

A New *Ptiolina* from Nepal (Diptera, Rhagionidae)*

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Abstract

A new *Ptiolina* from Nepal is described and illustrated and is named *shimai*. This species is characterized by having a conspicuously long antenna and palpus.

Introduction

The genus *Ptiolina* is distributed in Europe (9 species), Siberia (2) and N. America (11) (see NAGATOMI, 1982). The number of described species from Europe will increase, if revival occurred in some of the species synonymized and deleted by SZILÁDY (1934), LINDNER (1942), and others.

For diagnoses of *Ptiolina* and its related genera, see NAGATOMI (1982). The male genitalia of *Ptiolina* will be treated by NAGATOMI (in prep.), based on 6 species from Japan and Nepal.

One species of *Ptiolina* is here recorded from Nepal for the first time. This species seems to be new to science.

Descriptive notes

Ptiolina shimai sp. n. (Figs. 1-15)

The distinction between *shimai* and its related species is discussed below.

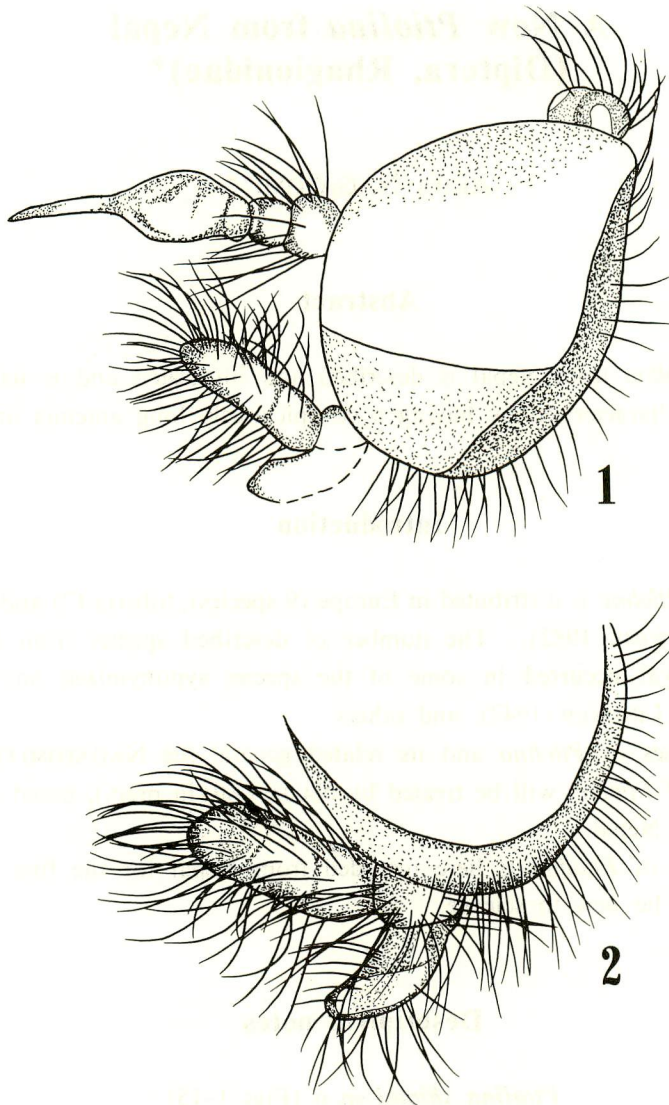
There are 3 species of *Ptiolina* originally recorded from Siberia: *Omphalophora oculata* BECKER, 1900; *Ptiolina fulva* BECKER, 1900; *Ptiolina grandis* FREY, 1918. *Omphalophora* is treated as a synonym of *Ptiolina* by NAGATOMI (1982).

According to BECKER (1900), *Ptiolina fulva* is characterized as follows: hairs on body not black but pale; femur black, but knee, tibia and tarsus yellow. However, SZILÁDY (1934: 267) put *fulva* as a synonym of *cinereofasciata* SCHILLING, 1837

