

**A NEW SPECIES OF *AESCHROCORIS* BERGROTH  
(HEMIPTERA: HETEROPTERA: PENTATOMIDAE:  
PENTATOMINAE) FROM INDIA**

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**ABSTRACT:** A new species of *Aeschrocoris* Bergroth, 1887, *Aeschrocoris spinosum* sp. nov. is described and illustrated from India. Diagnostic characters of the genus *Aeschrocoris* Bergroth, 1887 are given in brief. This new species is closely related to *Aeschrocoris fumosus* Distant by sharing common characteristics such as head a little longer than broad between eyes, lateral margins slightly concavely sinuate; pronotum with a transverse series of small prominent tubercles on disk, but the former can easily be distinguished from the latter by having pronotum with apical angles produced in a short porrect acute tooth, humeral angles spinously produced; scutellum terminating in a small concolorous tubercle.

**KEY WORDS:** Heteroptera, Pentatomidae, Pentatominae, *Aeschrocoris spinosum*, new species, Chhattisgarh, India

Pentatomidae is the 3<sup>rd</sup> largest family in the Heteropterous Rhynchota after Miridae and Reduviidae, represented in all parts of the world. They exhibit conspicuous coloration and are commonly known as “stink bugs”, as their bodies are usually covered with a shield shaped scutellum covering more than half of the abdomen. They are also characterised by tibia with weak or no spine, five-segmented antennae and most of them emit an unpleasant odour, offensive in nature, produced by a pair of glands in the thorax and is released through openings in the metathorax. Family Pentatomidae represents 4722 species within 896 genera and distributed in eight subfamilies (Pentatominae, Asopinae, Podopinae, Edessinae, Phyllocephalinae, Discocephalinae, Cyrtocorinae and Serbaninae). Genus *Aeschrocoris* Bergroth is mainly confined to the Oriental region and can easily be recognised by having body strongly convex; elongated head, antennae five-segmented, rostrum passing posterior coxae; pronotum more than twice as long as broad, its lateral angle produced in stout, cylindrical processes directed upward or forward; scutellum broad, wider than long; corium short; membrane with reticulated veins. This genus is represented by eight species viz. *A. ceylonicus* Distant, *A. fumosus* Distant, *A. obscurus* (Dallas), *A. tuberculatus* (Stal), *A. nodiventris* Breddin, *A. rugulosus* (Distant), *A. saucius* Bergroth, *A. testudinarius* (Walker) from the world (Distant 1902, 1907, Bergroth 1922). Of which, first four species viz. *ceylonicus* Distant, *fumosus* Distant, *obscurus* (Dallas) and *tuberculatus* (Stal) are so far known from India. This paper presents a new species, viz. *Aeschrocoris spinosum* from Chhattisgarh, India.

#### MATERIALS AND METHODS

This study is based on the materials collected during a field survey from Surguja District of Chhattisgarh. The specimens were collected in 70% alcohol and then set pinned. The specimens are deposited in the National Zoological Collection of Zoological Survey of India, Hemiptera Section, Kolkata.

Measurements and photographs of the specimens and the different parts of the body were taken with the aid of Leica M 205A. The following dimensions were

measured: body length (from apex of mandibular plates to apex of membrane), head length (from apex of mandibular plates to anterior margin of pronotum), head width (maximum width across eyes), interocular width (between inner margins of compound eyes), length of each antennal segment (maximum length), pronotum length (medially in most exposed, anterodorsal view), pronotum width (maximum width between processes on humeral angles), scutellum length (medially from base to apex) and scutellum width (maximum width at base). All measurements are in millimetres.

## RESULTS AND DISCUSSION

### Genus *Aeschrocoris* Bergroth, 1887

1887. *Aeschrocoris* Bergroth, Ent. Nachr., 13: 152.

Type species: *Aeschrus obscurus* Dallas, 1851, by monotypy

#### Diagnosis

Member of the genus *Aeschrocoris* Bergroth can easily be recognised by having body strongly convex; head elongated, lateral margin slightly concave, apex truncate, apical angles obtusely acute; antennae five-segmented, basal segment not reaching apex of head; rostrum passing posterior coxae; pronotum more than twice as long as broad, its lateral angle produced in stout, cylindrical processes directed upward or forward; scutellum broad, wider than long, basal area gibbous; corium small, short; membrane with reticulated veins; abdomen with tubercle at lateral posterior angle of each segment.

The new species *Aeschrocoris spinosum* sp. nov. is closely related to *Aeschrocoris fumosus* Distant from which it can easily be separated by having following key characters.

1. Pronotum with their apices notched and posteriorly distinctly dentate; scutellum not tuberculate.....***Aeschrocoris fumosus* Distant**
- . Pronotum with apical angles produced in a short porrect acute tooth, humeral processes spinously produced; scutellum terminating in a small concolorous tubercle.....***Aeschrocoris spinosum* sp. nov.**

### ***Aeschrocoris spinosum* sp. nov.**

(Figs. 1-6)

#### Description:

**Colour:** Body brownish yellow; head, anterior area of pronotum and margins of produced lateral angles, basal angle of scutellum, dark brown to black (Fig. 1); antennae with first three segments yellowish brown except base and apex of first segment, fourth and fifth segments of brownish yellow; rostrum brown (Fig. 5); body beneath black suffused with yellowish brown markings (Fig. 2); femora black, medially with two brownish yellow annulations, tibia yellowish brown with their bases black, and with an apical and medial reddish brown annulations (Fig. 2).

