

SHORT COMMUNICATION

First record of *Thelyphonus sepiaris indicus* (Stoliczka, 1873) (Uropygi) from Karnataka, India

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ABSTRACT

The present investigation is a study of *Thelyphonus sepiaris* from a Danimalai forest in Ballari district of Karnataka State. The study also reveals that the present collection of the species is a new record for Karnataka and also extends its range of distribution towards South west part in the peninsular India.

Key Words: Danimalai forest, new record, peninsular India, range extension, whip-scorpions.

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INTRODUCTION

The Order Uropygi is characterized by prosoma which is longer than broad and is covered by an undivided carapace possessing 8 or 12 eyes. They are distinct from scorpions by the presence of deep constriction between cephalothorax and abdomen, by the absence of pectines or combs on the sternal area and of poison-glands in the postanal skeletal piece (Pocock, 1900). The members of this order are commonly referred as 'Whip-scorpions' as a long whip-like jointed telson present, which is homologous to the sting of Scorpion and the very short flagellum of Schizomida. In Uropygids opisthosomatic glands secrete formic and acetic acid which are the animal's very characteristic mode of self-defence (Savory, 1964). Roychowdhury *et al.* (2013) showed a tracing line about the species biodiversity in organic agriculture based landscapes.

Uropygids are imposing, robust tropical predators with enlarged raptorial pedipalps and a multi-segmented elongated post-pygidium. Like schizomids, they possess anal glands that they use to accurately spray a chemical cocktail to deter predators (Eisner *et al.*, 1961). Rowland and Cooke (1973) have done more detailed work on the systematics of the Arachnid order Uropygida. Recently, Harvey (2002) provided detail account on the neglected Arachnid orders including Uropygi.

The Uropygids are globally recognized by 103 species under 16 genera (Harvey, 2002; 2003) and represented by 19 species under 6 genera from the Indian subcontinent (Pocock, 1900) of which only 6 species of 4 genera have so far been described from India (Bastawade, 1987). This is the first record of the Whip-scorpion *Thelyphonus sepiaris* (Butler, 1873) from a Danimalai forest in Ballari district of Karnataka State reported during a faunistic survey (figure 1). Perusal of literature shows that there is no record of this species from Karnataka state. The present paper deals with a short description of *Thelyphonus sepiaris* (Butler, 1873) and its range extension to known distribution.

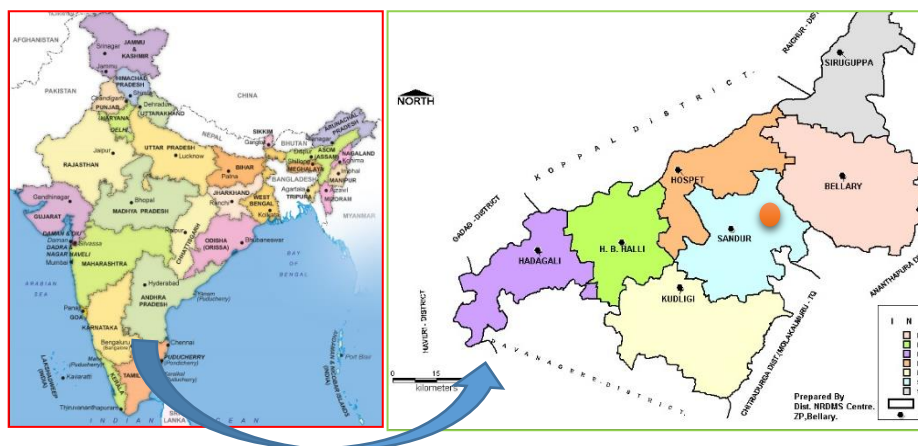


Figure 1. Showing India map (not to scale) and site location in Karnataka State

MATERIALS AND METHODS

Material Examined: One young female specimen of the Whip-scorpion *Thelyphonus sepiaris* (Butler, 1873) (figure 2) was collected from a locality known as Danimalai forest (latitude N 15°03'56", longitude. E 76°37'46", altitude 2794 ft) in Salur taluk, Ballari District, Karnataka State on 14th August 2011 by the first author and preserved in rectified spirit. The specimen was studied and deposited in Wet Collection of the Environmental Sciences Department museum (Registration No. ANU/ENVS/FAUNA/INV/29). The specimen was found under stone near the tropical dry deciduous forest. The photographs are taken using Digital camera (KODAK EASYSHARE C143 Digital Camera) in the field and LEICA M205A Stereozoom Microscope in the laboratory.



Figure 2. *Thelyphonus sepiaris indicus* (Stoliczka, 1873) in life

RESULTS AND DISCUSSION

The specimen was collected from the forest track during afternoon, when it was under the rock. Generally it found under the medium size stones near humid places with full of leaf litter. We collected one specimen of this species from the habitat (figure 3), which composes typical southern tropical mixed dry deciduous forest type intermingled with scrub vegetation (Champion and Seth, 1968). The climate is generally hot and dry with maximum temperatures rising up to 45°C during May and drops down to 8°C in December. Average rainfall in this locality is about 900 – 1000 mm.



Figure 3. Habitat photo of the site locality

Description

Colour black or blackish brown above and on pedipalp, reddish brown below; legs black, with tibiae and tarsi red-brown. Carapace and terga coarsely rugose, with close-set punctures and granules, a smooth paler median line present on 2nd and 3rd and just traceable on posterior terga. Distinct ocular keel or ridge extends along the margin of the carapace between the median and lateral eyes of each side. Pedipalp: maxillary process of coxa internally shouldered with one strong and short tooth (figure 4); femur and tibia granular below, polished and punctured above; trochanter granular above, armed below with 2 teeth and 6 above. Sterna smooth, punctured and scratched with transverse lines. First abdominal sternum with its posterior border strongly and convexly produced (figure 5). Teeth on trochanter and femur of pedipalp larger; hand narrower than tibia; movable finger without subapical tooth. Tarsal segments of 1st leg unmodified. Legs of 2nd, 3rd and 4th pairs with tibial spine. The last anal segment is with two ommatoids, without dark sclerotized spot near the centre. Telson or caudal flagellum hairy with 27 segments. Body length is about 22 mm (excluding pedipalp and telson); while telson measures about 28 mm. Based on this description the specimen was identified as a young female of *Thelyphonus sepiaris* (Butler, 1873).

Thelyphonus sepiaris (Butler, 1873) is endemic to Deccan in Oriental region. In India, it is reported from Tamil Nadu (Pocock, 1900), Andhra Pradesh (Javed *et al.*, 2009) and Madhya Pradesh (Talmale *et al.*, 2012). It shows wide range of distribution in Peninsular India. After reviewing available literature for distribution of *Thelyphonus sepiaris* (Butler, 1873) is recorded for the first time from Karnataka and also confirms its range of extension further South West Peninsular India.

CONCLUSION

Diagnosis of our specimen complies well with the available description provided by Pocock (1900). After proper diagnosis of the only specimen, we identified it as *Thelyphonus sepiaris indicus* (Stoliczka, 1873) (Uropygi). So far, up to our knowledge and on the basis of the known distribution, this is the first ever record of this species from Karnataka, India. Previous records of this species show that this taxon is well distributed in the south India.



Figure 4. Pedipalp coxa showing maxillary process with tooth (ventral view)



Figure 5. First abdominal sternum with its posterior boarder strongly and convexly produced, female (ventral)

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