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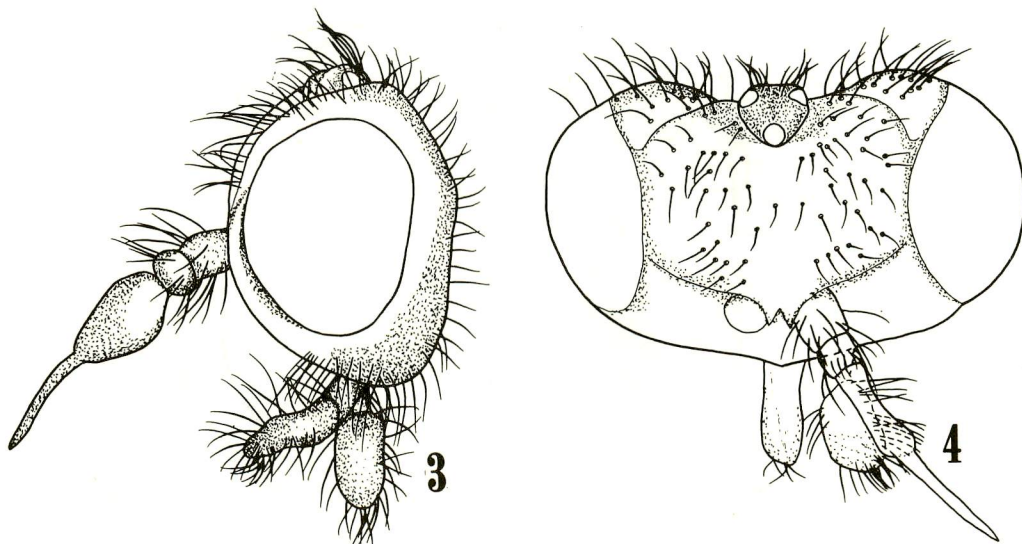


Figs. 1-2. Male head of *Ptiolina shimai*, lateral view [2: lower portion of head, especially showing proboscis (below palpus) and 2-segmented palpus; based on 2nd specimen].

from central and north Europe, and wrote, "Bey Type von *P. fulva* BECK. fand ich zwar ein wenig bräunlich geringelte Schienen, ... Die Beschreibung ist nicht ganz richtig und gibt keine entscheidende Merkmale zur Artberechtigung."

P. oculata is at once distinguished from *shimai* by the shape of antenna and wing venation (see NAGATOMI, 1982: 56).

P. grandis is also easily separated from *shimai* by the antennal segments 1-2 almost bare, palpus not large, and body larger (6 mm) (after FREY, 1918: 31-32).



Figs. 3-4. Female head of *Ptiolina shimai*. 3. Lateral view (pair of palpi is seen and proboscis is hidden behind palpus). 4. Direct frontal view (distance between antenna and median ocellus is kept horizontal).

Among the European *Ptiolina*, *atra* STAEGER, 1841 (whose correct name may be *atra* VERRALL, 1909) from Britain may be most similar to *shimai*, because in *atra*, whose face is bare as in *shimai*, the antennal segments 1-2 have numerous, long hairs and the segment 1 is decidedly longer than segment 2 (after VERRALL, 1909 and OLDROYD, 1969). But the antenna of *atra* may be shorter than that of *shimai*.

Spatulina engeli SZILADY, 1942 from Czechoslovakia may be a *Ptiolina* and in this species, palpal segment 2 is long and extends to base of antenna (see NAGATOMI, 1982). A direct comparison is necessary between *engeli* and *shimai*.

P. shimai is characterized as follows: antenna and palpus large; antenna (minus style) as long as or somewhat longer than distance from antenna to median ocellus; palpus longer than (in ♂) and nearly as long as (in ♀) distance from dorsal base of proboscis to antenna; hairs on several parts of body (antennal segment 1, palpus, vertex, upper occiput, mesonotum, scutellum, coxa, femur, tibia and sides of abdominal dorsum) are long especially in ♂; ♂ antennal segment 3 is constricted near base.

Male. Head (Figs. 1-2): dark brown to black, somewhat sooty, and more or less gray (or brownish gray) pollinose; head with black hairs which are long on vertex, occiput just behind upper eye margin, cheek, antennal segment 1 and palpus; frontal triangle, face, occiput above neck, antennal segment 3 and style bare; divided line between upper and lower eye facets situated below antenna; width of one eye on a midline from a direct frontal view 1.3-1.4 times distance from antenna to median ocellus, 0.7-0.8 times width of face at lowest portion from a direct frontal

