# A NEW ORIENTAL BLERA (DIPTERA: SYRPHIDAE)1

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ABSTRACT: The only known *Blera* from the Oriental Region is described and named *himalaya* (HTO The Natural History Museum, London)

INTERPRETATIVE SUMMARY: A new pollinator is described and illustrated. The information will enable conservationists, ecologists and systematists to identify the species and will contribute to the inventory of the biological diversity of the Oriental Region.

The flower fly genus *Blera* Billberg is characteristic of the North Temperate forest, the maggots live in tree holes and rotten stumps and the flies are common at flowers in the spring (Barkalov & Mutin 1991, 1992; Rotheray & Stuke 1998). Previously, the genus has only been known from the Holarctic Region. The first Oriental species is here described from the southern slopes of the Himalaya Mountains in northern India.

# Blera himalaya Thompson, NEW SPECIES

Male.—Face yellow and white pollinose except broad brown shiny medial vitta; gena shiny and brown on anterior 1/2, yellow, white pilose and pollinose elsewhere; frontal lunule orange; frontal triangle bare, brown and shiny on anterior 1/2, white and white pollinose posteriorly; eyes holoptic, with contiguity as long as ocellar triangle; ventral triangle black and gray pollinose except brown and yellow pollinose anterior to ocellar triangle, brownish-yellow pilose; antenna light brown, more orange ventrally, black pilose; basoflagellomere with elongate medial sensory pit; arista long, longer than face; occiput black to dark brown on dorsal 1/3, yellow ventrally, white pollinose, yellow pilose.

Thorax. Postpronotum yellow, yellowish-gray pollinose, yellow pilose; mesonotum black except broadly orange laterally, sparsely gray pollinose except with irregular shiny areas mesad to wing, yellow pilose; postalar callus orange, sparsely gray pollinose, yellow pilose; scutellum yellow, yellow pilose, with distinct yellow subscutellar fringe; calypter and plumula yellow; halter orange except base of capitulum brown; katepimeron bare; metasternum bare; pleuron gray pollinose, yellow pilose, black except with orange areas on posterior antepisternum, dorsal katepisternum and anterior edge of meron. Legs: coxae yellow, white pollinose, yellow pilose; trochanters yellow, yellow pilose; profemur yellow on basoventral 1/3 and apex, brownish black elsewhere, yellow pilose; mesofemur yellow on basoventral 1/2 and apex, brownish black elsewhere, yellow pilose; metafemur yellow on base and apex, black elsewhere, yellow pilose except for short black pile ventrally; pro & mesotibiae yellow, yellow pilose; metatibia yellow on basal 2/3, brownish black apically, yellow pilose; pro & mesotarsi yellow except apical 2 tarsomeres brown, yellow pilose; metatarsus brownish black, black pilose. Wing: hyaline, bare on basoanterior 1/2, microtrichose posteriorly; microtrichose on apical 1/3 cell Sc, apical 1/3 cell R1, apical 2/3 cell R2+3, apical 1/2 cell R4+5, apicomedial 1/2 cell DM, apicomedial 1/3

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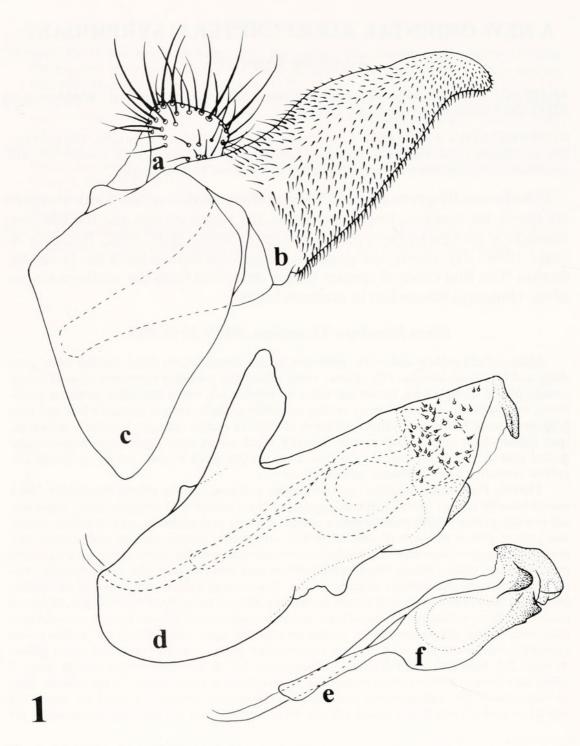


Fig. 1. Blera himalaya. Male genitalia, lateral view: a, cercus; b, surstyle; c, epandrium; d, hypandrium; e, aedeagal apodeme; f, aedeagus.

cell CuA1, apicomedial 1/4 cell CuP and all of alula and posterior margin beyond the cells.

