

NEW LOCALITY RECORDS OF NAGARJUN SAGAR RACER SNAKE, *COLUBER BHOLANATHI* SHARMA, 1976

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Abstract: The poorly-known endemic Indian snake *Coluber bholanathi* Sharma, 1976 is reported herein based on two live, uncollected specimens (an adult and a juvenile) from two new localities; namely, Thally (Hosur, Tamilnadu) and Devarakonda (Nalgonda, Andhra Pradesh) in the southern and central Eastern Ghats, respectively. Our new data expands the morphological and geographical characterizations of this enigmatic species. Certain inconsistencies as to the identity of its holotype are also clarified herein.

Keywords: India, Eastern Ghats, Serpentes, in-life coloration, morphology, geographical range, scrub forests.

Resumen: S.R. Ganesh, D. Adimallaiah and Prasad K. Kailash. “Nuevos registros de localidad para la serpiente corredora *Coluber bholanathi* Sharma, 1976”. La poco conocida serpiente, endémica de India, *Coluber bholanathi* Sharma, 1976 se reporta aquí con base en dos especímenes vivos, no capturados (un adulto y un juvenil) de dos nuevas localidades; a saber, Thally (Hosur, Tamilnadu) y Devarakonda (Nalgonda, Andhra Pradesh) en los Ghats del este meridional y central, respectivamente. Nuestros nuevos datos amplían las caracterizaciones morfológicas y geográficas de esta especie enigmática. Ciertas inconsistencias en cuanto a la identidad de su holotipo se clarifican también aquí.

Palabras Clave: India, Eastern Ghats, Serpentes, coloración en vida, morfología, distribución geográfica, bosques de matorral.

INTRODUCTION

Nagarjun Sagar racer, *Coluber bholanathi* Sharma, 1976 has remained a poorly-known snake since its original description (Whitaker 1978, Daniel 2002, Das 2002, Whitaker and Captain 2008). This species was described by Sharma (1967) based on specimens from Nagarjunsagar Hills (16°34'N 79°18'E; 140 m asl), a part of the Eastern Ghats, in Guntur district of Andhra Pradesh State, India. Sharma (2003), for reasons not spelt out, allocated this species to the genus *Argyrogena* Werner, 1924 and used the combination *Argyrogena fasciolata* (Sharma, 1976) for this species. Nevertheless, it is now again referred to the genus *Coluber* (Whitaker and Captain 2008) again without justifications. Subsequent authors have accepted the validity of this species and no synonyms are known (Whitaker and Captain 2008). Recently, this species was reported from Seshachalam Hills, Southern Eastern Ghats in Andhra Pradesh State (Gupta *et al.* 2012), being the first record out of the type locality.

THE NEW RECORDS

We here report on two field sightings of live, uncollected specimens

of *Coluber bholanathi*. The first specimen, an adult, was recorded from Thally (12°35'N 77°39'E; 920 m asl), Hosur district, Tamil Nadu State, India, by P.K.K. in September 2010. The second specimen, a juvenile, was recorded from Devarakonda (16°70'N 78°93'E; 270 m asl), Nalgonda district, Andhra Pradesh State, India, by A.M. in November 2010. These new localities were so far unreported for *C. bholanathi* (see Sharma 1976, 2003; Gupta *et al.* 2012) and represent a range extension for this species. Our digital photographs of these two snakes are included here to serve as vouchers for our sighting records.

The habitat of the sighting localities was largely characterized by dry, rocky outcrops, with large rocky boulders or hillocks intermixed with sparsely scattered scrublands. There were patches of open, xeric vegetation and some stunted trees, typical of the terrain of the Indian tableland or of the Deccan plateau (Champion and Seth 1968). The elevation ranged from 270 m (Devarakonda) to 920 m (Thally) elevation. Devarakonda, where one of our individuals was sighted is ca. 50 airline km northwest of Nagarjunsagar, the type locality of *C. bholanathi*. The other locality, Thally, is ca. 650 km airline southwest

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FIG. 1. Living, uncollected *Coluber bholanathi* (top left to bottom right) – dorsal views of head and neck of the juvenile from Devarakonda, entire profile of the juvenile from Devarakonda (photos by Aadi Mallaiah), lateral view of head and neck of adult from Thally (photo by P.K. Kailash); entire dorsal profile of the holotype ZSIC 21337 (photo by S.R. Chandramouli).

Coluber bholanathi vivo, no capturado (parte superior izquierda hasta parte inferior derecha) – vista dorsal de cabeza y cuello del juvenil de Devarakonda, perfil entero del juvenil de Devarakonda (fotos por Aadi Mallaiah), vista lateral de la cabeza y el cuello de adulto de Thally (Foto por P.K. Kailash); perfil dorsal entero del holotipo ZSIC 21337 (Foto por S.R. Chandramouli).

of the type locality and ca. 350 km airline West off Seshachalam hills (Gupta *et al.* 2012). The snakes were seen actively moving around during daytime (10:00-11:20 hrs) on the ground, along the edges of rocks, in rock-strewn hilly landscapes.