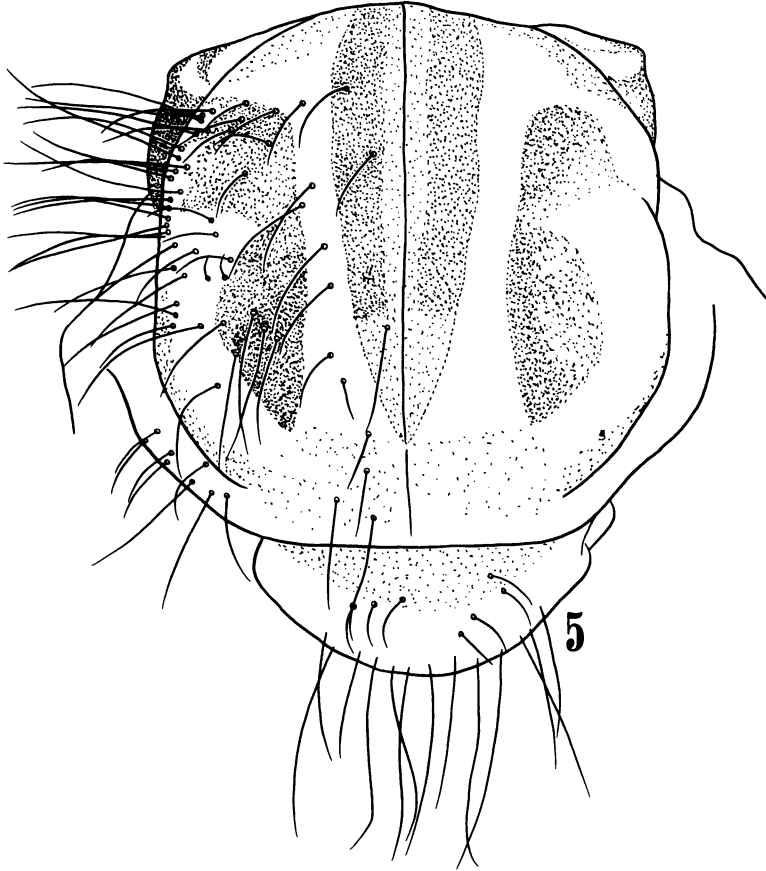


Fig. 5. Male mesonotum and scutellum of *Ptiolina shimai*, dorsal view.

view, and 2.0–2.3 times width of front just above antenna which is 1.3–1.8 times width of ocellar triangle; eyes contiguous for a distance which is 0.9–1.3 times length of ocellar triangle; ocellar triangle 1.0–1.1 times as wide as long; space between antennae 0.2–0.4 times width of ocellar triangle; distance from dorsal base of proboscis to antenna 0.8–0.9 times that from antenna to median ocellus; [sizes of clypeus, parafacials, etc. are not measured]; antenna (minus style) measured along inner surface 1.0–1.1 times distance from antenna to median ocellus; relative lengths of antennal segments 1, 2, and 3 (minus style) 143 (125–200) : 100 : 280 (250–367) and their relative widths 147 (138–167) : 119 (100–133) : 138 (113–171); antennal segment 3, 1.7–2.4 times as long as wide, constricted near base, and widest around middle; style 1.0–1.3 times as long as antennal segment 3; palpus 1.2–1.4 times distance from dorsal base of proboscis to antenna; palpal segment 2, 2–3 times as long as wide, 2.5–3 times as long as and 1.2–1.8 times as wide as segment 1; structural characters are based on 10 specimens.

Thorax (Fig. 5): dark brown to black, somewhat sooty and gray (or brownish

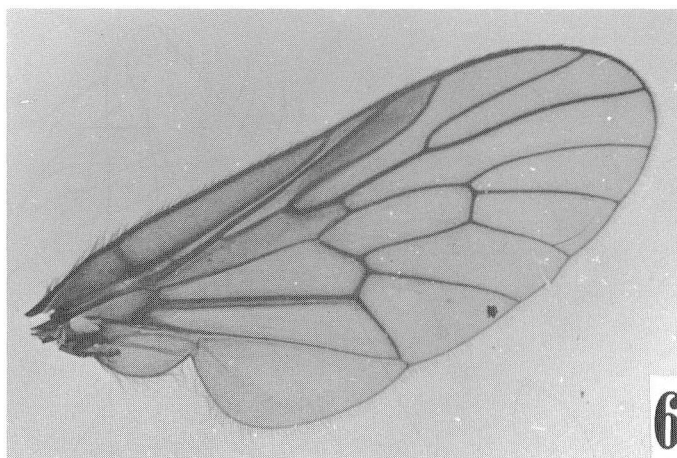


Fig. 6. Male wing of *Ptiolina shimai*.

gray) pollinose; mesonotum with 3 broad darker stripes, of which median one tapers posteriorly and the lateral are interrupted at the suture and widely separated from the humeral and posterior calli; the median stripe is further divided by a mid black line; these 3 broad stripes are very often indistinct according to specimen condition; propleura, mesonotum and scutellum with long, erect black hairs; pleura otherwise bare, except lower part of pteropleura which has some pile; halter dark brown to black.

