

**DESCRIPTION OF A NEW SPECIES OF THE GENUS
LITUS HALIDAY (HYMENOPTERA: CHALCIDOIDEA:
MYMARIDAE) FROM INDIA**

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The genus *Litus* Haliday, 1833 (Hymenoptera: Mymaridae) is represented by only 15 species across the world (Noyes 2015). Rehmat et al. (2009) recorded the genus from India and described two new species. The genus can be distinguished from other genera of the family by the robust and highly sclerotized head and mesosoma, and very long and narrow wings with long marginal fringe. In this paper, we describe a new species of the genus *Litus* from a female collected in Assam (India), and provide a key to the Indian species. The specimen is deposited in Insect Collections, Department of Zoology, Aligarh Muslim University, Aligarh, India (ZDAMU).

Methods

Absolute measurements in millimeters are given for body length only; all other measurements are relative, taken with the help of an ocular micrometer having a linear scale of 100 divisions, placed in the eye piece of a compound microscope. All the measurements were made at the same magnification for all the parts.

***Litus assamensis* sp. nov.
(Image 1 A–G)**

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Material examined: Holotype: HYM.CH.719, female (on slide under 4 coverslips); Kontola, Guwahati (26.1833°N & 91.7333°E), Assam, India, 28.x.2008, coll. F.R. Khan, ZDAMU.

Etymology: The species name is derived from the name of the state (Assam) from where the holotype was collected.

Description

Female: Body length, 0.35mm (measured from slide mounted holotype).

Body colour (taken from slide mounted specimen) dark brown except distal last tergite of gaster and legs light brown. Antenna dark brown. Fore wing hyaline; hind wings subhyaline.

Head (Image 1A): Frontovortex broad, about 0.9× of head width; frons without a row of denticles; ocellar triangle with apical angle strongly obtuse; posterior ocelli nearly touching supraorbital trabecula; antennal torulus removed from transverse trabecula by a distance equal to diameter of a torulus; frons with several minute tubercles; vertex with wide-meshed reticulations; temples strongly reticulate. Mandible unidentate, slightly longer than malar space (Image 1A). Antenna (Image 1B) with scape with longitudinal striations; pedicel longer than first funicle segment

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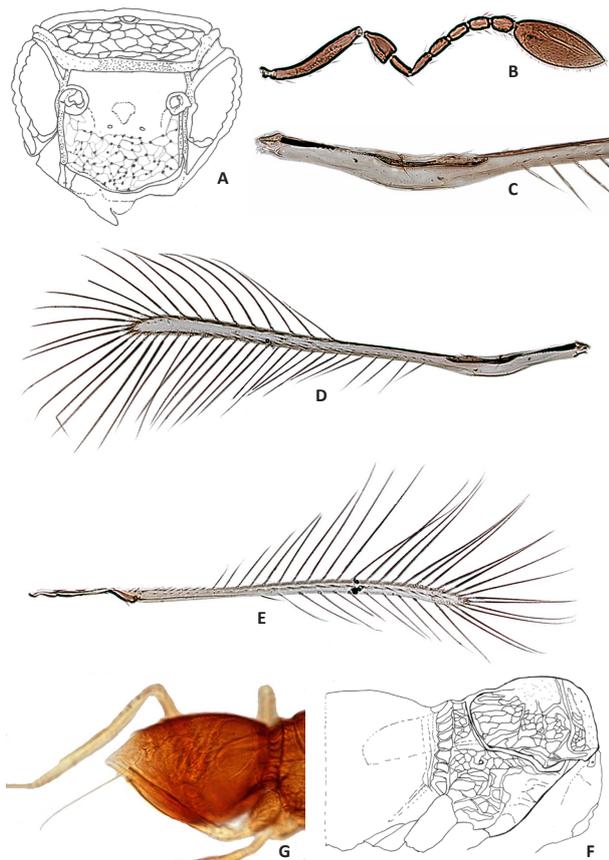


Image 1. *Litus assamensis* sp. nov. female (Holotype) (HYM.CH.719)

A - head; B - antenna; C - fore wing; D - fore wing basal part enlarged; E - hind wing; F - Mesosoma lateral; G - Metasoma, lateral.

