

Research Article

## First record of *Neogerris assimilis* Anderson, 1975 from India with Description of Copulatory Complex

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**Abstract:** The genus *Neogerris* is recorded for the first time from India. The copulatory complex, a feature of a great taxonomic significance is studied and described for the first time.

**Keywords:** *Neogerris assimilis*, Anderson, Copulatory complex.

### Introduction

*Neogerris* Matsumura genus was first described by Matsumura (1913) with the *Neogerris boninsis* Matsumura as the type species. Hungerford and Matsuda (1958), Matsuda (1960) described *Limnagonellus* as a subgenus of *Limnagonus* Stal with the *Gerris parvula* (Stal), 1868 as type species. Anderson, 1975 (1) established the synonymy of *Limnagonellus* Hungerford and Matsuda, 1958 (3) with *Neogerris* Matsumura, 1913 (5).

### Taxonomy

#### *Neogerris* Matsumura, 1913

*Neogerris assimilis* Anderson, 1975. *Entomologica Scandinavica, Suppl.*, 7:90-91.

*Limnagonus parvulus* Cheng and Fernando, 1969. *Oriental Insects*, 3(2):102.

#### Key to species of *Neogerris*

- Pygophore with hind margin evenly rounded. Ednosoma with apical plate hammer shaped. Ventral plate acutely pointed distally. First valvulae weakly apically sclerotized. Second valvulae sclerotized along entire inner margin .....*N. parvula* Stal, 1859.
- Pygophore with hind margin straight. Ednosoma with apical plate bifid distally. Ventral plate slightly

rounded and feebly depressed apically. First valvulae strongly sclerotized apically. Second valvulae sclerotized only apically .....*N. assimilis* Anderson, 1975.

**Description:** Body elongate. Pronotum with an oval or rounded yellowish spot on anterior lobe. Antenna shorter than the body length, with first segment a little shorter than or equal to second and third segments together; fourth segment only a little longer than third. Clypeus with poorly defined basal margin. Rostrum slender, a little surpassing hind margin of prosternum. Pronotum not fully prolonged. Intersegmental suture between mesonotum and metanotum not retained laterally. Metathoracic spiracle located at distance from pronotum. Metasternum with distinct omphalium. Omphalial groove absent. Hind leg shorter than middle leg. Claws lost on middle legs. Abdomen moderately shortened. Connexivum not terminating in spines. Ventral margin of connexivum represented by two-dot like depressions on each segment. Abdominal spiracles located in middle of each segment.

**Distribution:** Worldwide. This genus is represented by two species in India.

#### *Neogerris assimilis* Anderson, 1975

(Pl. I, Figs. 1-2)

**Male genitalia:** Ventral apical margin of seventh segment simply concave. Eighth segment with ventral

apical margin broadly concave; pygophore almost rectangular with nearly straight apical margin; parameres absent. Endosoma without apical prolongation; definitive dorsal plate fused with bifurcated apical plate, basal plate triangular, ventral plate membranous and triangular in shape, lateral plates elongated.

connexivum without spine; ventral apical margin more or less bisinuate, only slightly protruding in middle. Eighth segment basally telescoped within tubular seventh segment. First valvula not well sclerotized with well-differentiated inner lobe reaching about middle of outer lobe; outer lobe narrow at apex. Second valvulae membranous, broad apically, extending beyond apical margin of intervalvular membrane.

