



Description of copulatory complex of *Metrocoris nepalensis*

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Received: 20.10.2017

Revised: 28.12.2017

Accepted: 14.03.2018

Abstract

This genus was first described by Mayr (1865) with the type species *Metrocoris brevis* Mayr, 1865. Eyes not completely covering lateral margin of pronotum. Metacubulum narrow, posterior margin simply oblique, not flattered on posterolateral angle. Fore leg with femur having conspicuous processes on inner margin in male. Anterior margin of first abdominal tergite bisinuate. Seventh segment ventrally strongly developed and modified in various shapes apically in female.

Key words: *Endosoma*, *Apical plate*, *membranous vulva*, *palearctic and oriental realms*

Introduction

The palaearctic and oriental realms (Annam, Arabia, Burma, Ceylon, China, Formosa, India, Japan, Korea, Malaya, Nepal, Persia). This genus is represented by twelve species in India. So far I have not come across any member of the species *M. communis*, Distant, *M. femoratus*, Paiva and *M. tenuicornis* Esaki. Future explorations are bound to reveal the presence of the members of these species.

Key to the species:

1. Endosoma with dorsal plate curved, apical plate forked, in female the inner margin of first valvulae strongly sclerotized *M. stali* Dohrn.

-Endosoma with dorsal plate straight, apical plate curved in female the inner margin of first valvulae mostly membranous 2.

Endosoma with dorsal plate greatly swollen, apical plate curved in a horse shoe manner, second valvulae very long extending upto tenth segment..... *M. miyamoti* sp.nov.

-Endosoma with dorsal plate not swollen in middle, apical plate not curved in a horse shoe shape manner, second valvulae very long but not extending upto tenth segment 3.

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3. Endosoma with ventral plate simple and not coiled 4.

-Endosoma apically coiled like spring 11.

4. Endosoma with notched apical plate and with an additional triangular sclerotized plate, lateral plate hemmer shaped, second valvulae distally narrow end curved *M. communis* Distant.

-Endosoma with apical plate spoon shape, lateral plate saw like, in female both the valvulae narrow and sclerotized distally 5.

5. Endosoma with lateral plate bilobed basally and acutely narrow distally, apical plate beak like *M. bilobatus* Den Boer.

-Endosoma with apical plate strongly curved, in female outer lobe of first valvulae strongly sclerotized..... 6.

6. Lateral plate of endosoma saw like, second valvulae greatly narrowing distally *M. nepalensis* Distant.

- Apical plate of endosoma hammer shape, lateral plate notched in the middle in female first valvulae sclerotized on entire inner margin..... 7.

7. Lateral plate broad both basally and distally and narrow in the middle, second valvulae blunt



- distally M. nigrofasciatus Distant.
- Lateral plate not broad on both ends, second valvulae acute narrow distally 8.
 - 8. Apical plate of endosoma undulating and fused with lateral plates, basal plate bilobed basally..... M. andersoni Chen & Nieser.
 - Apical plate of endosoma not undulating and not fused with lateral plate, basal plate not bilobed basally..... 9. - 9. Apical plate hood like, lateral plate triangular basally and narrow distally. First valvulae relatively short M. malabaricus Thirumalai.
 - Apical plate not hood like, lateral plate not triangular distally and basally. First valvulae not short..... 10. - 10. Endosoma with apical plate extending upwards and forming hook like structure, lateral plate club shaped, in female second valvulae triangular apically..... M. compar White.
 - Endosoma with apical plate extending downwards and then forming a hook like structure, lateral plate triangular, second valvulae long, and sclerotized apically M. ponali Singh & Gupta. - 11. Endosoma with basal plate bifid apically, ventral plate forming fore or more coils like a spring, lateral plate narrow and cylindrical in middle and broad at both ends M. tennicornis Esaki.
 - Endosoma without bifid apical plate, ventral plate forming less than four coils apically, lateral plate not narrow in middle 12. - 12. Ventral plate greatly swollen in the middle, entirely membranous, lateral plate narrow and curved upward apically..... M. velamentus Chen & Nieser.
 - Ventral plate greatly sclerotized entirely, lateral plate hammer shaped and strongly sclerotized basally, apical plate lobed and curved upwardly..... M. variegans Thirumalai.

Metrocoris nepalensis Distant, 1910

(Pl. I, Figs. 1-2)

Metrocoris nepalensis Distant, 1910, Ann. Mag. Nat. Hist., 5(8):148.

Metrocoris nepalensis Distant, 1910, Faun. Brit. India, Rhynchota, 5:158, Fig. 85.

Metrocoris nepalensis Lundblad, 1933, Arch. Hydrobiol. Suppl. Bd., 12:371, 373.

Metrocoris nepalensis Den Boer, 1965, Zoologische Verhandelingen, 74:18.

Male genitalia: Seventh segment ventrally distinctly longer than sixth segment, concave on ventral apical margin. Eighth segment broadly rounded on apical margin dorsally, feebly concave on apical margin ventrally; pygophore rounded on apical margin; parameres well developed and conspicuous. Endosoma with definitive dorsal plate reaching apical margin of endosoma, turned and fused with apical plate; ventral plate indistinctly fused with basal margin of dorsal plate, ventral plate membranous apically, reaching apical margin of endosoma; lateral plate long, somewhat projecting in ventral direction near base. Second pair of lateral plates not visible.

