



Family Cydnidae (Pentatomidae: heteroptera: hemiptera) from Dumna Nature Park, Jabalpur, India

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Abstract

Two species of family Cydnidae namely *Adrisa magna* and *Macroscytus brunneus* are reported from Dumna Nature Park. Both the species are reported for the first time from the Park.

Keywords: cydnidae, antennae, punctuate, pronotum, dumna nature park

1. Introduction

Bugs belonging to family Cydnidae are commonly known as burrower bugs. They are mostly ground living Pentatomorpha. They are mostly phytophagous, feeding on roots while few are mycetophagous (Lis, 2006) [4]. There are about 700 species of this family belonging to 89 genera and mostly found in the tropical regions of the world (Lis, 2013) [5]. One among their diagnostic characters is male genitalia are symmetrical while as female ovipositor is plate-like structure. There are 28 genera and 72 species of this family reported from India (Biswas, 2013) [1].

The state of Madhya Pradesh is located in the center of India and lies between 210 to 250 N and longitudes 740 to 840 E. Jabalpur district lies in the Eastern half of Madhya Pradesh. Geographically it lies between 23° 10' North latitude and 79° 59' East longitude with a total geographic area of 5211 sq. km. Dumna Nature Park (DNP) is located (23° 10' North latitude and 80° 1' East longitude) on Dumna Airport Road in district Jabalpur. The Park has an area of 1058 ha is a mixed forest under Jabalpur Municipal Corporation managed by the Department of Forestry, government of Madhya Pradesh. DNP is almost unexplored area, only few species of Hymenoptera and Hemiptera have been reported so far (Sheikh *et al.*, 2016ab; Sheikh *et al.*, 2017abcef) [6, 7, 8, 9, 10, 11, 12]. In the present paper, we report Cydnidae fauna collected from the Park.

2. Methodology

Two sampling methods viz. Sweep Net and Light Trap were used to collect the species belonging to Sphecidae family during 2015. However, both the sampling techniques were equally effective for the collection of Cydnidae bugs.

3. Results

Two species of family Cydnidae viz. *Adrisa magna* (Uhler, 1830) and *Macroscytus brunneus* (Fabricius, 1803) are reported first time from the Dumna Nature Park. The systematic position and systematic account is as under:

3.1 Systematic list

Order Hemiptera

Suborder	Heteroptera
Superfamily	Pentatomoidea
Family	Cydnidae
Subfamily	Cydninae
Genus	<i>Adrisa</i> Amyot and Serville, 1843
1. Species	<i>Adrisa magna</i> (Uhler, 1830)
Genus	<i>Macroscytus</i> Fieber, 1861
2. Species	<i>Macroscytus brunneus</i> (Fabricius, 1803)

3.2 Systematic Account

Genus: *Adrisa* Amyot and Serville, 1843

Diagnostic Characters

Antennae only four jointed, owing to the fusion of the second and third joints; first joint short, not extending beyond the anterior margin of the head; rostrum with the second joint thickest and longest, the fourth shortest; body oval, slightly convex; corium twice as long as the membrane.

1. *Adrisa magna* (Uhler, 1830) 1830.

Acatalectus magna Uhler, *Proc. Ac. X. S. Phil.*, 222 1902.
Adrisa magna (Uhler), Distant, *Fauna Brit. India, Rhynchota*, 1:89.

Diagnostic Characters

Head rounded in front, the lateral margins wrinkled, strongly punctate, and very finely and obscurely meeting in front of the median lobe; body black and punctured, the punctuation more or less confluent; scutellum wrinkled and punctate, with a more or less distinct central carinate line; pronotum sub-square, the anterior angles rounded, the pronotal disk punctured excepting a smooth space on the anterior area; corium thickly punctate; membrane fuliginous, brownish. Length: 16 mm (Fig. A).

Material examined: India: Madhya Pradesh, Jabalpur district, Dumna Nature Park, 17.x. 2014, Coll. Altaf Hussain Sheikh.

Distribution: Most states of India; Elsewhere: China, Myanmar, Pakistan, Sri Lanka (Chandra and Kushwaha, 2012) [2].

Genus: *Macroscytus* Fieber, 1861

Diagnostic Characters

Central lobe as long as lateral lobes of head; first and second joints of the antennae light brown, the third shorter than the second; femora spinose beneath, posterior femora with two stout spines at apex.

2. *Macroscytus brunneus* (Fabricius, 1803)

1803. *Cydnus brunneus*, Fabricius, *Syst. Rhyn.*: 18. 1902. *Macroscytus brunneus* (Fabricius), Distant, *Fauna Brit. India, Rhynchota*, 1: 95.

Diagnostic Characters

Head rounded in front, central lobe as long as lateral lobes, with 5 to 6 hairs along the margin; colour deep brown; rostrum, base of antennae, and the tarsi light brown, corium glossy; first and second joints of the antennae light brown, the third shorter than the second; pronotum convex in front, transversely flattened, without an impression; corium almost flat, finely punctuate; finely punctured on the disk; membrane hyaline, veins infuscated; tarsi yellow, all the femora spinose beneath, posterior femora with two stout spines at apex. Length: 8 mm (Fig. B).

Material examined: India: Madhya Pradesh, Jabalpur district, Dumna Nature Park, 15.x. 2014, Coll. Altaf Hussain Sheikh.

Distribution: All over India; Elsewhere: Africa, China, Myanmar, Sri Lanka and Europe (Chandra and Kushwaha, 2012) [3].

4. Conclusion

The present paper reports two species viz. *A. magna* and *M. brunneus*, belonging to family Cydnidae from Dumna Nature Park. Both the species are reported for the first time from the Park. These species have been reported by Chandra (2008) [2] from the Madhya Pradesh. However, from DNP, this is the first instance to report these species.

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Fig 1: A. *Adrisa magna* and Fig. B. *Macroscytus brunneus*

6. References

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