

A New Record and Redescription of *Plinachtus acicularis* (F.) (Heteroptera: Coreidae) from Pakistan

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Abstract.- The gonocerine squash bug *Plinachtus acicularis* (F.) is for the first time recorded from Kalam in Swat, Pakistan and is redescribed with special reference to its metathoracic scent auricle and genitalia. A key is also given to *P. acicularis* (F.) and *P. basalis* (Westwood) now known of this genus from Indo-Pakistan subcontinent. In this light their relationships are also briefly discussed.

Key words: Heteroptera, Coreinae, *Plinachtus acicularis*.

INTRODUCTION

Distant (1902) not only redescribed the gonocerine squash bug genus *Plinachtus* Stål known from Ethiopian, Oriental and eastern Palaearctic regions but also *P. acicularis* (F.) and *P. basalis* (Westwood) from Bhutan and Bombay in India and Srilanka and Bombay, Nilgiri Hills and Bangalore in India and Srilanka and Karennee in Teinzo, Burma respectively mostly on colour characters. Ahmad *et al.* (1977) keyed the genus *Plinachtus* Stål in the tribe Gonocerini Stål and recorded an undetermined species *i.e.* *Plinachtus* sp. from Kalam in NWFP as *Rosa* species but they cited in their key for *Plinachtus* sp. as *P. acicularis* and also in their illustration of figures without comment. Ahmad (1979, 1980) again keyed and recorded *Plinachtus* sp from Pakistan. *P. acicularis* (F.) is not definitely known from Pakistan and its genitalia remain unknown in the literature to date and it has never been separated from other known species *i.e.* *P. basalis* from Indo-Pakistan subcontinent. Presently, *P. acicularis* is not only redescribed with reference to its metathoracic scent auricles and genitalia but is keyed out from the only other known species *i.e.*, *P. basalis* from this region and the relationships of these taxa are also briefly discussed.

MATERIALS AND METHODS

One female specimen of *Plinachtus* sp from Pakistan Forest Institute, Peshawar (PFI) in NWFP was studied with reference to its metathoracic scent auricles and genitalia by the courtesy of Mr. Ismail Chaudhry a former Entomologist of the institute. Its determination was confirmed by comparing it with other authentically determined specimens of this taxon lodged at Natural History Museum London (BMNH) and compared with authentically determined specimens of *P. basalis* (Westwood) also lodged at this museum by the courtesy of Incharge Hemiptera Section Mr. Mick Webb and other authorities of this Museum. For the description, measurements, illustrations and dissection of the female genitalia the techniques of Ahmad and McPherson (1990, 1998) and Ahmad *et al.* (2000) were followed.

Plinachtus acicularis (F.)
(Fig. 1A-D)

Alydus acicularis Fabricius 1803: 251.
Plinachtus acicularis Stål 1868:62

Colouration

Body ochraceous: except anterior and lateral margins including humeral angles and white quadrangular patch on pronotum; scutellum, lateromedian margin of corium, basal antennal segment and all femora black; posterior margin of

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0030-9923/2007/0006-0401 \$ 8.00/0

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head light ochraceous; eyes reddish brown; ocelli pinkish; membrane of hemelytra hyaline.