Female genitalia: Seventh segment strongly developed ventrally, enclosing eighth segment basally. First valvula with inner lobe short, sclerotized and fused to membranous vulva; outer lobe long, narrow, acute at apex. Second valvula narrow, pointed apically; intervalvular membrane with concave apical margin. Vulva membranous.

Material examined : INDIA : U.P., Uttar Kashi, River Yamuna, winged 35 males, 42 females, apterous 46 males, 61 females, 30.v.1973 (Raj Tilak); Pauri, Rudraprayag, apterous 16 males, 13 females, 20.xi.1999 (J.V. Singh).

Distribution: Previously recorded from Nepal by Distant (1910). This is the first record of this species from India (Uttar Pradesh).

Remarks: The description of the species by Distant (1910) is not complete. The species is described in detail with genitalia is described for the first time.



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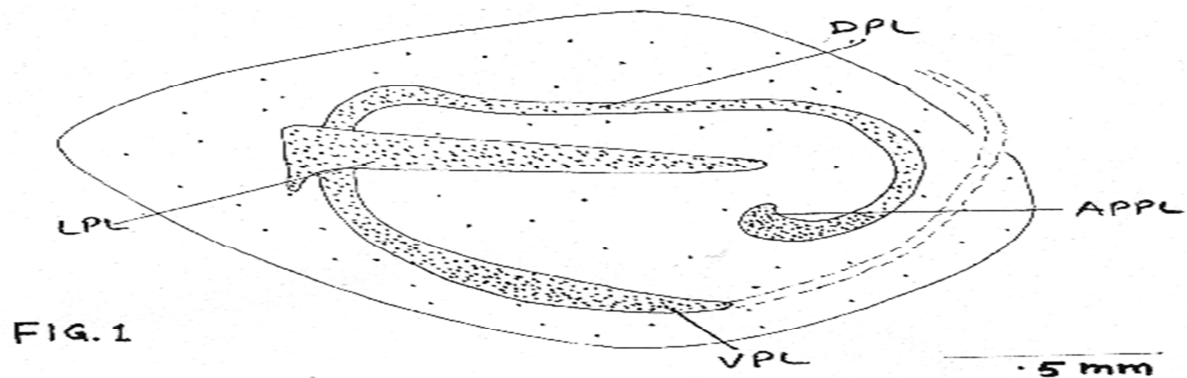


FIG. 1

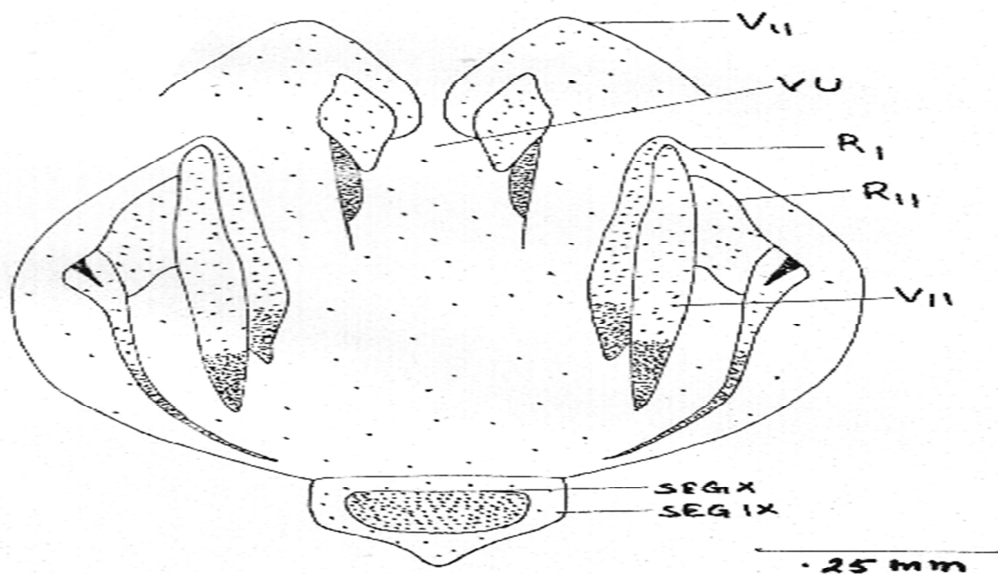


FIG. 2

PL. II

Metrocoris nepalensis Distant, 1910 (Pl. I, Figs. 1-2)

Fig.1. Male copulatory complex.

Fig.2. Female copulatory complex.

A. Male Copulatory Complex.

APPL = Apical Plate
BPL = Basal Plate
DPL = Dorsal Plate
LPL = Lateral Plate
Py = Pygophore
SEG = Segment
SUAPL = Suranal Plate
VPL = Ventral Plate

VU = Vulva
V = Valvula
OUV = Outer valvulae
INV = Inner Valvulae
VF = Valvifer

B. Female Copulatory Complex.

Ri/Rii = Ramus

Acknowledgment: The authors express her indebtedness to Dr. Suman Kumar, Principal, B.S.A. College, Mathura for facilities for work and to Dr. G.K. Srivastava, Additional Director, Z.S.I., Kolkatta for his help and suggestions during the course of investigation.



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