J. Entomol. Res. Soc., 19(3): 53-57, 2017 *ISSN:1302-0250*

A New Species of the Genus *Lathromeroidea* Girault, 1912 (Hymenoptera: Chalcidoidea: Trichogrammatidae) from India

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ABSTRACT

A new species of *Lathromeroidea* Girault (Hymenoptera: Chalcidoidea: Trichogrammatidae*)* was described under *Lathromeroidea longiciliata* sp. nov. based on female and male specimens from Punjab, India.

Key words: Indian Trichogrammatidae, *Lathromeroidea,* new species.

INTRODUCTION

Lathromeroidea Girault, 1912 is an important group of natural egg parasitoids, mainly attacking the aquatic insect pests (Pinto, 2006). *Lathromeroidea silvarum* Nowicki 1936 was reared from eggs of water scavenger beetles (Hydrophilidae) and predaceous water diving beetles (Dytiscidae) in rice paddy field in Japan (Fursov, 2005). The genus *Lathromeroidea* contains 13 species worldwide including *L. ajmerensis* Yousuf and Shafee 1988, *L. angustipennis,* Yousuf and Shafee 1984, *L. araguensis* De Rios 2007, *L. domestica* Girault 1920*, L. exemplum* Pinto 2006, *L. gerriphaga* Pinto 2006, *L. hisarensis* Ikram and Yousuf, 2016, *L. longiclavata,* Viggiani and Velasquez 2007, *L. multidenta* Hu, Lin and Won, 2008, *L. nigra* Girault 1912*, L. nigrella* Girault 1912*, L. silvarum* Nowicki 1936 and *L. trichoptera* Lin 1994, of which four described species (*L. ajmerensis*, *L. angustipennis, L. hisarensis* and *L. nigrella*) have been recorded from India, In present paper one new species: *Lathromeroidea longiciliata*, sp. nov. is described.

MATERIAL AND METHODS

Five specimens (2♀♀, 3♂♂) of *L. longiciliata* were collected with sweep net by the author from different localities of Punjab, India in the year 2013 and preserved in 70% ethanol. All specimens were dissected in clove oil under microscope and their antennae and forewings were mounted in Canada balsam for taxonomic study and description (Yousuf and Shafee, 1988). All measurements and photographs were taken from at 20×, 40×, and 100 × magnification of Leica compound microscope with photographic attachment (Leitz laborlux s).

The specimens are deposited in the National Forest Insect Collection (NFIC), Forest Entomology Division, Forest Research Institute, Dehradun (Uttarakhand) India.

The following abbreviations are used: C1, C2, C3, C4, and C5 (Claval segments 1, 2, 3, 4, 5), GC (genital capsule).

RESULT

Lathromeroidea longiciliata, sp. nov. (Figs. 1- 9)

Holotype ♀ labelled India, Punjab: Jalandhar, Hazara (31˚ 19' N, 35˚18'E), 11.11.2013, coll. M. Ikram. Paratype. Same data as holotype except Merah for the female (1♀, 2♂♂); Punjab: Nawanshahr, Mandipur, 30˚ 57' N, 76˚ 32'E (1♂).

Description

Female. Body length 0.46 mm (meso and metanotum only). Body brown; head light brown; ocelli and eyes dark red. Antennae honey yellow. Mesosoma (Fig. 4) brown, forewing (Fig. 6) hyaline except an infuscated patch behind stigmal vein and sub marginal veins. Legs brown, ovipositor sheaths yellowish brown.

Head wider than high in facial view (65:50) (Fig. 1); ocelli arranged in obtuse triangle; Mandible with four denticles (Fig. 3). Maxillary palp one-segmented and well developed. Antenna with scape cylindrical, 2.8× as long as broad (53:19) (Fig. 2); pedicel 1.6× (35:22) as long as wide and slightly broader than scape (22:19); flagellum with two annular segments (A1, A2) and five claval segments (C1-C5). A2 closely attached to C1; clava with long and stout setae; about 2.4×as long as broad (70:29); widest at the level of distal part of C3; C1 much smaller than other claval segments; C4 slightly shorter than C5 segment; C2 and C3 wider than other segments, C5 about 2× as long as wide.

Mesosoma. Mid lobe of mesoscutum slightly wider than long (35:42); scutellum about 1.8× as wide as long (40:22) (Fig. 4); triangle pronotum shorter than metanotum (30:64), mesophragma extending up to second segment of gaster. Fore wing disc with dense and long setae (Fig. 6), arranged in straight lines; 2.8× as long as wide (85:30); costal cell narrow, shorter than marginal vein; stigmal vein well developed; marginal fringe 0.43× as long as maximum wing width (13:30); RS1 present with four setae (Fig. 7).