**Abdomen:** 1st tergum yellow, sparsely white pollinose laterally, yellow pilose; 2nd tergum black with two complete yellow fasciae, yellow pilose except for a few black pili along apicomedial margin, with 1st fascia on middle of tergum but reaching along lateral margin to base of tergum, with other fascia along apical margin; 3rd & 4th terga similar to 2nd, except basal black areas narrower and apical yellow fascia correspondingly broader, with more black pile apically; male genitalia (Fig. 1) brownish orange, black pilose.

**Female.**—Similar to male except for normal sexual dimorphism; frons brownish black, shiny except yellowish-gray pollinose laterally, yellow pilose; vertex brown, shiny except ocellar triangle gray pollinose; 5th tergum brownish black except basal 1/4 yellow, black pilose.

**Holotype**. Male: INDIA: Himachal Pradesh, Simla, the Glen, 6,000 ft. [=1,828 m], October 1945, T. Jermyn, deposited in the Natural History Museum, London. Paratypes: 10 10 with the same data (10 USNM, 10 BMNH); "N. E. India," Partabnagar, 7,000 ft. [2,133 m], 31 October 1944, T. Jermyn (10 USNM).

The specific epithet, *himalaya*, is a noun in apposition, alluding to the home of the species.

Blera himalaya is easily recognized as the only Blera species which mimics Apis bees. Superficially, the species may be confused with two Indian Criorhina Meigen species described by Brunetti (1923). Blera himalaya differs from one, interrupta, by having a broad brown facial vitta, and from the other, dentata, by lacking the large ventral spur on the hind femur.

The genus Blera was revised recently by Barkalov and Mutin (1991, 1992). Himalaya is placed in the genus Blera as it displays all the essential characters of the genus: bare and undeveloped metasternum, distinctive facial shape with produced frontoantennal region, bare and usually holoptic eyes, short apical section of vein R4+5, et cetera. In their key to the species of Blera, himalaya runs to notata Wiedemann (couplet 17) as the postpronotum and scutellum are pale yellow, the metafemur has no apical process, the pro and mesofemora are narrowly pale basally, and 2nd tergum has narrow pale fasciae. Blera himalaya is different from *notata* in overall appearance. *Blera notata* (southeastern USA) is a black species with reduced basolateral yellow triangular maculae on 2nd and 3rd terga and has a completely yellow face, whereas himalaya is a brown and yellow to orange species with broad brown facial vitta and double continuous pale fasicae on 2nd through 4th terga. In the structure of the male genitalia, himalaya appears most similar to flukei Curran and robusta Curran, two Nearctic species. Unfortunately, Barkalov and Mutin (1991, 1992) do not illustrate the aedeagus, nor are the details of the apical half of the hypandrium clear. So, all that can be stated is that the shape of the surstyle of himalaya is similar, but differs in the shape of the apex.

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#### LITERATURE CITED

- **Barkalov**, A. V. and Mutin, V. A. 1991. Revision of hover-flies of the genus *Blera* Billberg 1820 (Diptera, Syrphidae). Entomologicheskoye Obozreniye 70: 204-213, 737-749. [In Russian, translation in 1992, Entomol. Rev. 70(9): 53-63, 71(4): 115-131.]
- **Brunetti, E.** 1923. Pipunculidae, Syrphidae, Conopidae, Oestridae. Diptera. In: [Shipley, A. E., ed.] *The fauna of British India including Ceylong and Burma*. Vol. 3, xii + 424 pp. Taylor & Francis, London.
- **Rotheray, G. E. and Stuke, J.-H.** 1998. Third stage larvae of four species of saproxylic Syrphidae (Diptera), with a key to the larvae of British *Criorhina* species. Entomol. Gazette 49: 209-217.



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