Wing (Fig. 6): membrane faintly tinged with brown; stigma slightly darker; veins brown to dark brown.

Legs (Fig. 7): dark brown to black; coxa and femur gray (or brownish gray) pollinose; legs with black hairs which are longer and erect on coxa, tibia (except apical portion), posterior surface of fore femur, dorsal surfaces of mid and hind femora; relative lengths of segments (excluding coxa and trochanter) of fore leg 167 (152-190): 226 (209-243): 100: 32 (29-33): 25 (21-29): 19 (17-20): 31 (29-36), of mid leg 183 (170-200): 274 (257-300): 97 (88-105): 32 (29-33): 26 (23-29): 18 (17-20): 31 (26-33), of hind leg 232 (213-257): 298 (270-329): 112 (104-124): 38 (35-43): 29 (26-33): 20 (17-24): 34 (29-38) and in hind leg viewed from the side, relative widths of femur, tibia and tarsal segments 1-3, 36 (33-43): 21 (17-24): 14 (13-17): 12 (10-14): 10 (8-12); (N=10).

Abdomen: dark brown to black, somewhat sooty, and more or less gray (or brownish gray) pollinose; above and below clothed with black hairs which are longer and erect on sides of dorsum.

Genitalia (Figs. 8-15): outer (=posterior) margin of dististyle distinctly concave near base; anterolateral projection of ventral plate large; in the area corresponding to sternum 9, midposterior part strongly convex horizontally; anterior bar of aedeagus wider anteriorly from dorsal or ventral view; cercus 1.0-1.1 times as wide as long; concavity at anterior margin of tergum 9 wide and shallow; mid-length of tergum

