



Open Access

Short Communication

**Record of *Ahaetulla nasuta* Var. *isabellinus* from Phansad Wildlife Sanctuary Raigad-Maharastra, India**

Nitin Walmiki<sup>1,2,3</sup>, Siddhesh Karangutkar<sup>1,2,3</sup>, Bhaskar Yengal<sup>1,3</sup>, Vishal wagh<sup>1</sup>,  
Amol Kumbhar<sup>2</sup>, Aniket Jadhav<sup>2</sup>, Asif khan<sup>1</sup>

<sup>1</sup>Eco Echo, D/85 Meghwadi, Dr. S.S. Rao Road, Lalbaug, Mumbai- 400012

<sup>2</sup>CON (Care of Nature) Veshvi, Uran, Raighad district, Maharashtra, India

<sup>3</sup>S.A.R.R.P, Gorai, Borivali, Maharashtra, India.

Corresponding author: nitinwalmiki007@gmail.com

**Abstract:**

Vine snake belongs to the genera *Oxybelis* (New world vine snake), *Thelotornis* (African vine snake) and *Ahaetulla* (Asian vine snake). *Ahaetulla* is tropical Asian genus of colubrid snakes comprising eight species and distributed through India, Southeast Asia, Philippines and East Indies. Western Ghats in Maharashtra is termed as Sahyadries and is one of the global bio-diversity hotspots (Myers et al, 2000). Northern western ghats extend across three states viz Gujarat, Maharashtra and Goa. Phansad Wildlife Sanctuary (PWLS) was once a shooting reserve of the ruler Janjira during Mughal regime. PWLS is an unique representative of coastal protected area, as it is the only coastal protected area in Sahyadries range of Maharashtra. Survey was done from May 2010 to June 2011 on Herpetofauna of PWLS. During this study period we sighted *Ahaetulla nasuta* VAR *isabellinus* only four times. Whereas *Ahaetulla nasuta* is abundant and *Ahaetulla pulverulanta* is uncommon species in PWLS.

**1.0 Introduction:**

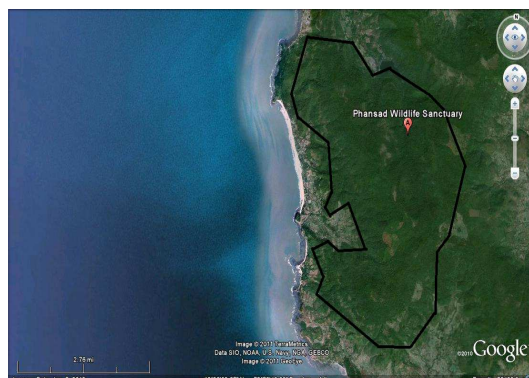
Zoogeography of Western Ghats (Ramakrishna, Radhakrishnan & Gopi 2001) characterises the Western Ghats on the basis of geology, biology and elevation. Phansad wildlife sanctuary is located in Raigad district of Maharashtra and is 151 km from Mumbai. It is in northern part of western ghat (18° 21'N to 18° 30'N and 72° 50'E to 73° E). The sanctuary represents a Coastal Woodland Ecosystem of Western Ghats, which makes the habitat very rich and offers highly peaceful atmosphere to wildlife. PWLS covers an area of 21,675 ha. The forest is of south Indian moist deciduous type with the primary vegetation comprising of *Memecylon umbellatum*, *Garcinia talbotii*, *Bombax ceiba*, *Madhuca indica*, *Terminalia tomentosa*, *Tectona grandis*, *Entada scandens*, *Bauhinia racemosa*, *Beautea monosperma*, *Syzygium cumini* etc. PWLS receives rainfall about 2,500-3,500 mm per year. Sanctuary supports good herpetofaunal diversity by providing essential environmental factors like good forest cover, grasslands, small rocky plateau, four perennial waterbodies (Chikal gann, Phansad gann, Savrat gann and Dharanachi gann).

**2.0 Methodology:**

Survey was done twice a month from 13<sup>th</sup> May 2010 to 19<sup>th</sup> June 2011. Survey was done with standard methodology of Visual encounter survey (Campbell and Christman, 1982, Crump and Scott, 1994) employing randomized walking (Lambert, 1984).

**3.0 Observations:**

*Ahaetulla nasuta* VAR. *isabellinus* was sighted only four times of herpetofaunal survey in PWLS. During monsoon season on 4<sup>th</sup> July at 22:00 hours *Ahaetulla nasuta* VAR. *isabellinus* was sighted near Phansad gann (Lat. 18° 26' N & 72° 26'E ) with partially coiled tailed on *Garcinia talbotii* few inches above the water body preying on *Nactybatrachus* sps. Only photographic record was taken after *Nactybatrachus* sps was engulfed with least disturbance (Fig: 1.1), Second sighting of *Ahaetulla nasuta* VAR. *isabellinus* was on 13<sup>th</sup> November at 18.34 hour lying 3 - 3.5 feet above the ground on *Memecylon umbellatum* (Fig: 1.2). Third sighting of *Ahaetulla nasuta* VAR. *isabellinus* was on 22<sup>nd</sup> May during 08.30 hours on grassland patch of Dhulecha maal (Lat.18° 26'N & 72° 56' E) moving towards eastern side of dense plantations. (Fig: 1.3).



**Fig. 2:** Map of Phansad Wildlife Sanctuary



***Ahaetulla nasuta* VAR. *isabellinus***

Fourth time, it was spotted during 18:43 hrs on *Tamarindus indica* in resting position (Fig: 1.4). All times it was properly identified by visual morphological characters like coloration and scale count (Table. 1) except first and fourth sighting. Though *Ahaetulla nasuta* VAR. *isabellinus* looks very similar in coloration to *Ahaetulla pulverulanta*, but *Ahaetulla nasuta* VAR. *isabellinus* differs with creamish brown body with tiny black spot on its dorsal side while *Ahaetulla pulverulanta* has dark brown blotches on entire dorsal part of its brown body and wide scalation difference.