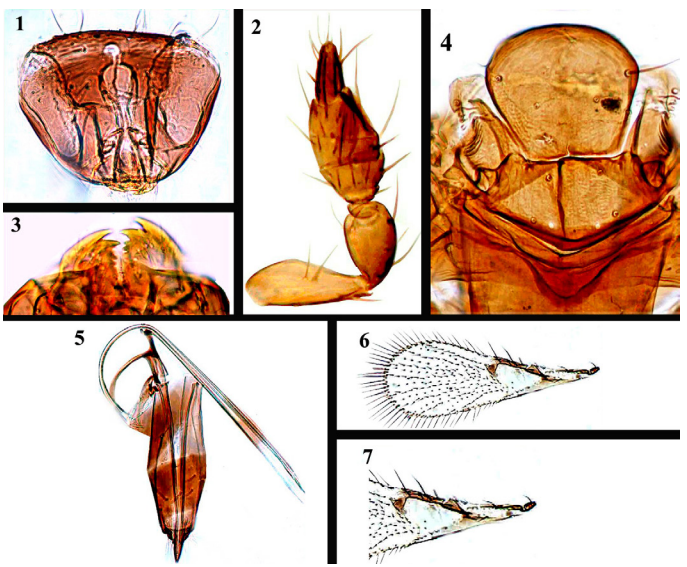
Metasoma. Gaster longer than mesosoma (80:47); ovipositor long and originating from the base of gaster and slightly exerted to 1.15× of gaster length (Fig. 5), 1.9× longer than meta tibia length (53:28), legs brown with stiff bristles, propodeum short, with distinctly enlarged triangular median part.

Male. Similar to female. Body length 0.42 mm (meso + metanotum only) a little shorter than female. Antenna with clava about 2.6× as long as wide (31:12) (Fig. 8); C5 segment pointed at apex and 1.3× as long as wide (8:6); pedicel 1.3× as long as wide (16:12) and slightly wider than scape (12:10); scape 2.7× as long as broad (27:10); with three-four setae and three hairs; pedicel with four hairs, gaster longer

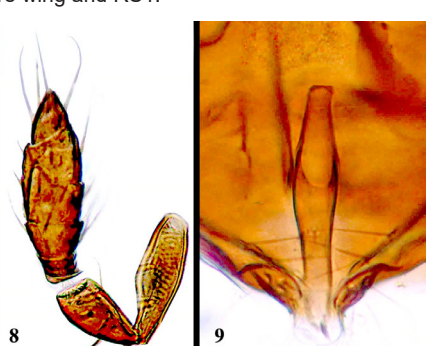
than thorax (110:70), genital capsule tubular with dorsal aperture 0.49× as long as genital capsule (17:35) (Fig. 9); meta-tibia about 2.3× as long genital capsule (80:35).

Etymology. The specific name is derived from the character of antennal clava having long and stout setae.

Host. Unknown.



Figs. 1-7. *Lathromeroidea longiciliata* sp. nov. (Female) 1. Head, 2. Antenna, 3. Mandibles, 4. Mesosoma, 5. Ovipositor, 6 and 7. Fore wing and RS1.



Figs. 8-9. *Lathromeroidea longiciliata* sp. nov. (Male) 8. Antenna, 9. Genitalia.

DISCUSSION

This species was compared with important key characters of *L. ajmerensis* Yousuf and Shafee, 1988 and *L. silvarum* Nowicki, 1936 as shown in table 1.

Table 1. Key characters of *L. longiciliata* vs. *L. ajmerensis* and *L. silvarum*

Characters	*L. longiciliata* (sp. nov.)	*L. ajmerensis*	*L. silvarum*
		Female	
Antennal clava length	Antennae with clava 2.4× as long as wide; 1.35× as long as scape, slightly shorter than hind tibia; C5 segment about 2× as long as wide; maxillary palps elongated, 2.5× as long as wide	Antennae with clava more than 2.5× as long as wide, C5 segment about 1.5× as long as wide	Antenna with clava 2.8× as long as wide; 1.17-1.24× as long as scape, 0.46-0.47× as long as hind tibia, maxillary palps elongated, 3.64× as long as wide
Fore wing length	Fore wings 2.8× as long as wide; submarginal vein with 3 long and 2 short hairs; marginal vein with 2 strong setae and 4 small hairs on posterior margin; RS1 bears 4 long setae; longest fringe setae 0.43× as long as maximum wing width.	Fore wings more than 2.5× as long as wide; RS1 bears 3 long setae; longest fringe setae less than 0.33× as long as maximum wing width,	Fore wings 2.5× as long as wide; submarginal vein with 2 long and 2 short hairs, marginal vein with 3 strong setae and 3 small hairs on posterior margin.; RS1 bears 10 long setae; longest fringe setae 0.37× of maximum wing width.
Length of ovipositor	Ovipositor exerted and 1.9× longer than length of hind tibia.	Ovipositor hidden.	Ovipositor 1.7× longer than meta tibia.
		Male	
Length of antennal clava	Antenna with clava 2.6× as long as wide.	----------	Antenna with clava 3× as long as maximum width.
GC (genital capsule) shape and length	GC (genital capsule) narrow tubular with dorsal aperture 0.49× as long as genital capsule	----------	Genital capsule narrow, tube like, dorsal aperture 0.39× as long as genital capsule.

ACKNOWLEDGEMENTS

The authors are greatly indebted to Dr. Savita the Director, Forest Research Institute, Dehradun (Uttarakhand) India for providing research facilities.

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Received: October 20, 2016 *Accepted: July 11, 2017*