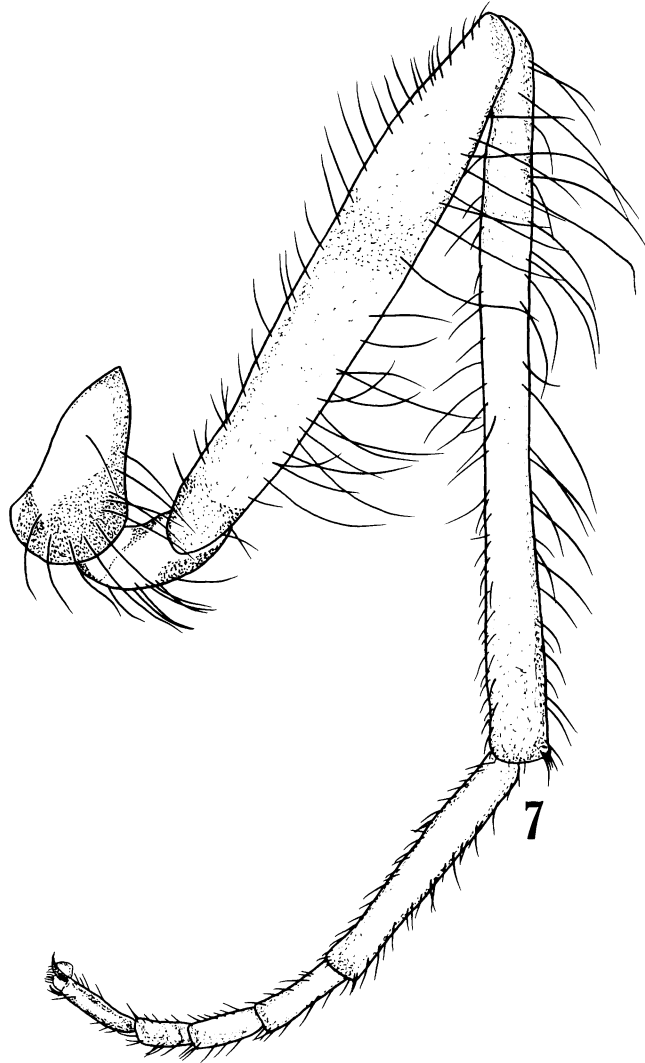


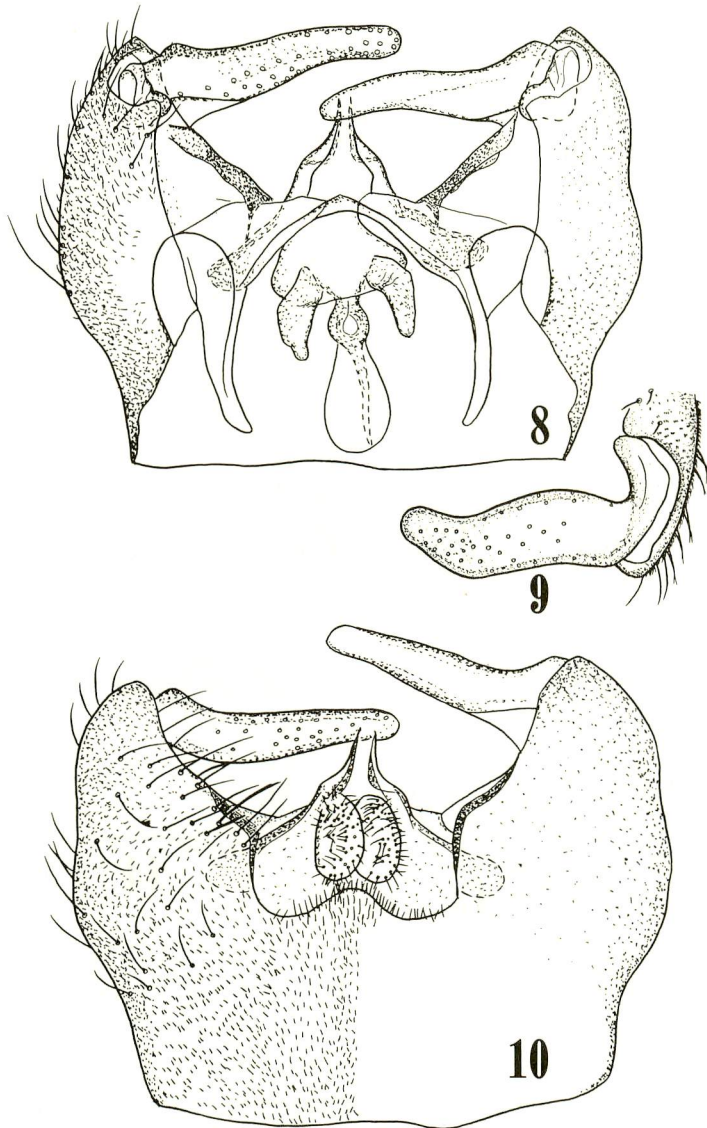
Fig. 7. Male hind leg of *Ptiolina shimai*, anterior view.

9, 0.4 times length of one side of concavity at anterior margin (which is kept horizontal).

Specimens dissected: 2♂♂, Tanga La (4000-4600 m), Nepal, 6. vii. 1972, H. SHIMA.

