

Studies on Indian species of *Sciocoris* Fallen (Heteroptera: Pentatomidae)

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Abstract

An Indian species of *Sciocoris* is redescribed. The female genitalic characters are incorporated with detailed illustrations.

Key words: *Sciocoris*, *lateralis*, genitalia

1. Introduction

This genus is represented by 24 species from the World, well distributed in Oriental, Ethiopian and Palearctic regions. The members are recognized by having lateral margins of pronotum laminate and with more or less distinct transverse discal impression and pro and mesosterna furrowed. Members of this genus have been reported as serious pests of various plants viz., *Astragalus* sp., *Euphorbia* sp., *Verbascum* sp., *Salvia* sp., *Sideritis* sp., *Quercus* sp., *Vitis vinifera*, graminaceous plants and different species of weeds.

Azim and Shafee (1987)^[1] provided a key to Indian species of *Sciocoris* Fallen^[6], but they did not incorporate *S. lateralis* Fieber^[5] and *S. luteo-fasciatus* Distant^[3] due to inadequate descriptions. They included five species i.e. *S. rufus* sp.n., *S. indicus* Dallas^[2], *S. funebris* Distant^[3], *S. lewisi* Distant^[3], *S. tamilnadensis* sp.n. Therefore, morphotaxonomy of *S. lateralis* Fieber^[5] is included herein with its complete description and morphometric details. The present article includes the detailed illustrations of its female genitalia also.

Three of these except

2. Materials and Methods

The bugs were collected from different localities of North Indian states i.e. Punjab, Haryana, Himachal Pradesh, Uttarakhand, NCR region of Delhi and parts of Jammu and Kashmir. For preparing the slides of external female genitalia, the abdomen was potashed in 10% KOH and boiled for 5-10 minutes on a gas burner. The potashed sclerites were removed to expose genital plate and spermatheca. The procedure and nomenclature for female genitalia of Scudder^[7] was adopted. The photographs of various external genitalic structures were taken by the digital camera installed in the DRS laboratory of the Department of Zoology and Environmental Sciences, Punjabi University, Patiala.

2.1 Genus *sciocoris* fallen

Sciocoris, Fallén (1829)^[6] *Hem. Suec.*, p. 20.

Type species - *Sciocoris terreus* Schrank, a Palearctic species.

Genus is diagnosed as follows:

Body oval, depressed, slightly convex beneath; head large, flattened, rounded in front, the lateral lobes a little the longest and meeting just in front of the central lobe, the margins laminate; labium about reaching the posterior coxae;

pronotum with the lateral margins laminate and with a more or less distinct transverse discal impression; scutellum gradually narrowed posteriorly, margins very slightly sinuate; membrane with the veins simple; pro and mesosterna furrowed.

Sciocoris lateralis Fieber



Fig 1: Adult



Fig 2: Head



Fig 3: Pronotum



Fig 4: Scent

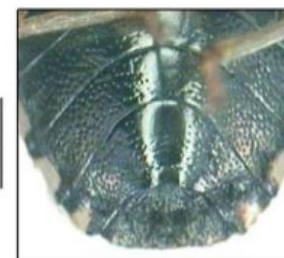


Fig 5: Female Abdomen

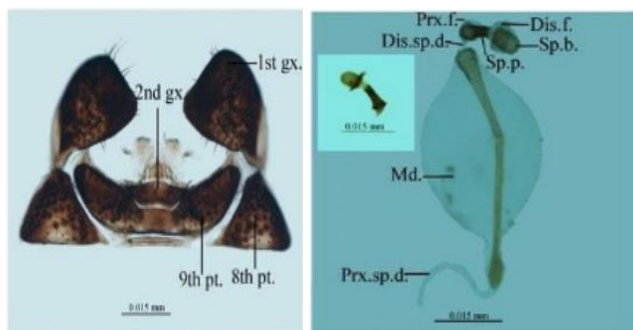


Fig 6: Genital Plate

Fig 7: Spermatheca

Sciocoris lateralis: Fieber (1851)^[5] *Rhynch.*, p. 21

2.2 Female

1. Measurements (mm): Head length: 1.10; width across eyes: 1.60; interocular space: 0.90; interocellar space: 0.55; preocular distance: 0.45; length of posterior head including eyes: 0.65; antennal segments lengths: I: 0.20, II: 0.35, III: 0.40, IV: 0.60, V: 0.65; pronotal length: 1.0; width across humeral angles: 1.70; scutellar length: 2.72; width: 2.72; length of abdomen: 3.50 maximum width of abdomen: 4.0; length of rostral segments: I: 0.50, II: 0.70, III: 0.50, IV: 0.50; Distance - base scutellum-apex clavus: 0.90, apex clavus-apex scutellum: 1.82, apex scutellum-apex abdomen including membrane: 1.92; total body length: 7.25.

