



NEW RECORD OF A LANTERNFLY (HEMIPTERA: FULGORIDAE) FROM ANDAMAN AND NICOBAR ISLANDS

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ABSTRACT

Lantern flies are true bugs belong to family Fulgoridae under Order: Hemiptera. *Penthicodes atomaria* (Weber, 1801) is newly reported insect from Andaman Islands based on collected sample and observation from South and North Andaman. This paper presents detailed taxonomic characters of the species and a list of species reported in the family Fulgoridae from Andaman and Nicobar Islands is given with its distribution.

KEYWORDS: Hemiptera, Fulgoridae, Lantern flies, Andaman and Nicobar.

INTRODUCTION

The family Fulgoridae is a large group of hemipteran insects, especially abundant and diverse in the tropics, containing over 125 genera worldwide. They are mostly of moderate to large size, many with a superficial resemblance to Lepidoptera due to their brilliant and varied coloration. *Penthicodes* is genus of lantern flies belonging to the family Fulgoridae. The genus *Penthicodes* is widely distributed in South Eastern Asia including India, Vietnam, Southern China, Sulawesi and Taliabu. Presently only ten species are recognized in the genus *Penthicodes*, two species in the subgenus *Penthicodes* (*farinosa* with five subspecies and *nicobarica*) and eight species in the subgenus *Ereosoma* (*astraea*, *atomaria*, *basigera*, *bimaculata*, *caja*, *pulchella*, *rugulosa*, *variegata*) worldwide (Constant, 2010). In Andaman and Nicobar Islands very little work has been done on this group, only seven species of fulgorid has been reported to till date (Distant, 1906; Biswas *et al.*, 1992).

MATERIALS & METHODS

The Andaman and Nicobar archipelago consists of 572 islands and extending over 800 km geographical range extending from Naga Hills and Arakan Yoma of Burma through Cape Negrais to the Andaman and Nicobar Islands and southeast Aceh of Sumatra, between 6° 45' and 13° 30' N latitudes and 90° 20' and 93° 56' E longitudes with an area of 8,249 km² which is broadly divided into two groups: Andaman and Nicobar group of Islands separated by the Ten-degree Channel which is about 150 km wide and 400 fathoms deep. The specimen was collected at night on light trap placed at Botanical survey of India Garden located at Nayasahar (Lat: 11° 34.421' N; Long: 92° 40.8746' E) South Andaman during general faunal survey of the area. The species level identification of the specimen was made using the keys given by Constant, 2010. The dry preservation was

made to the specimen and deposited (Reg. No. T-4362 dated 28.12.2016) in National Zoological Collection of Zoological Survey of India, Port Blair, Andaman & Nicobar Islands.

RESULTS

The specimen was identified as *Penthicodes (Ereosoma) atomaria* (Weber, 1801) based on two large black spot on tegmina and the consultation of literature revealed that the species is new to Andaman Islands. The systematic position given below and list of reported species in the Family and its distribution in Andaman and Nicobar islands has been added (Table 1).

Systematics

Class: Insecta Linnaeus, 1758

Order: Hemiptera Linnaeus, 1758

Family: Fulgoridae Latreille 1807

Genus: *Penthicodes* Blanchard (1845)

Subgenus: *Ereosoma* Kirkaldy 1906

Species: *Penthicodes (Ereosoma) atomaria* (Weber, 1801)

***Penthicodes (Ereosoma) atomaria* (Weber, 1801) (Fig: 1 A-D)**
1801. Weber, F. *Cicada atomaria*, *Rhyngota. Observationes entomologicae, continentis novorum quae condidit generum characteres, et nuper detectarum specierum descriptiones*, pp. 112-115. [113]

Synonyms

Cicada atomaria Weber, 1801

Lystra atomaria (Weber, 1801)

Aphaena nigropunctata Guérin Méneville, 1838

Penthicodes picta Blanchard, 1849

Penthicodes atkinsoni Schmidt, 1923, Nagai & Porion, 1996

Material Examined: 1 ex. (Dry)(Fig. 1 A-D); Coll. Manish Ch. Patel & Party; near stream, at BSI Garden, Nayasahar (Lat. 11° 34.421' N; Long. 92° 40.8746' E), South Andaman on 09.11.2016; one individual was observed and

photographed on 07.07.2015 in near stream at Saddle Peak NP, Khudirampur (Lat. 13° 11.541' N; Long. 92 68 164 E), North Andaman.

Diagnosis: Head and Pronotum is paler brown than mesonotum; wings purplish-red or pale ochraceous; Tegmina with two large black spots on costal cell, without any spots on membrane, in which, one spot is present on distal before the apical reticulated area and other one on claval area. One white patch along sutural margin on nodal line is also present; Legs I and II dark black uniformly; disc of hind wings reddish with 6–14 black spots in 3 rows

and 4-5 small white spots are also present; abdominal tergites are red sometimes black medio-basally.

