

## FOUR NEW RECORDS OF REDUVIIDAE FROM JAMMU AND KASHMIR, INDIA (HETEROPTERA: HEMIPTERA)

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ABSTRACT: The paper presents the new record of four species viz. *Ectomocoris ochropterus* Stal, *Spilodermus quadrinotatus* Fabricius, *Oncocephalus fuscinotum* Reuter and *Coranus fuscipennis* Reuter of the family Reduviidae from the state of Jammu and Kashmir, India. Key to the different taxa and distributions of each species in India and abroad have been included.

KEY WORDS: Hemiptera, Reduviidae, Jammu and Kashmir

The family Reduviidae is the largest family of predaceous terrestrial hemiptera and a few are blood suckers. Some of them are pathogenic and transmit various diseases to man and animals. They are commonly known as "assassin bugs" and occurs throughout the world but mostly common in tropical forest ecosystem than any other ecosystems. It belongs to the suborder Heteroptera under the order Hemiptera of Division Exopterygota: Pterygota of class Insecta. There are about 6878 described species and subspecies under 981 genera belonging to 25 subfamilies of the family Reduviidae recorded from the world (Henry, 2009). Of which, 465 species under 144 genera belonging to 14 subfamilies are recorded from India (Biswas & Mitra, 2011).

While working on Indian Reduviidae, we have been able to sort out a number of examples collected from Jammu and Kashmir by Raj Tilak and party of Zoological Survey of India (1964). Prior to study, 9 species under 6 genera belonging to three subfamilies viz. Stenopodainae, Reduviinae and Harpactorinae (Distant 1904, 1910) were recorded from Jammu and Kashmir. No comprehensive work has been yet done from this state so far. Present study is based on four new records from the state of Jammu and Kashmir viz. *Ectomocoris ochropterus* Stal and *Spilodermus quadrinotatus* Fabricius of Peiratinae, *Oncocephalus fuscinotum* Reuter of Stenopodainae and *Coranus fuscipennis* Reuter of Harpactorinae.

### MATERIALS AND METHODS

This study is based on the materials collected during field surveys by different survey parties of Zoological Survey of India from Jammu and Kashmir. The specimens are deposited in the National Zoological Collection of Zoological Survey of India, Hemiptera Section, Kolkata. Measurement and photographs of the species were taken with the aid of Leica M 205A. All measurements are in millimetres.

### RESULTS AND DISCUSSION SYSTEMATIC LIST

Suborder **HETEROPTERA**  
Infraorder **CIMICOMORPHA**

Family **REDUVIIDAE**Subfamily **HARPACTORINAE**Genus *Coranus* Curtis, 1833*Coranus fuscipennis* Reuter, 1881Subfamily **STENOPODAINAE**Genus *Oncocephalus* Klug, 1830*Oncocephalus fuscinothum* Reuter, 1882Subfamily **PEIRATINAE**Genus *Ectomocoris* Mayr, 1865*Ectomocoris ochropterus* Stal, 1866Genus *Spilodermus* Stal, 1868*Spilodermus quadrinotatus* (Fabricius, 1798)**SYSTEMATIC ACCOUNT****Key to the subfamilies of the family Reduviidae**

1. Hemelytra with a quadrangular areolet or cell at interior area of corium near base of membrane.....HARPACTORINAE  
 -. Hemelytra without a quadrangular areolet or cell at interior area of corium near base of membrane.....2
2. Hemelytra with a discoidalareolet or cell somewhat hexangular and touching base of membrane or largely triangular.....STENOPODANINAE  
 -. Hemelytra without a discoidalareolet or cell.....PEIRATINAE