The known habitat of reptiles was thoroughly searched. Serpent of genus *Ahaetulla* is truly arboreal in habitat so they were mainly searched on trees and bushes. Specimens were collected, photographed and identified using literature and field guide (Smith 1931, 1935, 1943, Ahmed, Das and Dutta 2009, Neelimkumar khaire 2006, Whitteka 2009) and were immediately released back to the same place.



**Fig. 1.1:** On 4<sup>th</sup> July at 22:00 hrs *Ahaetulla nasuta* VAR. *isabellinus* was sighted near Phansad gann



**Fig. 1.2:** On 13<sup>th</sup> Nov at 18:34 hrs *Ahaetulla nasuta* VAR. *isabellinus* was sighted near Phansad gann



**Fig.1.3:** Third sighting of *Ahaetulla nasuta* VAR. *isabellinus* was on 22<sup>nd</sup> May during 08.30 hrs near Dhulecha maal.



**Fig. 1.4:** Fourth sighting was spotted during 18:43 hrs on *Tamarindus indica* in resting position

**Table 1:** Scale count of *Ahaetulla nasuta* VAR. *isabellinus* in Phansad Wildlife Sanctuary

Scalation	Count	
	2 <sup>nd</sup>	3 <sup>rd</sup>
Scale's Oblique in rows	15:14:14 Smooth	15:14:14 Smooth
Ventral scales	192	189
Anal-Subcaudal divided	151	172
Supralabials	9	9
	8 <sup>th</sup> & 5 <sup>th</sup> touching eyes	
Prefrontal	1	1
Preocular	1	1
Presubocular	1	1
Parietal	1	1
Supraocular	1	1
Postocular	2	2
Anterior temporal	1	1
Posterior temporal	2	2
Total length	5.2 feet	4.3 feet
Sex	Female	Female

*Ahaetulla nasuta* is a peninsular species, widely distributed except in the northwest and much of the Gangetic basin in India. (Daniel 2002, Whitaker and Captian 2004). But *Ahaetulla nasuta* VAR. *isabellinus* is reported from Southern Rajasthan (Sharma S.K 2005), observed in Melghat tiger reserve, Amravati district of Maharashtra. (Nande & Deshmukh 2007), Castle rock in Karnataka and Nallamalai hill in Andhra Pradesh (Rao et al. 2005). This shows the species variety *isabellinus* could be more widely distributed

#### 4.0 Acknowledgement:

We take pleasure to thank members Mr. Rupesh Sagvekar, Mr. Santosh Shinde, Mr. Bhubesh Gupta, Mr Benedict Fernandes, Mr. Ajit Sonawne, Mr. Raja Patil, Mr. Niraj Singh, Mr. Rishab Pillae and Mr. Avinash Bhagat for doing extensive field work with us. We express our gratitude towards Shri. Raju Vyas, Shri Anil Kubal, Dr. Vaishali Somani and Mrs. Mugdha Hule for their encouragement, support and valuable suggestion to improve manuscript. We are highly indebted to Forest Department of PWLS for their help.

#### Reference:

- 1) Mallick PK, Hamadryad, Vol.22, No.2 p.p 124-125, 1998 copyright 1998 Center for Herpetology Madras. Crocodile bank trust.
- 2) Sharma S.K (2005). Three records of *Ahaetulla nasuta* VAR. *isabellinus* from Rajasthan. Zoos print Journal 20(11): 2061.
- 3) Smith, M.A. (1943). The Fauna of British India, Ceylon and Burma, including the whole of Indo-Chinese sub-region. Reptilia and Amphibia, Volume 3. Serpents. London. (Reprinted 1961 and 1981)
- 4) Khaire N. (2006). A Guide to the snakes of Maharashtra, Goa and Karnataka. United Multicolour Printer pvt.ltd., Pune 70pg
- 5) Whitaker R. and A. Captian (2004). Snakes of India. The field Guide. Draco books, Chennai, India, 266-272pg
- 6) Shivanand T. and Mohan Kumar M. (2004). Green vine snake *Ahaetulla nasuta* preying on a Baya weaver *Ploceus philippinus*. News letter for Ornithologist Vol. 1 No.6 (November- December. 2004).
- 7) Kanade, R.M. Tadwalkar. (2008) Vegetation composition the genus *Nyctibatrachus* (Anura, Ranidae) from Western Ghats, India. Current Science 80, No. 7, 887-891
- 8) Chandramouli S.R. and Ganesh S.R. (2011). Herpetofauna of southern western ghats, India- Reinvestigated after decades. TAPROBANICA, ISSN 1800-427X. October, 2010. Vol. 02, No. 02. pp.72-85.
- 9) Molur, S. and S.Walker (eds.) (1998). Reptillies of India. Bio-diversity Conservation Prcoritisation Project (BCPP) India, Endangered species project – Conservation Assesment and Management Plan (C.A.M.P) workshops. Zoo Outreach Organisation and CBSG, India, Coimbatore, India.
- 10) Nande & Deshmukh (2007). Snakes of Amaravati district including Melghat, Maharashtra, with important records of Indian egg eater, Mountane trinket snake and Indian smooth snake. Zoo's Print Journal 22(12):2920-2924
- 11) K.Tulsi Rao et al (2005). Herpetofauna of Nallamalai hills with eleven new records from the region including ten new records from Andhra Preadesh. Zoo's Print Journal 20(1):1740<sup>1-9</sup>