2. Dorsal Coloration: Head pale brownish-yellow, coarsely punctured at base with dark brown and slight greenish tinge; disk striated with three lines (one central longitudinal, two arc shaped laterally); eyes reddish-brown, similar striations close to inner margin; ocelli bright red; antennae brownish-yellow, Vth segment darker; pronotum paler anteriorly with two black callosities, shining chocolate brown posteriorly marked with brownish-black punctures; lateral curved margins with somewhat Y-shaped longitudinal pale striation, posterior margin reaching humeral angle, inner margin reaching border of transverse callosity, impunctate; scutellum pale brownish-yellow punctured with brownish-black, apex impunctate pale with greyish tinge; base with three rounded levigate pale spots (one central, two angular); basal scutellar margin with distinct black impression; connexiva pale with black spots; corium pale, coarsely punctured with dark brownish, posterior margin profused with brown; hemelytral membrane hyaline with medial light brown suffusion.

3. Ventral Coloration: Labium brownish-yellow, segments IIIrd and IVth black; apex of head impunctate, brownish-yellow, lateral and central area densely punctured with black and greenish tinge; area between legs black; lateral margins of sternum lamellately punctured with black; legs yellow without spots, apices of tibiae and tarsi pilosed with brownish tinge; metathoracic scent gland oeteolar peritreme brownish-yellow with greyish tinge; abdominal disk black, finely punctured with black except central longitudinal area impunctate, shiny; connexiva with distinct central submarginal pale brownish-yellow U-shaped fascia on each abdominal segment; genital capsule black.

2.3 Structure

Head (Fig. 2): Head broad, declivent, flattened, subrugulose and subrounded at apex; paraclypei subequal to clypeus, slightly sinuous above eyes; longitudinal margins of clypeus parallel; antennae short, segment I not reaching apex of head; antennal segmental formula – I<II<III<IV<V; labium just passing mesocoxae, segment I not reaching apex of head, labial lengths formula – I=III=IV<II. Thorax: Pronotum (Fig. 3) slightly greater than width across eyes, latter touching anterior pronotal margins; anterior and lateral pronotal margins distinctly calloused; anterior pronotal margin concave with minute subacute spine directed laterad; posterior margin sinuously concave; humeral angles subprominent; scutellum narrowed at apex beyond frena; frenal region shorter than post frenal; metathoracic scent gland osteolar peritreme (Fig. 4) long, acuminate, distinctly narrowed at apex, covering half of sternite; evaporatorium well developed, with anterior margin reaching metapleural margin; legs without any modifications; tibiae and tarsi pilosed. Abdomen: slightly convex, flattened laterally; genital capsule pilosed; hemelytral membrane passing considerable beyond apex of abdomen; abdominal tubercle acute, long, reaching intermediate coxae in apposition to metasternum; prosternum and mesosternum furrowed; ventroanterior margin of abdominal sternite VII concave, inverted U-shaped, with subacute posterior angles (Fig. 5).

Female Genitalia: 1st gonocoxae medially placed, wide apart distally, posterior margins convex, obtuse at apices; 2nd gonocoxae distinctly short, with sinuate anterior and posterior margins; 8th paratergites long, triangular, posterior margins straight; 9th paratergites small, lobe like, not reaching fused posterior margins of 8th paratergites (Fig. 6); spermatheca (Fig. 7) with distinct proximal and distal flanges; pump region sclerotized and tube like, distinctly longer than distal spermathecal duct; bulb oblong, well developed but without any tubular outgrowth; medial dilation long; proximal spermathecal duct distinctly longer than distal spermathecal duct.

Population Variation: Single specimen studied.

Material Examined

Himachal Pradesh: Bilaspur, 21. x. 2010 - 1 ♀

Distribution: India (Himachal Pradesh, South India).

Remarks: The species is distinctly recognized in having clypeated and follaciously dilated head; 9th paratergites small, lobe like, not reaching the fused posterior margins of 8th paratergites; spermathecal bulb without any processes, pump region sclerotized and distinctly longer than distal spermathecal duct. It has not been reported as a pest till now. It is a new record from North India.

3. Acknowledgements

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3.1 Abbreviations

8th pt. - Eight paratergites; 9th pt. - Ninth paratergites; Sp. b. - Spermathecal bulb; Dis. f. - Distal flange; Prx. f. - Proximal flange; Dis. sp. d. - Distal spermathecal duct; Prx. sp. d. - Proximal spermathecal duct; Md. - Median dilation; Sp. p. - Spermathecal pump.

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