**Female genitalia:** Seventh sternum a little longer than combined length of fifth and sixth sterna (13:6);

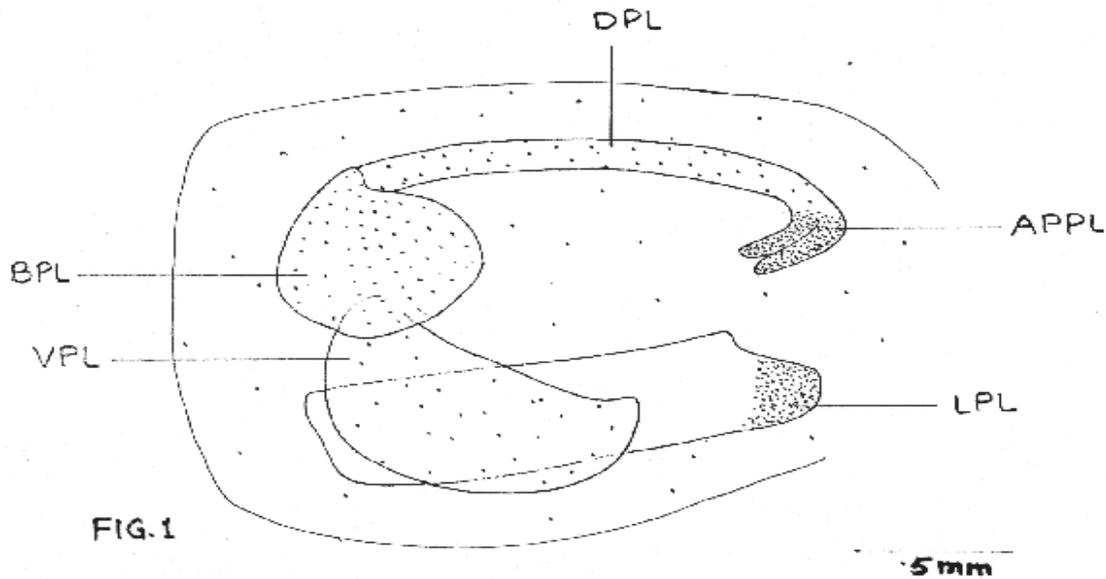


Fig. 1. Male Copulatory Complex.

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

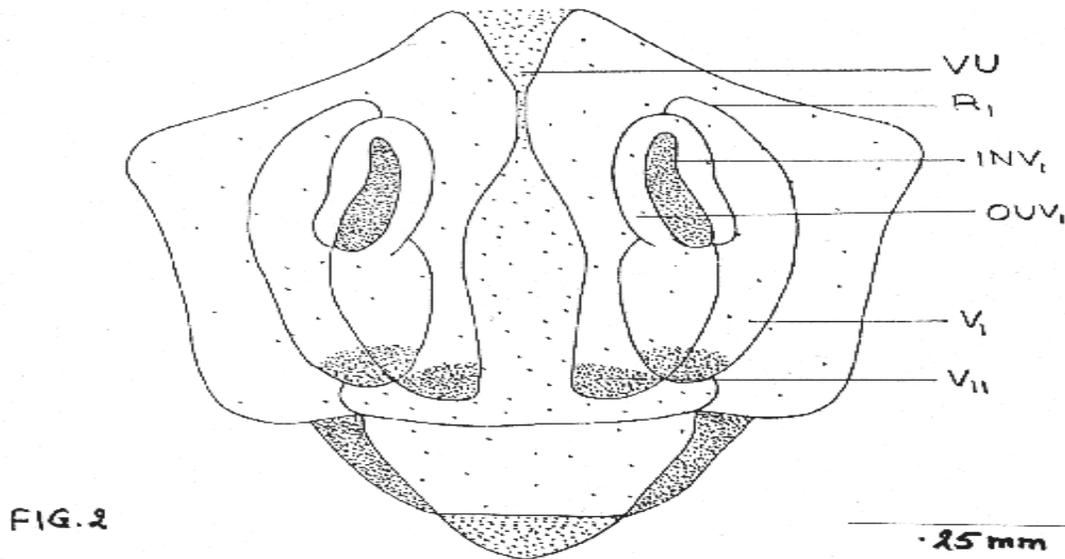


Fig. 2. Female Copulatory Complex.

(Ri/Rii = Ramus; VU = Vulva; V = Valvula; OUV = Outer Valvulae; INV = Inner Valvulae; VF = Valvifer).

**Material examined:** India, Himachal Pradesh, Simla, apterous 3 males, 6 females 24.xi.,1978, Solan, apterous 5 males, 3 females, 14.xi.,2000 (J.V. Singh); U.P., Dehradun, Robber's Cave, apterous 4 males, 3 females 11.xi.1978 (Sushma Gupta); Rajasthan, Mount Abu, apterous 6 males, 7 females, 14.x.1975 (Y.C. Gupta).

**Distribution:** This species was described by Anderson (1) from Borneo, Malaya and Sumatra. It is distributed worldwide. This is the first record of this species from Himachal Pradesh, Uttar Pradesh and Rajasthan in India.

**Remarks:** The previous description of the species is inadequate. The copulatory complex has not been taken into account. The species has been recorded for the first time from India with remarkable identification.

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