influenced by relief, climate, vegetation and economic use by human. The variation in relief ranges from the pinnacles and high plateaus of Satpuda hills having height over 3600 ft. above sea level to the subdued basin of the Purna river with an average height of about 1,200 ft. above sea level. As per my preliminary observations, *Platyceps gracilis* appears to be unevenly distributed, thus studies related to its microhabitat preference will be essential for conservation of this species.

Locality of Daabha situated on MSH-6 near to Badnera Railway junction, fragmented and is increasingly degraded by human exploitation. Loss of habitat due to industrial development and over grazing are some of threats to this species. Being the only hill station in Vidarbha region, Chikhaldara host high tourism activities, vehicular traffic is in high number mostly post monsoon. Plateau of Chikhaldara is under degradation due to anthropogenic activities, conversion of forest land into tourist zones, newly plotted layouts and windmill farms may cause population declines.

Although, resighting of *Platyceps gracilis* highlights the uniqueness of this region. As this area has huge expanse of Satpuda hills and plateaus, many of these areas have been converted to plantations, agriculture or grazing lands, further reducing the potential habitat for this species. Chikhaldara and Daabha (Figure 3) are the only localities from where *Platyceps gracilis* is definitely known, require immediate protection and surveys in the region are needed to determine where else *Platyceps gracilis* occurs.

## Acknowledgement

I am thankful to Dinesh Tyagi (former Field Director, Melghat Tiger Reserve) for permitting needful study. Anil Khaire (Chairman, Indian Herpetological Society) provided valuable comments from which the manuscript is greatly benefitted. I thank Organization for Wildlife Studies (OWLS), Mahad, funding Small Research Grant for publication. I acknowledge Raju Vyas (Sayaji Baug Zoo, Vadodara) for literature help. At BNHS, I am also thankful to Rahul Khot and Priya Warekar for material study help and supporting this research. Also, Vaibhav Dalal and Ahsan Sheikh for assisting in photographic documentation and color development. I thank Kunal Salunkhe Ganesh Mehendale, Sawan Deshmukh, Shubham Umale, Ankit Sasane and Dhiraj Shinde for their logistic support in field survey.

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