(F1), covered with fine longitudinal striations; all funicle segments longer than broad; F1 and F3 equal in length; F2 longest; F4, F5 and F6 subequal in length; F6 slightly broader than preceding five funicle segments individually; clava about 2.4× as long as wide, much longer than preceding five funicle segments (F2–F6) combined, and with four longitudinal sensillae. Relative measurements of antennal segments; length (width):

scape, 50(7); pedicel, 16(9); F1, 11(4); F2, 12(4); F3, 11(4); F4, 10(4); F5, 10(5); F6, 10(7); clava, 44(18).

Mesosoma (Image 1F) compact, strongly sculptured, except pronotum lightly sculptured and short; mesoscutum slightly longer than half of scutellum, with raised reticulate sculpture, and with 2+2 setae, notular lines not clear; each axilla with one seta; scutellum with raised reticulations except anterior scutellum; propodeum with reticulation and with one seta on each side distal to spiracles. Fore wing (Image 1C,D) 26× as long as broad, disc almost bare except two setae present in the middle of the disc and a row of setae along anterior and posterior margin (about 18 setae). Hind wing (Image 1E) 33.3× as long as broad, disc with a line of setae. Legs with sclerotized coxae.

Metasoma (Image 1G) longer than mesosoma (75:55); first tergite of gaster (= T1) long and covering three-fifths of gaster length; last tergite (= TVII) conical; ovipositor (Image 1F) short, as long as length of mid tibia; 0.7× of hind tibia length; about 0.6× of gaster length and not exerted.

Male: Unknown.

Hosts: Unknown.

Distribution: India: Assam.

Comments: This new species appears to be very similar to *Litus sutil* Triapitsyn & Berezovskiy (2004), but differs in the following characters: antennal pedicel with longitudinal striations, clava 2.5× as long as wide; fore wing 26× as long as broad; ovipositor 0.6× of gaster length (In *L. sutil*: pedicel without longitudinal striations, clava 3.5× as long as broad; fore wing 21× as long as broad; ovipositor 2.07× of gaster length). The new species also differs from other two Indian species by the characters given in the key.

References

Haliday, A.H. (1833). An easy on the classification of the parasitic Hymenoptera of Britain, which corresponds with the *Ichneumons minuti* of Linnaeus. *Entomological Magazine* 1: 259–276, 333–350.

Key to Indian species of *Litus* (Females)

1. Anterior margin of frons with denticles (Rehmat & Anis 2009; Image 3); clava length subequal or slightly shorter than five preceding funicle segments combined (Rehmat & Anis 2009; Images 1A,F) 2
- Anterior margin of frons without denticles (Image 1A); clava length longer than five preceding funicle segments combined (Image 1B) ***L. assamensis* sp. nov.**
2. Ovipositor originates from near base of gaster, and strongly exerted at apex (Rehmat et al. 2009; Image 11), exerted part 0.39× of gaster length; ovipositor 1.98× as long as mid tibia and 1.48× as long as hind tibia *L. triapitsyni* Rehmat & Hayat
- Ovipositor originates from basal fourth of gaster and very slightly exerted (Rehmat et al. 2009; Image 1F), the exerted part about 0.17× of gaster length; ovipositor 1.65× as long as mid tibia and 1.30× as long as hind tibia *L. huberi* Rehmat & Anis

- Noyes, J.S. (2015).** Universal Chalcidoidea Database, World Wide Web electronic publication. Available from <http://www.nhm.ac.uk/entomology/chalcidoids/index.html> (accessed on 15 March 2015).
- Rehmat, T., S.B. Anis & M. Hayat (2009).** Record of the Genus *Litus* Haliday (Hymenoptera: Chalcidoidea: Mymaridae) from India, with description of two species. *Journal of Threatened Taxa* 1(7): 370–374; <http://dx.doi.org/10.11609/JoTT.o2199.370-4>
- Triapitsyn, S.V. & V.V. Berezovskiy (2004).** Review of the genus *Litus* Haliday, 1833 in the Holarctic and Oriental regions, with notes on the Palaearctic species of *Arescon* Walker, 1846 (Hymenoptera: Mymaridae). *Far Eastern Entomologist* 141: 1–24.

