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A NEW SPECIES AND A NEW RECORD OF EYSARCORINI (HETEROPTERA: PENTATOMIDAE) FROM BANGLADESH AND PAKISTAN*

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Hermolaus qadrii is described as a new species from Ishurdi, Bangladesh, and *Carbula biguttata* (Fabr.) is newly recorded from Islamabad, Pakistan, and is redescribed with special reference to some of its unknown characters like metathoracic scent gland ostioles and genitalia.

INTRODUCTION

During a revision of Pentatomoidea from Pakistan and Bangladesh the present authors encountered an unique male eysarcorine from Ishurdi, Bangladesh, which certainly belongs to the genus *Hermolaus* Distant [1] for it has a projected and acuminate head (having paraclypei distinctly longer than clypeus in contrast to longer clypeus as reported by Distant [1] in all the three species of the genus, probably confusing the labrum as part of the clypeus) but it differs from all the three species described by Distant [1,2] and from *H. amurensis* Horvath [3] reported from Nilghiris India in its remarkably elongated labium reaching to seventh abdominal sternum. This unique male specimen is described here as *H. qadrii* new species with special reference to its metathoracic scent gland ostioles and male genitalia.

Three ♀ specimens of another eysarcorine genus *Carbula* Stål [4] were collected from Islamabad, Punjab, and were identified as *C. biguttata* (Fabr.) [5]. This is a new record of the species from Pakistan and as the above characters of this species are unknown in the literature, *C. biguttata* is presently redescribed and is compared with the only other species of the genus *C. insocia* (Walker) [6] known from Pakistan (Abbasi [7], Ahmad *et al.* [8]). For measurements and for diagrams conventional procedures of present authors [9] have generally been followed. All the measurements are in mm.

Hermolaus qadrii, new species

Colouration. Body ochraceous with dense black punctures except two pale basal spots on scutellum, eyes with brownish tinge, pink ocelli, pale yellowish connexiva with

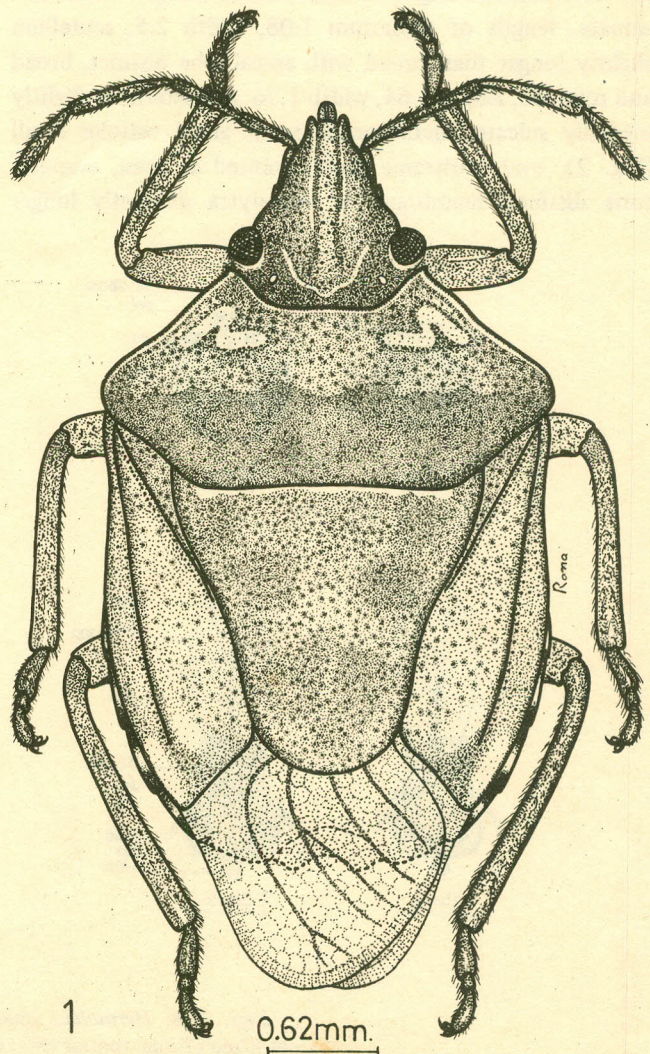


Fig. 1. *Hermolaus qadrii*, new species, male, dorsal view.

proximal and distal joints blackish and smoky membrane of hemelytra with brownish veins.

