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NOTE

FIRST RECORD OF THE PREDATORY STINKBUG *EOCANTHECONA CONCINNA* (WALKER, 1867) (PENTATOMIDAE: ASOPINAE) FROM INDIA

Sadashiv Hanumant Waghmare & Sunil Madhukar Gaikwad

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The subfamily Asopinae belongs to family Pentatomidae is distributed throughout the world. There are 357 recognized species of Asopinae in 63 genera worldwide (Thomas 1992, 1994; Grazia et al. 2015). Members of this subfamily are commonly known as predatory stinkbugs which are set apart from other pentatomid subfamilies by their predaceous nature. They are characterized by a strong four segmented incrassate rostrum in which first segment is very thickened and free. They feed upon other insects especially on lepidopterous larvae and act as a biological control agent against several pests. Some asopines feed on even other pentatomid species, which are all herbivorous (De Clercq 2008). Genus *Eocanthecona* of Asopinae is distributed throughout Ethiopian, Oriental, Palearctic and Australasian regions. This genus is represented by 20 species around the world (Rider 2016). Among them only six species were reported by Distant (1902, 1908) from India and one species from Sri Lanka. The members of this genus are characterized by a prominent spine at the anterior femora and distinct spine at the base of abdomen. Bergroth (1915) has given the characters of the new genus *Eocanthecona* as: sides of the metasternum a little raised but not produced forward and backward; tibiae conspicuously sulcate down their whole length; the males with a large stridulatory patch on each side of the 4th and 5th segments ventrally and apical margin of sixth male abdominal segment broadly unisinate.

During fieldwork the authors collected one interesting

FIRST RECORD OF THE PREDATORY STINKBUG *Eocanthecona concinna* (WALKER, 1867) (PENTATOMIDAE: ASOPINAE) FROM INDIA

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predatory stinkbug identified as *Eocanthecona concinna*. This species was first reported by Walker in 1867 as *Canthecona concinna* from Hong Kong, China. Authors have not come across any published report of this bug from India; and there are neither color photographs nor good illustrations and detailed diagnostic characters of this species available anywhere. Here we have given a brief description and good illustrations based on one specimen collected and kept in the Department of Zoology, Shivaji University, Kolhapur, India.

Methods: The specimen *E. concinna* was collected from Suley, Chandgad, Kolhapur District of Maharashtra (Fig. 1). The collected specimen was brought to the laboratory of Department of Zoology, Shivaji University, Kolhapur. It was euthanised using ethyl acetate and pinned, photographed, labeled and preserved by dry preservation method.

Material examined: ZSUK.E/02, 1 male, 21.x.2015, Sulaye (15°54'40.4"N & 74°11'48.4"E), Chandgad, Kolhapur, Maharashtra, India, coll. S.H. Waghmare (Images 1–8).

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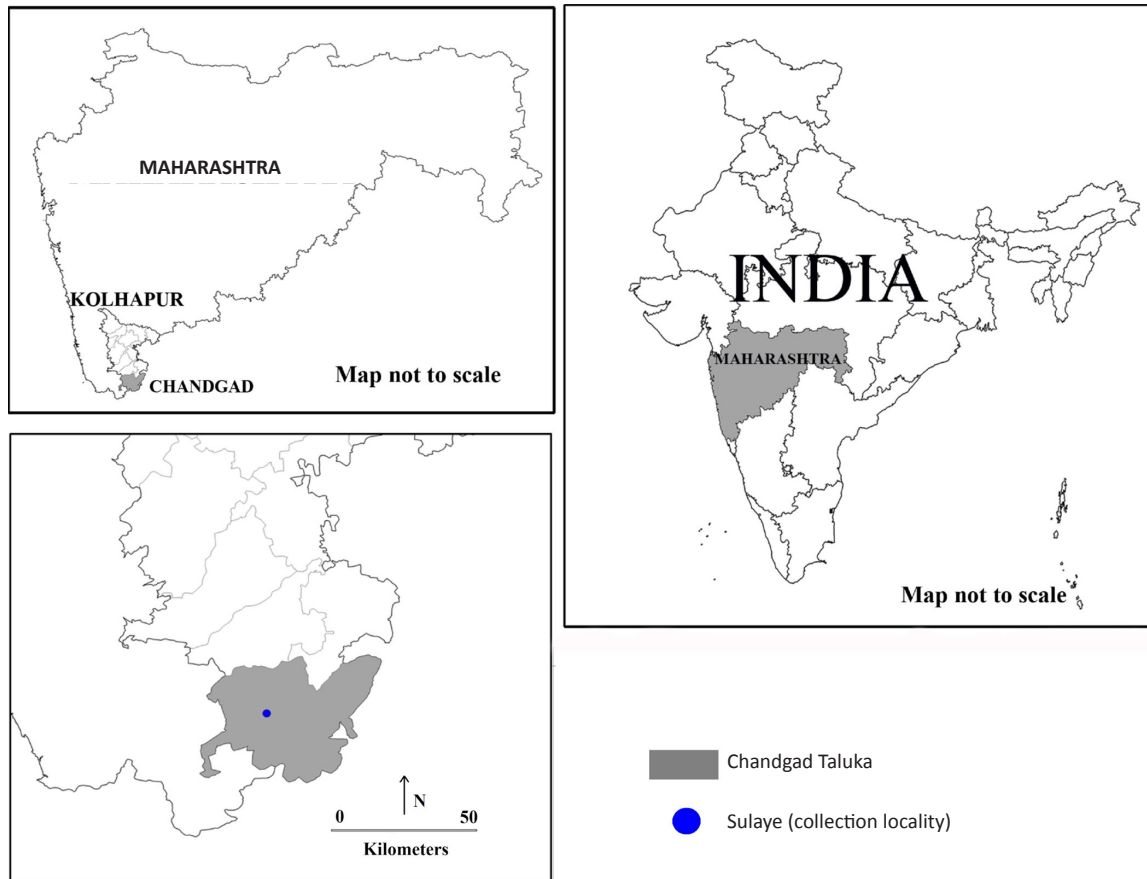


