

**REDESCRIPTION OF *USILANUS DENOTATUS* DISTANT, 1909
(HEMIPTERA: LYGAEIDAE) FROM ANDAMAN AND
NICOBAR ISLANDS, A NEW TO INDIA**

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ABSTRACT: Present study deals with the report of the species *Usilanus burmanicus* Distant, 1909 belonging to family Lygaeidae and order Hemiptera from Andaman and Nicobar Islands, a new record to India.

KEY WORDS: *Usilanus denotatus*, Lygaeidae, Andaman and Nicobar Islands

Andaman and Nicobar Islands are a group of more than 500 islands and islets are located in Bay of Bengal. The tropical rain forests of these islands house a very rich and unique diversity of animal life. Lygaeidae is one of the large and diverse families of order Hemiptera, representatives often referred as seed bugs. The family is characterized by the presence of Ocelli, except in brachypterous form, bucculae well developed, antennae located through middle of eye. There are about 500 genera and 4000 species known worldwide of this family.

Four species of genus *Usilanus* viz., *U. burmanicus*, *U. denotatus*, *U. maculipennis*, *U. pictus* are known globally (Slater, 1964) and *U. burmanicus* was reported from India by Chandra *et al.* Of these, *U. denotatus* was earlier reported from Myanmar and China (Distant 1909) has been presently reported from Andaman and Nicobar Islands, is new record to India. *Usilanus denotatus* belong to subfamily Rhyparochrominae is characterized by the brown or black and white color form, cephalic trichobothria usually present, fore femora incrassate, strongly armed, usually curving forward antero-laterally from midline of sternum.

MATERIAL AND METHODS

While undertaking the surveys of various parts of Andaman and Nicobar islands, for the inventorisation of insect fauna, an interesting specimen of Lygaeidae was also collected by the first author, which was later identified as *Usilanus denotatus* Distant, a new record to the family Lygaeidae fauna from these islands. Identified specimen was pinned and added to the National Zoological Collection of Hemiptera section in Zoological survey of India, Kolkata. Analysis and photography (Figs.) was done by a Leica Stereozoom Microscope (Leica M205A).

OBSERVATION AND RESULTS

Systematic account

Order: Hemiptera

Suborder: Heteropteroidea

Infraorder: Pentatomorpha

Superfamily: Lygaeoidea

Family: Lygaeidae
Subfamily: Rhyparochrominae

Genus: *Usilanus* Distant, 1909

Type species: *Usilanus burmanicus* Distant, 1909

Distribution: India and Myanmar.

***Usilanus denotatus* Distant 1909**

1909. *Usilanus denotatus* Distant A.M.N.H. (8) III: 341.

1910. *Usilanus denotatus* Distant Fauna Brit. India, Heteroptera, V: 84-85.

Material examined: Andaman and Nicobar Islands, Port Blair, 20.8.1992 Coll. K.Chandra (1 Ex).

Description: The species *Usilanus denotatus*, Distant was described by Distant (1902) without any illustrations, required for the accurate determination of species and hence the description of the species along with detailed measurements, illustrations and additional diagnostic features based on observations are provided.

Original Description (Distant, 1910): Piceous black; less than basal half of pronotum and anterior and lateral pronotal margins, clavus and corium, lateral margins of sternum and posterior lateral angles of prosternum, abdomen beneath, first and second joints of antennae castaneous brown; rostrum and legs ochraceous, basal joint of rostrum and the anterior femora castaneous; margins of the clavus paler; inner apical area to corium piceous, containing pale spots; membrane fuscous-brown; head with the apex of the central lobe prominent; first joint of antennae considerably shorter than second; rostrum with the first joint slightly passing base of head; pronotum shorter than breadth at base, the lateral margins obliquely rounded, faintly transversely impressed a little behind middle, the basal pale area somewhat coarsely punctate, the posterior angles margined with piceous, the posterior margin moderately concavely sinuate; scutellum sparingly punctate, more strongly punctate along the lateral margins; clavus longitudinally punctate; corium irregularly punctate; membrane slightly passing the abdominal apex; anterior femora obtusely spined beneath.

New Description: Body above black, lateral margin of corium ochraceous, antennae black, 2nd and 4th joint almost equal in length and 3rd longest, Head and sternum black, abdomen black, rostrum ochraceous, legs black, anterior femora, apices of intermediate and posterior femora tibiae and joints of tarsal black, posterior lobe coarsely punctate, scutellum finely punctate, apical area of scutellum have a callas; eyes piceous.

Measurements: BODY; Total length from head to membrane 5.40 ± 0.05 mm; EYES: length 0.317 mm, width 0.287 mm, black in color; HEAD: length 0.710 mm, ROSTRUM: Total length 3.79 ± 0.03 mm, First joint 0.99 mm, Second joint 0.71 mm, Third joint 0.97 mm and fourth joint 0.82 mm. Rostrum with the second joint reaching middle of ante-ocular portion of head, third joint reaching to the prothorex, fourth slightly shorter than third and reaching to the mesothorex; LEGS- FORE LEG: length (excluding tarsi) 4.643 ± 0.05 mm, length of Coxa 0.641, length trochanter 0.501 mm, femur length 1.43 mm, tibia length 0.860 mm, length of 1st, 2nd and 3rd tarsal joints 0.052 mm, 0.160 mm and 0.278 mm respectively; Claw 0.143 mm in length; tarsi 3-jointed; MID LEG: Total length (excluding tarsi) 4.359 ± 0.05 mm, Length of Coxa 0.486, femur length 2.077 mm, tibia length 1.796 mm. Femora annulated with piceous white at apices; HIND LEG: Total length (excluding tarsi) 25.697 ± 0.05 mm, Length of Coxa 0.332, Length of Trochanter 0.327 mm, Femur length 2.552 mm, Tibia length

3.087 mm, Length of 1st, 2nd and 3rd Tarsal joints 0.155 mm, 0.281 mm and 0.363 mm respectively. Femora annulated with piceous at apices, Claw 0.101 mm; PRONOTUM: Length of anterior lobe of pronotum 1.30 mm, Width of anterior lobe of pronotum 1.101 mm, Length of posterior lobe of pronotum 0.720 mm, Width of posterior lobe of pronotum 2.10 mm; HEMELYTRON: Length 5.004 mm, width 1.385 mm, Hemelytra passing abdominal apex; ABDOMEN: Length 6.51 mm; SCUTELLUM: Length 0.867 mm.

Distribution: India (Andaman and Nicobar Islands).

Elsewhere: Myanmar and China.

DISCUSSION

This study about the *Usilanus denotatus* Distant will add a new record to the Lygaeidae fauna of India and will also enrich the information on fauna of Andaman and Nicobar Island. The finding of such rare bug species from these Islands show that this area is very rich and many more such species are expected, if further extensive and intensive surveys are undertaken.

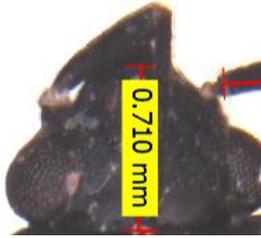
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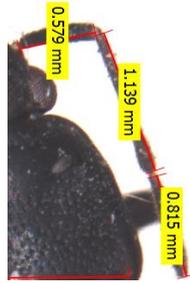
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Scutellum



Antenna



Abdomen and Legs



Rostrum



Scutellum



Genital organs