**Subfamily HARPACTORINAE****Genus *Coranus* Curtis, 1833**1833. *Coranus* Curtis, Brit. Ent., 10: 453.***Coranus fuscipennis* Reuter, 1881 (Fig. 1)**1881. *Coranus fuscipennis* Reuter, Acta Soc. Sci. Fenn., 12: 275.1904. *Coranus fuscipennis*, Distant, Fauna Brit. India, Rhynchota, 2: 381.2006. *Coranus fuscipennis*, Ambrose, Zoos' Print Journal, 21 (9): 7.**Material examined:** 1 ex., INDIA: Jammu and Kashmir: Udhampur District: Arsa Nala: 11 km West of Chineni on Srinagar Road, 2.X.1964, coll. Raj Tilak.**Diagnostic character:** Body black, sparsely covered with hair; antennae black, first segment, clay colour; corium pale yellowish brown, reddish brown on apical area; clavus, membrane, abdomen beneath black; femora nodulose totally black, sometime annulated with reddish brown band; tibiae, tarsi black, annulated with brownish yellow band near base and apex; scutellum with an erect conical spine; posterior lobe of pronotum densely granulate.**Length:** 9-10 mm.**Distribution:** India: Jammu and Kashmir (Udhampur), Andhra Pradesh, Maharashtra, Madhya Pradesh, Meghalaya, Tripura, Uttarakhand, Tamil Nadu, West Bengal.**Elsewhere:** China, Indonesia.**Subfamily STENOPODAINAE****Genus *Oncocephalus* Klug, 1830*****Oncocephalus fuscinothum* Reuter, 1882 (Fig. 2)**1830. *Oncocephalus* Klug, Symb. Phys., 21882. *Oncocephalus fuscinothum* Reuter, Acta. Soc. Sc. Fenn., 12: 731.1904. *Oncocephalus fuscinothum*, Distant, Fauna Brit. India, Rhynchota, 2: 229.2006. *Oncocephalus fuscinothum*, Ambrose, Zoos' Print Journ., 21 (9): 25.**Material examined:** 1 ex., INDIA: Jammu and Kashmir: Udhampur District: JuhuiNala: Jhajjar: 1 mile west of Srinagar road bridge, 8.X.1964, coll. Raj Tilak.**Diagnostic character:** Head, pronotum and body beneath dark brown; hemelytra, rostrum, legs and apex of scutellum brownish yellow; a yellowish spot behind each eye; apical areas of femora, obsolete medial annulations to same, basal, medial and apical annulations to tibiae and base of rostrum reddish; membrane mottled with paler colouration; antennae with first and second segment reddish, first segment slightly shorter

than antecular area of head which is longer than postocular but not twice as long; connexivum spotted with brownish yellow above and beneath.

**Length:** 11.5 mm.

**Distribution:** India : Jammu and Kashmir (Udhampur), Madhya Pradesh. **Elsewhere:** West Pakistan.

#### Subfamily PEIRATINAE

##### Key to the genera of the subfamily Peiratinae

1. Spongyfurrowoccupying more thanhalf of anteriortibiae.....**Ectomocoris** Mayr
- . Spongyfurrowoccupyingless or not more thanhalf of anteriortibiae.....**Spilodermus** Stal

#### Genus *Ectomocoris* Mayr, 1865

1865. *Ectomocoris* Mayr, Verh. Zool. Bot. Ges. Wien., 15: 438.

##### *Ectomocoris ochropterus* Stal, 1866 (Fig. 3)

1866. *Ectomocoris ochropterus* Stal, Ofv. K. Vet. Ak. Forh., 23: 256.

1904. *Ectomocoris ochropterus*, Distant, Fauna Brit. India, Rhynchota, 2: 294-295.

2006. *Ectomocoris ochropterus*, Ambrose, Zoos' Print Journal, 21 (9): 16.

**Material examined:** 1 ex., INDIA: Jammu and Kashmir: Udhampur District: JhajjarNala: 1km upstream from Srinagar bridge, 6.X.1964, coll. Raj Tilak.

**Diagnostic character:** Body black; first segment and basal area of second segment of antennae, rostrum, clavus, corium, basal third of membrane, lateral areas of abdomen and legs yellowish brown; inner margin of clavus, a linear fascia near lateral margin of corium and apex of membrane brownish yellow; second segment of antennae shorter than anterior lobe of pronotum and granulate; legs finely granulate.

**Length:** 19-20 mm.

**Distribution:** India: Jammu and Kashmir (Udhampur), Bihar, West Bengal. **Elsewhere:** Egypt, Eritrea, Ethiopia.

#### Genus *Spilodermus* Stal, 1868

1868. *Spilodermus* Stal, Hem., 1: 122.

##### *Spilodermus quadrinotatus* (Fabricius, 1798) (Fig. 4)

1798. *Reduvius quadrinotatus* Fabricius, Ent. Syst. Suppl., p.544.

1904. *Pirates quadrinotatus*: Distant, Fauna Brit. India, Rhynchota, 2: 300.

2006. *Spilodermus quadrinotatus*: Ambrose, Zoos' Print Journal, 21 (9): 18.