Head. Longer than broad, acuminate; deflected distinctly longer than pronotum; outer margin of paraclypei in front of

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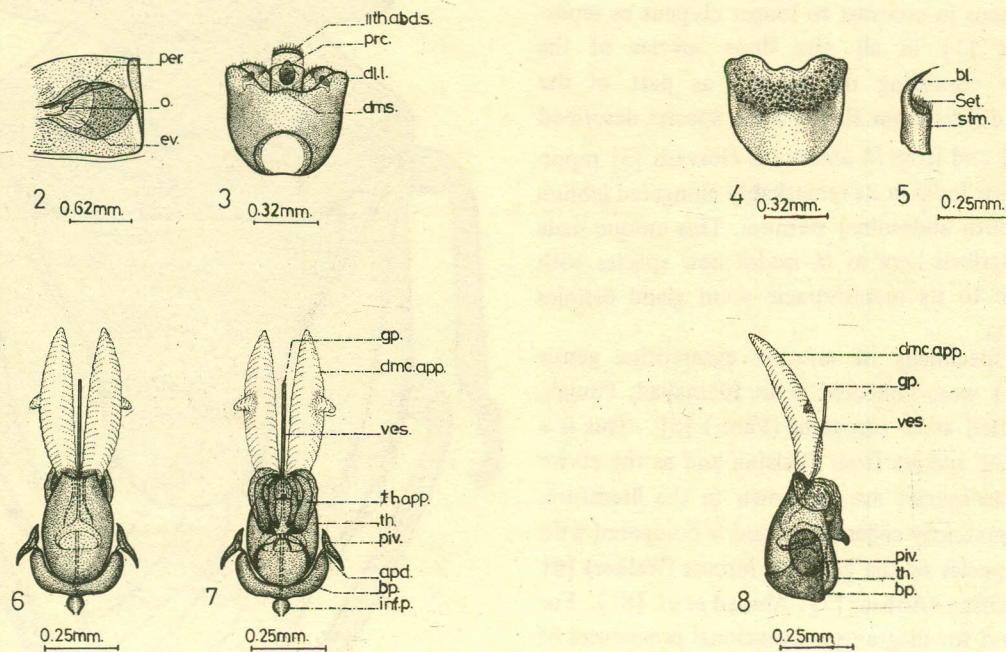
eyes distinctly sinuate, longer than clypeus; anterior region slightly longer than posterior including eyes; antenniferous tubercles visible from above; antennae with 2nd and 3rd segments equal in length, 5th longest, length of segments I 0.3, II 0.4, III 0.4, IV 0.6, V 0.8, antennal formula $1 < 2 = 3 < 4 < 5$; labium reaching anterior margin of 7th abdominal venter with basal segment passing bucculae, 2nd segment longest, 3x longer than 3rd and 4th separately, length of segments I 0.3, II 1.2, III 0.4, IV 0.4, labial formula $1 < 3 = 4 < 2$; length of anterior region 0.72; length of posterior region including eyes 0.6; width 1.16; interocular distance 0.72; interocellar distance 0.56.

Thorax. Pronotal length distinctly more than 2x its width, deflected, anterior angles acute, anterolaterally directed, humeral angles rounded, lateral margins entire but sinuate, length of pronotum 1.08, width 2.5; scutellum slightly longer than broad with apical lobe distinct, broad and rounded, length 1.64, width 1.76; mesosternum slightly medially sulcate; metathoracic scent gland ostioles small (Fig. 2), oval, peritreme short, pointed at apex, evaporatoria distinct; membrane of hemelytra distinctly longer

than abdomen; distance base scutellum—apex clavus 0.56; apex clavus — apex corium 1.12; apex corium — apex membrane 0.8; apex scutellum apex membrane including abdomen 1.16.

Abdomen. Broader than long; connexiva exposed at repose; ventrally convex, 7th male abdominal sternum longer than the rest of the abdominal sternites with concave posterior margin and lateral angles subrounded. Total length ♂ 5.20.