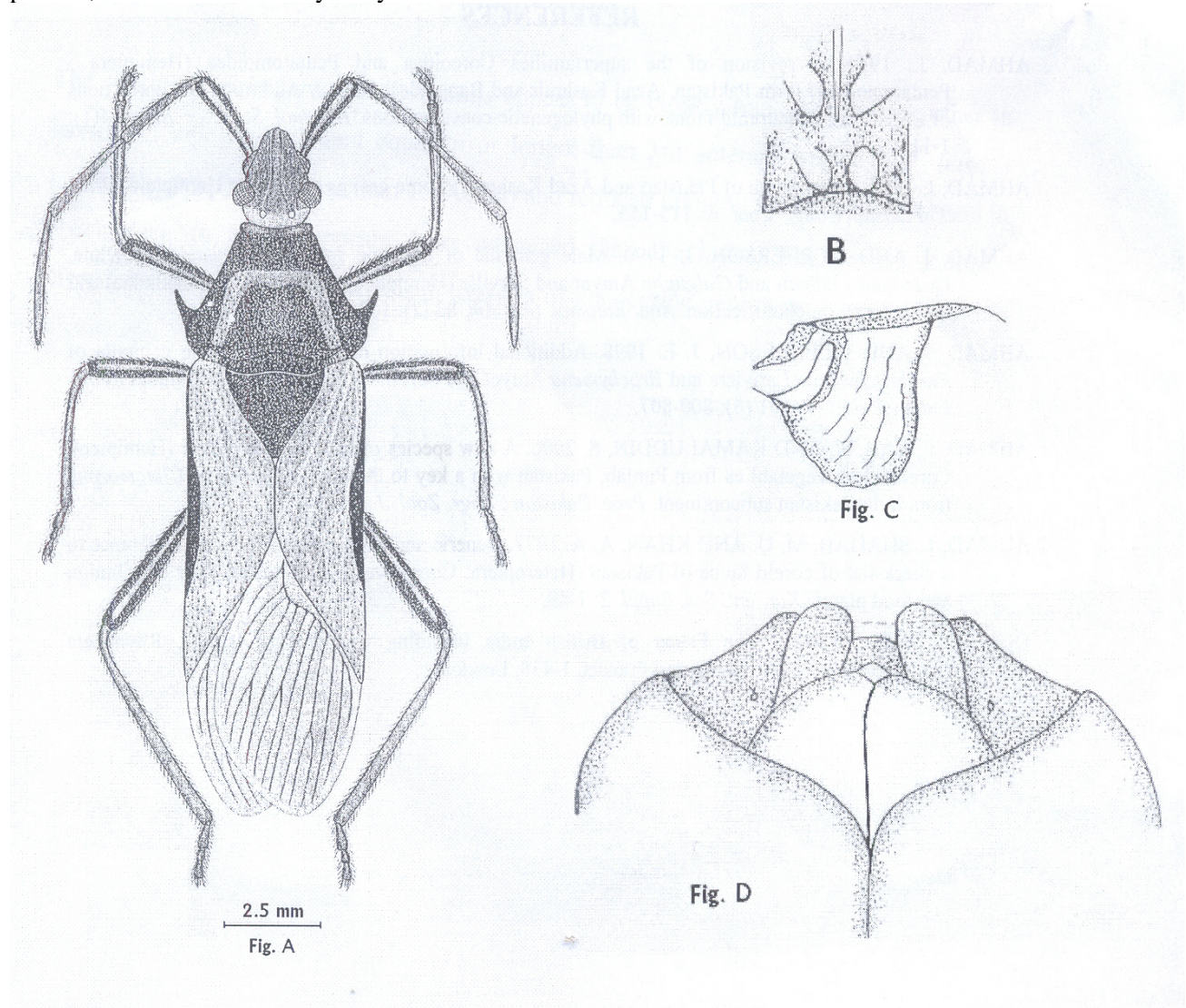


Fig. 1. *Plinactus acicularis* (F.); A, dorsal view (female); B, meso and metasternum with coxae showing the labial reach; C, metathoracic scent auricle, ventral view; D, female terminalia, ventral view.

Head

Triangular; clypeus slightly longer than paraclypei; antenniferous tubercle round; antecular distance slightly longer than remainder of head, antecular distance 1.25, length remainder of head 1.1; width of head 2.3; interocular distance 0.9; interocellar distance 0.6; antenna with basal segment smallest, length of segment I 2.3, II 2.6, III 2.7, IV 3.3; antennal formula I < II < III < IV ;

labium just passing beyond intermediate coxae (Fig. 1B).

Thorax and abdomen

Pronotum less than 2x broader than long, humeral angles of pronotum large thorne-like and forwardly produced, anterolateral margins straight, posterolateral margin smooth and posterior lobes prominent; pronotal length 3.5, width 5.3. Metathoracic scent complex with large ostiole,

auricle large, directed anteriad, evaporating (Fig.1C) area distinct; Scutellum triangular broader than long; length of scutellum 2.2; width 2.6; connexiva not exposed at repose; distance base scutellum apex clavus 4.0; apex clavus-apex corium 4.0; apex scutellum-apex abdomen including membrane 8.9; total length, female 16.9.

Female genitalia

Posterior margin of seventh abdominal sternum in the female generally concave medially with a median split on to more than ½ its length, first gonocoxae large triangular (fig. 1D), meeting each other, posterior margin highly convex, inner margin straight; 9th paratergites lobe-like, much longer than fused posterior margins of 8th paratergites; later with posterior margin concave; 2nd gonocoxae with posterior margins convex; posterior margin of proctiger convex.

Material examined

One female; "Pakistan": "NWFP", "Kalam"; "Rosa sp.", "06-08-1974", "leg, Chaudhry, I." lodged at PFI.

Comparative note

This species is most closely related to *P. basalis* (Westwood) having 4th antennal segment equal to or longer than 3rd, abdominal spiracles near but not close to lateral margins and humeral angles prominent and anteriorly produced but it can easily be separated from the same in having pronotum ochraceous tinged black, pronotal angles produced into large spines, directed upward and forward as compared to pronotum reddish ochraceous, humeral angles of pronotum produced into short spines slightly directed forward as in *P. basalis*.

Key to the species of *Plinactus* from Indopakistan subcontinent.

1. Humeral angles of pronotum with short spines, directed slightly forward but not upward, pronotum reddish ochraceous, first gonocoxae small more or less lobe like, not overlapping, shorter species measuring much less than 15.0 mm *P. basalis* (Westwood).
- Humeral angles of pronotum with prominently large spines, directed upward and well forward, pronotum ochraceous, tinged black, first gonocoxae large, triangular, overlapping each other, comparatively larger

species measuring more than 16.0 mm in length
..... *P. acicularis* (F.).

DISCUSSION

The species *P. acicularis* and *P. basalis* appear to be closely related with each other in having 4th antennal segment equal to or longer than 3rd antennal segment, *P. basalis* having shorter posture (less than 15.00mm) and reduced humeral spines in comparison to *P. acicularis* in length appears more advanced than the latter. The present authors, elsewhere, have carried out cladistic analysis of gonocerine genera showing apomorphic characters.

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(Received 19 March 2007, revised 14 May 2007)