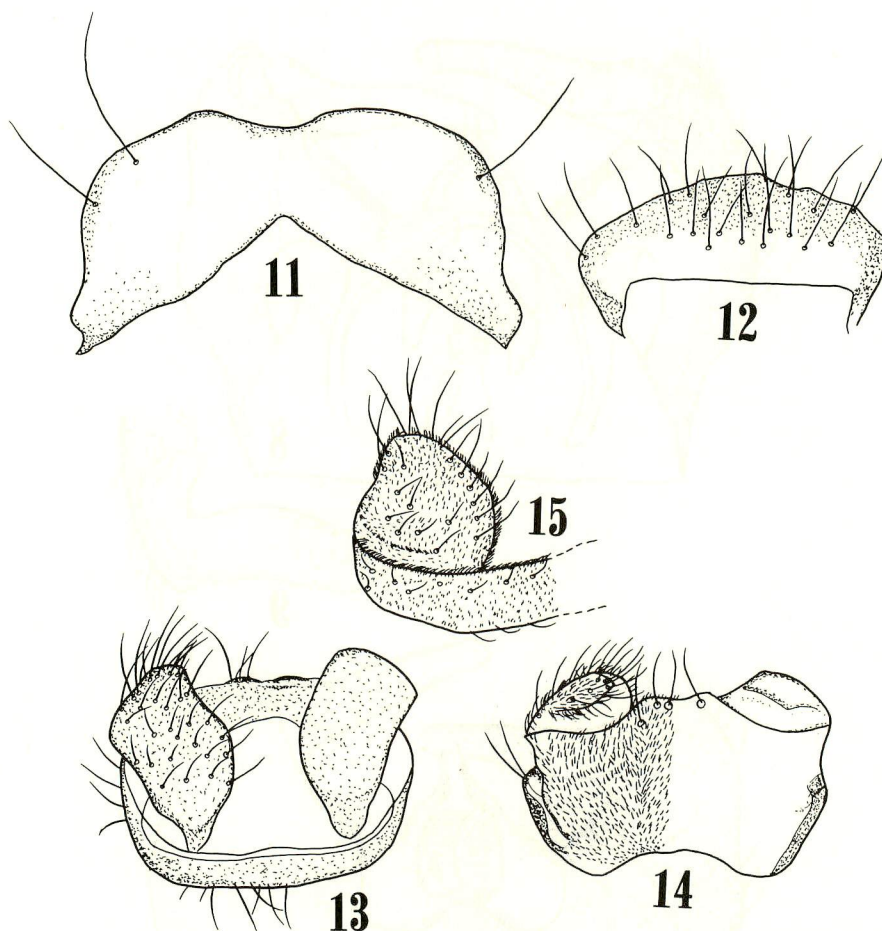
Length: body 3.5-4.0 mm; wing 4.1-4.4 mm; fore basitarsus 0.53-0.60 mm.

Female. Similar to male except as follows: Head (Figs. 3-4): front (except lower portion) with black hairs; hairs on head shorter than in male; eye not divided into upper and lower parts in size of facets as usual; width of one eye on a midline from a direct frontal view 0.7 times distance from antenna to median ocellus, 0.3 times width of face at lowest portion from a direct frontal view, and 0.4 times width of front just above antenna which is 4.2 times width of ocellar triangle; width of front at median ocellus 1.0 times that just above antenna, 1.1 times that



Figs. 8-10. Male genitalia of *Ptiolina shimai*. 8. Dorsal view. 9. Dististyle, posterior view (based on 2nd specimen; higher magnification than Figs. 8 & 10). 10. Ventral view.

at transverse suture, and 4.2 times width of ocellar triangle; space between antennae 0.5 times width of ocellar triangle; distance from dorsal base of proboscis to antenna 1.0 times that from antenna to median ocellus; [sizes of clypeus, parafacials, etc. are not measured]; antenna (minus style) measured along inner surface 1.2 times distance from antenna to median ocellus; relative lengths of antennal segments 1, 2, and 3 (minus style) 133:100:300 and their relative widths 150:150:183;



Figs. 11-15. Male terga 9-10, sternum 10 and cerci of *Ptiolina shimai*.
 11. Tergum 9, dorsal view. 12. Tergum 10, dorsal view. 13. Cerci, tergum 10 and sternum 10 (cerci are kept nearly horizontal), dorsal view. 14. Sternum 10 and cerci, ventral view. 15. Cercus and part of tergum 10 (whole cercus is kept nearly horizontal), dorsal view.

antennal segment 3, 1.6 times as long as wide and not constricted near base; palpus 0.9 times distance from dorsal base of proboscis to antenna; palpal segment 2, 1.6 times as long as wide, 2 times as long as and 2.5 times as wide as segment 1; structural characters are based on only 1 specimen.

Legs: relative lengths of segments of fore leg 168-226-100-37-26-21-37, of mid leg 179-274-100-34-26-21-32, of hind leg ?-295-111-42-32-21-37 [relative widths are not measured]; (N=1).

Length: body 3.0 mm; fore basitarsus 0.48 mm.

Distribution. E. Nepal.

Holotype: ♂, Tanga La (4000-4600 m), 27° 40' N, 87° 36' E, 6. vii. 1972, H. SHIMA.

Paratypes: 14 ♂♂, 1 ♀, same data as type.

Holotype in Kyushu Univesity (Fukuoka) and paratypes in Kyushu Univesity, Kagoshima University (Kagoshima), U. S. National Museum (Washington, D. C.) and British Museum (Natural History) (London).

This species is named in honor of Dr. Hiroshi SHIMA, a specialist on Tachinidae and the first collector of this species.

Acknowledgements

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