Male Genitalia. Pygophore (Figs. 3,4) slightly broader than long, with dorsomedian surface sinuate, dorsolateral lobes rounded, dorsolateral inner processes small, lobe-like, ventroposterior margin medially concave and sinuate, with broadly rounded lobes; parameres (Fig. 5) with blade slightly curved, outer margin convex, with short stem, apex narrowed pointed; aedeagus (Figs. 6–8) with postero-dorsal margin concave, posteroventral margin sinuated with two pairs of sclerotized oar-like thecal appendages, fused at base, dorsal membranous conjunctival appendage semisclerotized, elongated, divided at base, conjunctival appendages with knob-like mediolateral lobes, vesica thin,



Figs. 2–8. *Hermolaus qadrii*, new species, 2. metathoracic scent gland ostiole, ventral view; ev. (evaporatoria), o. (ostiole), per. (peritreme); Pygophore, 3. dorsal view, 4. ventral view. dl.l (dorsolateral lobe), dms. (dorso-median surface), prc. (proctiger), 11th. abds. (eleventh abdominal segment); paramere, 5. inner view. bl. (blade), set. (setae), stm. (stem); aedeagus, 6. dorsal view, 7. ventral view. apd. (apodeme), bp. (basal plate), dmc. app. (dorsal membranous conjunctival appendage), gp. (gonopore) inf. p. (inflatory pump) piv. (pivot), th. app. (thecal appendage), th. (theca), ves. (vesica), 8. lateral view.

elongated, never passing dorsal membranous conjunctival appendage.

Material Examined. Holotype ♂ Bangladesh: Ishurdi, on *Desmostachya bipinnata* L., 20.1.1969 leg. M.U. Shadab in Natural History Museum, Department of Zoology-Entomology, University of Karachi.

Comparative Note. This species is closely related to *H. typicus* Distant [1] in its acuminate head and general body colouration but can readily be separated from the same in having longer body (5.20 as compared to 5.0 in *H. typicus*) and a remarkably long labium reaching to the 7th abdominal sternum as compared to a shorter labium reaching to the 4th abdominal sternum in *H. typicus*. *H. qadrii* is named in honour of late Professor M.A.H. Qadri of Department of Zoology, University of Karachi to acknowledge his work on Hemiptera.

Carbula biguttata (Fabricius)

Coreus biguttatus Fabricius [5], 129; *Cimex biguttatus*, Fabricius [10], 165; *Pentatoma (Carbula) biguttata*, Stål [11], 140; *Cimex binotatus* Fabricius [10], 165; *Pentatoma obscura* Westwood [12], 35; *Carbula biguttata*, Distant [1], 172; *Carbula biguttata*, Distant [2], 812.

Colouration. Body dark brown, dorsally with black punctures, except light brown first four and proximal ½ of 5th antennal segments, anterior ½ of lateral margins of pronotum, legs and median portion of connexival joints, one pale luteous wide spot on each basal angles of scutellum, reddish brown eyes with brownish tinge, pink ocelli, smoky and transparent membrane of hemelytra.

Head. Slightly broader than long, apex broad; as long as pronotum, outer margin of paraclypei slightly sinuate and slightly reflexed anteriorly, equal to clypeus; anterior region equal to the posterior including eyes; antenniferous tubercles slightly visible from above; antennae with 2nd and 3rd segments equal, 5th longest, length of segments I 0.4, II 0.75, IV 0.9, V 1.1 antennal formula 1 < 2 = 3 < 4

< 5; labium reaching to the posterior coxae, basal segment passing bucculae with 2nd segment longest, as long as 1st and 2nd segments together, length of segments I. 7, II 1.3, III 0.5, IV 0.7, labial formula 3 < 1 = 4 < 2; length of anterior region 0.9; length of posterior region including eyes 0.9; width 1.9; interocular distance 1.1; interocellar distance 0.7.

Thorax. Pronotal length distinctly 3x its width, deflected, anterior angles acute directed anterolaterad, anterolateral margins crenulate, reflexed, humeral angles subacute, apices broadly black, directed backward, length of pronotum 1.9, width 5.5; scutellum slightly broader than long, apical lobe broad and rounded, length