Figure 1. Location of recorded species from Chandgad, Maharashtra, India

Diagnostics: The body length of studied specimen is 12.4mm (from head to tip of membrane) and width 6.9mm (between tips of pronotal angle). The bug is ochraceous, chocolate brown in colour, thickly punctured. Head thickly punctured, juga subequal in length to tylus. Eyes are compound brown, below each eye there is a reddish ocellus present (Image 6). Antennae five segmented, first segment is small not reaching at the apex of head (Image 1). The sides of the metasternum a little raised, but not produced forward and backward. Rostrum luteous four segmented passing through posterior coxae. First segment is incrassate, tip of rostrum is black pointed (Image 2). Pronotum densely punctured more than twice as broad as long, anterolateral pronotal margin concave yellowish, lateral angles of pronotum projecting end of bifurcation, toothlike processes (Image 7). Scutellum is less triangular semi-elliptical in shape, thickly punctured, ochraceous, chocolate brown in colour; two rounded yellowish spots are present at the basal part; apex somewhat 'U' shaped (Image 5). Corium small thickly punctured. Connexivum alternately banded with black and white colour. Membrane thin



Image 1. *Eocanthecona concinna* (dorsal view)



Image 2. *Eocanthecona concinna* (Rostrum passing through posterior coxae)



Image 3. *Eocanthecona concinna* (foreleg dorsal view)



Image 4. *Eocanthecona concinna* (foreleg ventral view)



Image 6. *Eocanthecona concinna* (head dorsal view)

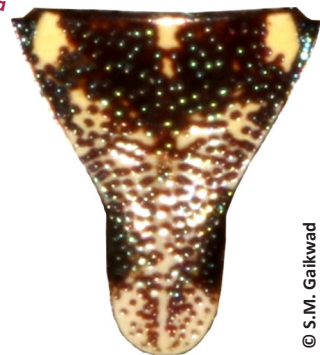


Image 5. *Eocanthecona concinna* (scutellum dorsal view)

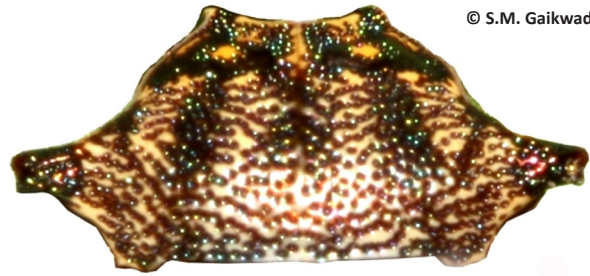


Image 7. *Eocanthecona concinna* (pronotum dorsal view)



Image 8. *Eocanthecona concinna* (abdomen ventral view)

blackish in colour, passing much beyond abdominal apex (Image 1). Legs ochraceous, thickly punctured, having numerous black spots. Tibiae markedly sulcate down their whole length. Forelegs are different than midlegs and hindlegs. Tibia of Foreleg have blade like protrusions, anterior femora with a prominent spine (Image 3 and 4). Abdomen ochraceous, densely punctured. At the base of abdomen there is a distinct yellowish spine present below the tip of rostrum and a large hairy patch on each side of 4th and 5th ventral abdominal segment; apical margin of 6th ventral segment broadly unisinate. A large rounded black spot present at the middle region of last abdominal segment (Image 8).

Discussion: After its discovery, some workers like Kirkaldy (1910), Yang (1934), Miyamoto (1965), Hasio & Cheng (1977) reported this bug from different

regions of China and Taiwan. Rider 1998 provided list of Pentatomidae in Bishop Museum Collections in which this species was reported. Václav Hanzlík listed this species as biolib ID 911153 in 2012 (<http://www.biolib.cz/en/taxon/id911153/>). According to Taiwan Biodiversity Information Facility (TaiBIF) this bug was collected by Fan Yibin in 2012 from Shihting, Taiwan (<http://taibif.tw/zh/namecode/339398>).

Review of the literature indicates that this bug has been reported only from China and Taiwan. The occurrence of this bug from Sulay, Chandgad is an addition to the stinkbug fauna of India.

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