**Material examined:** 1 ex., INDIA: Jammu and Kashmir: Udhampur District: near Julin Nala and its union with river Tawi, 28.X.1964, coll. Raj Tilak.

**Diagnostic character:** Body black, legs with greyish hairs; posterior lobe of pronotum, scutellum, clavus, corium, posterior margin of prosternum, cinnamon- brown; posterior inner area of corium black; membrane with one anterior and posterior spots and a line on basal margin white; spots to connexivum above and beneath, apices of coxae, bases of intermediate and posterior femora brownish yellow; second joint of antennae as long as pronotum.

**Length:** 9-10.5 mm.

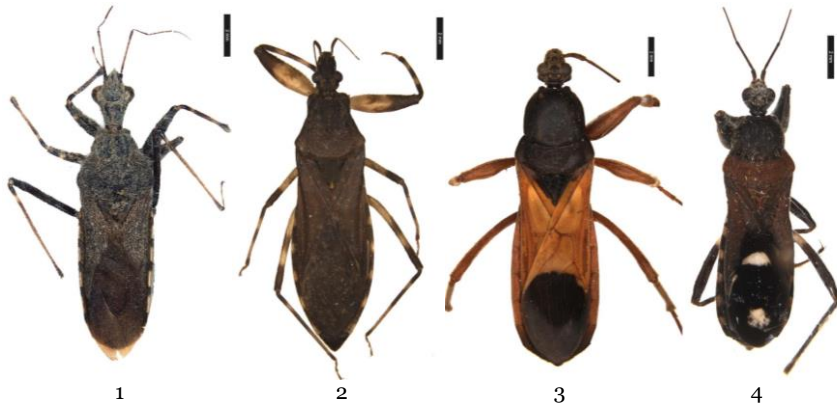
**Distribution:** India: Jammu and Kashmir (Udhampur), Chhattisgarh, Tamil Nadu. **Elsewhere:** Sri Lanka, Bangladesh.

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## LITERATURE CITED

- Ambrose, D. P.** 2006. A Checklist of Indian Assassin bugs (Insecta: Hemiptera: Reduviidae) with taxonomic status, distribution and diagnostic morphological characteristics. *Zoos' Print Journal*, 21 (9): 2388-2406 (plus web supplement of 34 pages).
- Biswas, B. & Mitra, B.** 2011. Checklist on Indian Assassin Bugs (Insecta: Hemiptera: Reduviidae). *Zool. Surv. India*: 1-33.
- Distant, W. L.** 1904. The Fauna of British India including Ceylon and Burma, Rhynchota, 2: 198-389.
- Distant, W. L.** 1910. The Fauna of British India including Ceylon and Burma, Rhynchota, 5: 169-217.
- Henry, T. J.** 2009. Biodiversity of Heteroptera. In: Robert, G. F. & Piter, H. A. (Eds.), *Insect Biodiversity Science and Society*, Blackwell Publishing Ltd., 224-263.
- Klug, J. C. F.** 1830. *Symbolae physicae, seu icons et descriptiones insectorum, quae ex itinere per African borealem et Asian F. G. Hemprich et C. H. Ehrenberg studio novae aut illustrate redierunt*. Berolini, 2.
- Maldonado, C.** 1990. Systematic Catalogue of the Reduviidae of the World (Insecta: Heteroptera). *Carribbean J. Sci.* (special ed.), University of Puerto Rico, 1-694.
- Mayr, G. L.** 1865. Diagnosen neuer Hemipteren I und II. *Verh. Zool. Bot. Ges. Wien.*, 15: 429-446.
- Reuter, O. M.** 1881. Ad cognitionem Reduviidarum mundi antiquae. *Acta. Soc. Sci. Fenn.*, 12: 269-339.
- Reuter, O. M.** 1882. Monographia generis *Oncocephalus* Klug proximeque affinium. *Acta. Soc. Sci. Fenn.*, 12: 673-758.
- Schuh, R. T. & Slater, J. A.** 1995. *True bugs of the World (Hemiptera: Heteroptera) Classification and Natural History*, Cornell University press, Ithaca, USA, 1-336.
- Stal, C.** 1866. Bidrag till Reduviernas Kaennedom. *Ofv. K. Vet. Ak. Forh.*, 23: 235-302.



Figures 1-4. 1. *Coranus fuscipennis* Reuter, 2. *Oncocephalus fuscinitum* Reuter, 3. *Ectomocoris ochropterus* Stal, 4. *Spilodermus quadrinotatus* (Fabricius).