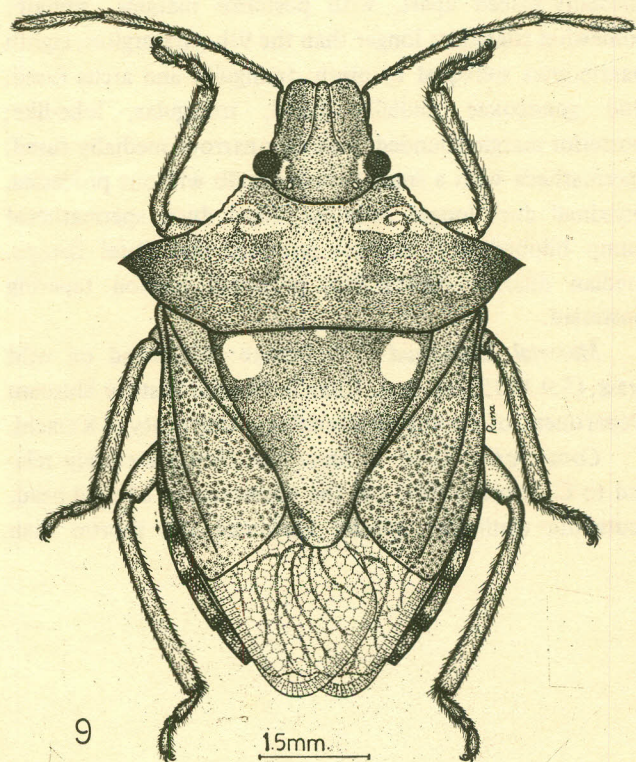
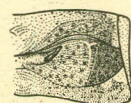
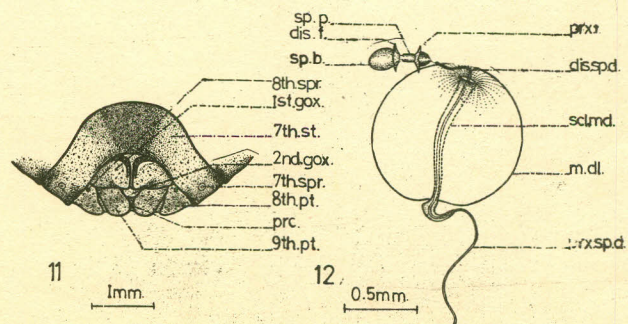


Fig. 9. *Carbula biguttata* (Fabricius), female dorsal view.

Fig. 10-12. *Carbula biguttata* (Fabricius), 10, metathoracic scent gland ostiole; 11, female terminalia, 1st. gox. (First gonocoxa), 2nd. gox. (second gonocoxa), 7th. st. (seventh sternum), 7th spr. (seventh spiracle) 8th. pt. (eighth paratergite), 8th. spr. (eighth spiracle), 9th. pt. (ninth paratergite), prc. (proctiger); 12, spermatheca, dis. spd. (distal spermathecal duct), dis. f. (distal flange), m.d.l. (median dilation), prx.f. (proximal flange), prx. spd. (proximal spermathecal duct), scl.mid. (sclerotized median duct), sp.b. (Spermathecal bulb), sp. p. (spermathecal pump).



10
1.5mm



11
1mm

12
0.5mm

of scutellum 2.9, width 3.0; mesosternum slightly medially sulcate; metathoracic scent gland ostioles small (Fig. 10), peritreme short, elliptical, apex rounded, evaporating area well defined, slightly raised; membrane of hemelytra hyaline reaching the apex of abdomen; distance base scutellum—apex clavus 2.0; apex clavus — apex corium 1.2; apex corium—apex membrane 1.9; apex scutellum—apex membrane including abdomen 2.0.

Abdomen. Broader than long; connexiva well exposed at repose; ventrally convex; 7th female abdominal segment longer than the rest of abdominal sternites, ventroposterior margin of seventh abdominal sternum medially concave. Total length ♀ 8.6.

Female Genitalia. (Fig. 10 – 12) First gonocoxae medially placed apart, with posterior margins sinuate, somewhat triangular, longer than the 9th paratergites; eighth paratergites subequal to ninth; triangulin and arcus fused; 2nd gonocoxae medially fused, triangular, lobe-like; posterior margin rounded; proctiger narrow, medially fused; spermatheca with a small rounded bulb without processes, proximal duct longer than the distal duct, spermathecal pump bilobed with distinct proximal and distal flanges, median dilation balloon-like, proximal portion tapering posteriad.

Material Examined. 3 ♀ Punjab: Islamabad on wild grass, (5.9.1975) leg. A.A. Khan in Natural History Museum Department of Zoology-Entomology, University of Karachi.

Comparative Note. *C. biguttata* (Fabr.) is closely related to *C. insocia* (Walk.) in the characters of a broad head, scutellum distinctly apically narrowed and shorter than

corial length and anterolateral margins of pronotum crenulate, but can easily be separated from the same by more produced lateral pronotal angles, and more elongated ninth paratergites in females with a smaller median dilation in spermatheca. Abbasi [7] described the male and female genitalia of *C. insocia* (Walk.) but his descriptions and diagrams appear confusing.

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