Measurements: Total body length: 23 mm (Apex to tip of anal appendage); Tegmina: 25 mm; Hind wing: 20 mm; Wing span: 54 mm.

Distribution

India: Punjab, Assam, Sikkim and Andaman & Nicobar Islands (Present record)

Elsewhere: Bhutan, Cambodia, Indonesia (Borneo, Java, Sumatra), Laos, Malaysia, Thailand and Vietnam (Bourgoin, 2016; GBIF, 2016).

TABLE 1: Distribution of Fulgorids from Andaman and Nicobar Islands

S. No.	Family FULGORIDAE	Andaman Is.	Nicobar Is.
1.	<i>Kalidasa paulinia</i> (Signoret)	+	
2.	<i>Laternaria andamanensis</i> (Distant)	+	
3.	<i>Laternaria delesserti</i> (Guier-Meneville)	+	
4.	<i>Laternaria rogersi</i> Distant		+
5.	<i>Laternaria viridirostris</i> (Westwood)	+	
6.	<i>Penthicodes nicobarica</i> Stal*		+
7.	<i>Penthicodes (Ereosoma) pulchella</i> (Guir)	+	
8.	¹ <i>Penthicodes (Ereosoma) atomaria</i> (Weber, 1801)	+	

(+) Present; (-) absent; ¹present record; * endemic

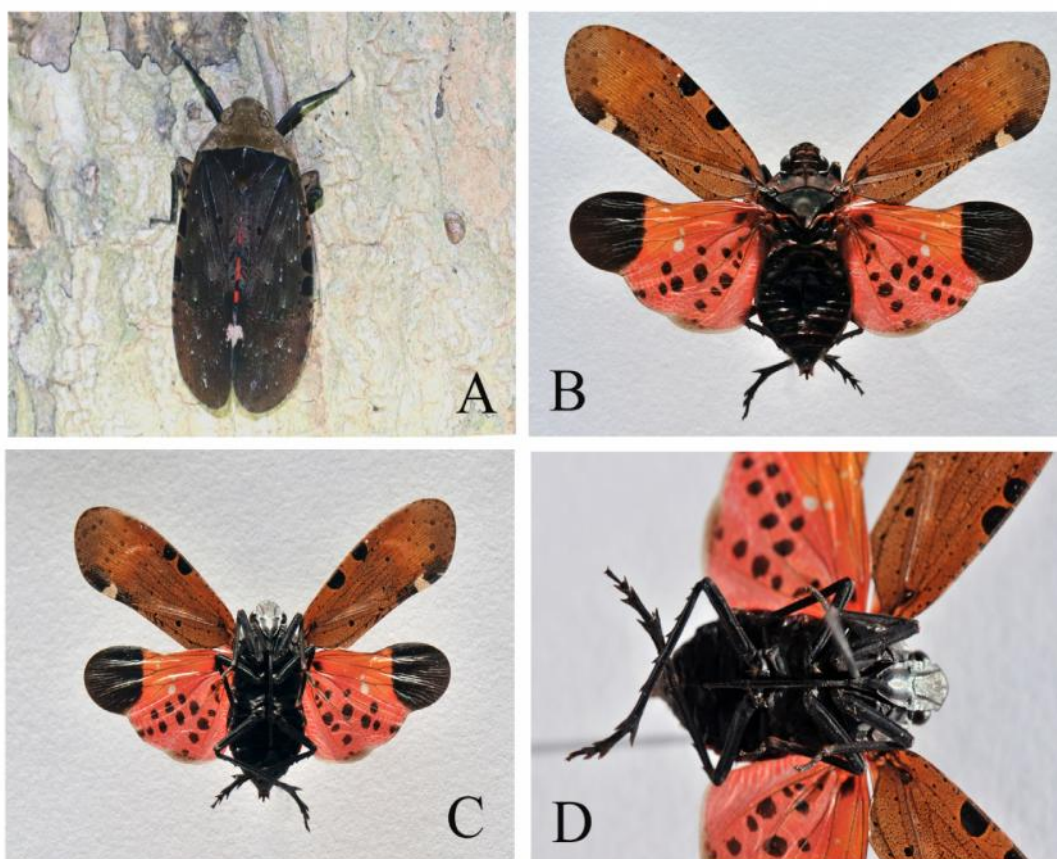


FIGURE 1 A. *Penthicodes atomaria* (Weber, 1801) in habitus; B. Dorsal view; C. Ventral view
D. Enlarged view of rostrum

DISCUSSION

In Andaman and Nicobar Islands seven species of Leafhoppers (Hemiptera: Fulgoridae) are reported earlier,

among them two species (*P. nicobarica* and *P. pulchella*) found under the genus *Penthicodes* (Distant, 1906; Constant, 2010). The presently recorded *P. atomaria* is new addition to

the fulgorid fauna of Andaman Islands (Table 1). The occurrence of present species is very rare from South Andaman as well in North Andaman though no report is available for its distribution in Nicobar Islands which warrants intensive further surveys in future.

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