**Structure: Head:** Head elongated, coarsely punctate, strongly deflected, a little longer (1.15 mm) than broad between eyes (0.94 mm), about 1.22X as broad as interocular distance, (1.00:0.82), lateral margins slightly concavely sinuate, anterior angles prominent, a central raised longitudinal line on disk which posteriorly reaches two short basal similar lines (Fig. 3); antennae five-segmented, basal segment (0.52 mm) not nearly reaching apex of head, third (0.56 mm) and fourth (0.59 mm) segments sub-equal in lengths, apical segment (0.79 mm) longer than rest of the segments, relative length of antennal segments: I:II:III:IV:V=0.65:0.56:0.70:0.74:1.00 (Fig. 5); rostrum slender, passing posterior

coxa, second segment longest (1.67 mm), relative length of rostral segments: I:II:III:IV= 0.51:1.00:0.48:0.20 (Fig. 2).

**Thorax:** Pronotum rugulose, punctate, broader (5.10 mm) than long (2.07 mm), about 2.46X as long as wide, with a somewhat obscure, irregular raised longitudinal line, a transverse series of small prominent tubercles on disk, apical angles produced in a short porrect acute tooth, humeral angles spinously produced (Fig. 3); scutellum rugulosely punctate and terminating in a small concolorous tubercle (Fig. 4), slightly broader (2.83 mm) than long (2.13 mm); corium coarsely punctate, short; membrane with reticulated vein (Fig. 1); femora thicker and longer than tibia, hind femora about 1.04X as long as hind tibia (Fig. 2); tarsus three-jointed, claws subequal.

**Abdomen:** Body beneath thickly punctate, more finely on abdomen than on sternum; abdomen with a small tubercle at lateral angles of each segment (Fig. 2); mesosternum broadly sulcate.

**External female genitalia:** 1<sup>st</sup> gonocoxae triangular with posterior margins convex, medially fused; gonapophyses small and subtriangular; 8<sup>th</sup> and 9<sup>th</sup> paratergites apparently fused, lobulate, rounded at posterior margin with outer margins concave (Fig. 6).

**Measurements:** (in mm). Total body length 5.62; head length 1.15, interocular distance 0.94, head width across compound eyes 1.56; length of antennae 2.79, lengths of antennal segments I : 0.52, II : 0.45, III : 0.56, IV: 0.59 and V: 0.79; rostral length 3.67, length of rostral segments I : 0.85, II : 1.67 III : 0.81 and IV: 0.34; medial length of pronotum 2.07; width across the humeri 5.10; medial length of scutellum 2.13, basal width of scutellum 2.83; length of fore coxae: 0.34, trochanter: 0.52, femur: 1.82, tibia: 1.56, tarsus: 0.50, claws: 0.10; mid coxa: 0.40, trochanter: 0.55, femur: 2.04, tibiae: 1.58, tarsus: 0.76, claws: 0.12; hind coxae: 0.47, trochanters: 0.56, femur: 2.64, tibia: 2.55, tarsus: 0.89, claws: 0.19.

**Type material:** Holotype female. INDIA: Chhattisgarh: Surguja District: Tara: Avaya nala, 16.IX.2012, coll. A. Raha and party (Lat.: 22.84°, Long.: 82.74, Alt. 559 m). Paratypes. 1 female, Chhattisgarh: Surguja District: Tara: Avaya nala, 16.IX.2012, coll. A. Raha and party (Lat.: 22.84°, Long.: 82.74, Alt. 559 m).

**Distribution:** INDIA: Chhattisgarh.

**Etymology:** It denotes spinously produced humeral angles of the pronotum.

**Discussion:** This new species, *Aeschrocoris spinosum* is closely related to *Aeschrocoris fumosus* Distant from Uttarakhand by sharing common characters such as body brownish yellow; head, anterior area of pronotum and margins of produced lateral angles, basal angle of scutellum black; body beneath black suffused with yellowish brown markings; femora black, medially with two brownish yellow annulations; head elongated, coarsely punctate, strongly deflected, a little longer than broad between eyes, lateral margins slightly concavely sinuate, anterior angles prominent, a central raised longitudinal line on disk which posteriorly reaches two short basal similar lines; pronotum rugulose, punctate, broader than long and with irregular raised longitudinal line, a transverse series of small prominent tubercles on disk; corium coarsely punctate; body beneath thickly punctate, more finely on the abdomen than on the sternum. However *Aeschrocoris spinosum* sp. nov. can be easily distinguished from *Aeschrocoris fumosus* Distant by following diagnostic characteristics: pronotum with apical angles produced in a short porrect acute tooth, humeral angles spinously produced (Fig. 3); scutellum terminating in a small concolorous tubercle (Fig. 4); antennae with first three segments yellowish brown except base and apex of first segment, fourth and fifth segments of brownish yellow (Fig. 5); tibia yellowish brown with their bases black, and with an apical and medial reddish brown annulations (Fig. 2).

**Host:** unknown

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Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Figures 1-6. *Aeschrocoris spinosum* sp. nov. 1. Dorsal view of female; 2. ventral view of female; 3. dorsal view of head and pronotum; 4. scutellum, dorsal view; 5. antennae, ventral view; 6. abdominal tip of female, ventral view.