The morphology of Thally and Devarakonda specimens (n=2) is as follows: Total length 32-55 cm; ventral scales 208–210; subcaudal scales 108–110 pairs; dorsal scale rows 19 (near neck): 19 (midbody): 13 (near tail); vertebral scale row not enlarged; dorsal scales smooth, without apical pits; rostral much broader than high; preocular 1, large; presubocular 1, small; postoculars 2; loreal 1,

square-shaped; nostril situated in suture between two nasal scales; supralabials 9 (5th and 6th touching the eye); temporal 2+2, anterior ones larger; habitus slender; head distinct from neck, long; snout slightly pointed; labials white, with dark subocular streak; pupil round; dorsum predominantly brownish-grey, anteriorly with white, black-edged cross bars that diverge laterally to suffuse with adjacent such bars; occasionally, small brown islets occur within such white interspaces; hind body largely unpatterned, if not indistinctly marked with dark streaks; top of head with a characteristic pattern of two or three alternate white, black-edged, arrow-shaped markings; venter white,



FIG. 2. Map of southern India showing the previously known localities (Nagarjun Sagar and Seshachalam) and new localities (Thally and Devarakonda) of *Coluber bholanathi*.

Mapa del sur de la India con las localidades previamente conocidas (Nagarjun Sagar y Seshachalam) y nuevas localidades (Thally y Devarakonda) de *Coluber bholanathi*.

with blackish-brown speckles on the outer margins of ventral scales.

Distinctive dorsal body color pattern instantly separates our specimens from related, sympatric species such as *Argyrogena fasciolata* (Shaw, 1802), *Coelognathus helena helena* (Daudin, 1802), *Coronella brachyura* (Gunther, 1866) and *Liopeltis calamaria* (Günther, 1858). Smith (1943) considered several currently valid genera such as *Argyrogena* Werner, 1924, *Platyceps* Blyth, 1860 and *Spalerosophis* Jan, 1865 to be synonyms of *Coluber* Linnaeus, 1758 s.l. (Whitaker and Captain, 2008). Furthermore, it is noteworthy to mention here that *Coluber bholanathi* and *Coluber gracilis* (Günther, 1862), an allopatric congener, both share some scalation and coloration characters in common, except dorsal scale row count — 19:19:12-15 (fide Gupta *et al.* 2012) in *C. bholanathi* vs. 21:21:15 in *C. gracilis*; rostral scale twice as broad as high in *bholanathi* vs. as broad as high in *C. gracilis*; ventral scales 202–212 in *C. bholanathi* vs. 206–222 in *C. gracilis*; subcaudal scales 109–121 pairs in *C. bholanathi* vs. 118–127 pairs in *C. gracilis* (see Sharma 1976, 2003). Gupta *et al.* (2012) mentioned the posterior dorsal scale row count of their holotype “ZSIC 21331” (*sic*) to be 12. But actually, the holotype of this species is ZSIC [Zoological Survey of India, Calcutta] 21337 as mentioned in their same paper (Gupta *et al.* 2012) and herein (see Fig. 1).

In peninsular India, the Eastern Ghats is one of the more poorly studied regions in terms of herpetological diversity, notwithstanding the numerous surveys and inventories conducted there (Rao *et al.* 2005, Srinivasulu and Das 2008) and field surveys that still continue to add more species. This is evidenced by the fact that two new species of snakes were recently described from this hill range (Aengals and Ganesh 2013, Vogel and Ganesh 2013). Unfortunately, even the latest Eastern Ghats reptile-checklist by Murthy and Aengals (2008) was impoverished by a weak literature survey, as can be seen by the absence of certain snake species [e.g. *Liopeltis calamaria* (Günther, 1858) and *Sibynophis subpunctatus* (Duméril, Bibron *et* Duméril, 1854)] that had already been documented in this hill range recently (Rao *et al.* 2005, Srinivasulu and Das 2008). That this species, *Coluber bholanathi*, has evaded the attention of field herpetologists for such a long time is possibly due to its preference for dry rocky outcrops of the Eastern Ghats, a region wrongly thought to be devoid of biodiversity. Our new records of this species underscores the need for further explorations in the Eastern Ghats to better characterize the morphology, ecology and distribution range of this little-known endemic snake species.

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NOTE ADDED IN PROOF

While this article was in press, another paper on the same snake species was published:

Seetharamaraju, M. and C. Srinivasulu, 2013. Discovery and description of male specimen of *Coluber bholanathi* Sharma, 1976 (Reptilia: Colubridae) from Hyderabad, India. *Taprobanica*, 5(1):32-35+2pls.