

**New or little-known Tipulidae from Eastern  
China (Order Diptera).**

By

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With 5 figures in the text.

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I wish to express my indebtedness to Prof. YNGVE SJÖSTEDT for sending me for study a small series of Tipulidae collected in the Province of Kiangsu, Eastern China. The types and named specimens have been returned to Prof. SJÖSTEDT, to be preserved in the Naturhistoriska Riksmuseum, Stockholm.

***Pselliophora bifascipennis* BRUNETTI.**

1911. *Pselliophora bifascipennis* BRUNETTI; Rec. Indian Mus., 6: 241—242.

1916. *Dictenidia Horikawae* MATSUMURA; Thousand Ins. Japan, Add. 2: 449—450, pl. 24, fig. 12.

1916. *Pselliophora sackeni* EDWARDS; Ann. Mag. Nat. Hist., (8) 18: 257.

Two females, Kiangsu, June and September (Dir. KJELL KOLTHOFF). I can see no basis for the separation of *horikawae* from the earlier described *bifascipennis*.

***Tipula (Formotipula) kiangsuensis* sp. n.**

Thorax orange-yellow; legs black, the femoral bases narrowly yellow; wings with a uniform blackish tinge, the stigma darker;  $R_{1+2}$  partly or entirely atrophied: abdominal segments obscure

orange, bordered laterally and caudally by black, the latter color so extensive as to greatly restrict the ground-color.

Female. — Length, 11—11.5 mm.; wing, 11.5—12 mm.

Frontal prolongation of head black, pruinose; nasus distinct; palpi black. Antennae with scape and pedicel black; flagellum broken. Head black, sparsely pruinose; anterior vertex with a median groove back from summit of the low vertical tubercle.

Pronotum and mesonotum dull orange-yellow, the mesonotal scutellum and cephalic half of mediotergite a little darker. Pleura similarly yellow. Halteres with stem yellow, the knob blackened. Legs with coxae and trochanters yellow; remainder of legs black, the femoral bases rather narrowly but conspicuously yellow. Wings (Fig. 1) with a uniform blackish tinge, the stigma darker brown; oblitative areas across base of cell *1st M*<sub>2</sub> restricted and ill-defined; veins dark brown. Venation: Tip of *R*<sub>1+2</sub> atrophied, the base sometimes represented by a short spur; *Rs* relatively short and arcuated.

Abdomen variegated orange and black, the caudal and lateral margins of both tergites and sternites darkened, the disk restrictedly obscure orange; in the holotype, the bright colors are greatly reduced at the expense of the black, the outer segments uniformly darkened; the paratypes have the caudal margin of the eighth tergite obscure orange. Ovipositor (Figs. 4, 5) with valves as shown.

Holotype, ♀, Kiangsu, May (KOLTHOFF).

Paratopotypes, 2 ♀♀, April, May (KOLTHOFF).

The combination of orange-yellow thoracic coloration and atrophied vein *R*<sub>1+2</sub> eliminates all of the numerous regional species of *Formotipula* excepting *cinereifrons* DE MEIJERE (Java, Borneo) and *exusta* ALEXANDER (Szechwan, western China). The latter species is readily told by the entirely yellow abdomen; the former has the abdomen reddish yellow, with only the terminal segments darker. In the present fly, all abdominal segments beyond the first are variegated by both black and obscure orange, a type of pattern not previously reported in the subgenus.

### **Hexatoma (Eriocera) kiangsuana** sp. n.

Belongs to the *nepalensis* group; allied to *hilpa*; head and thorax deep opaque velvety-black; femora black, tibiae abruptly paler, more yellowish brown, with the tips narrowly darkened; wings with a clear white crossband before cord, extending from costa to vein *Cu*; *R*<sub>2+3+4</sub> and *R*<sub>2+3</sub> subequal in length

and in alignment; abdomen velvety-black, the bases of segments two to five broadly glabrous and nacreous.

Male. — Length, about 14 mm.; wing, 9.5 mm.

Rostrum, palpi and antennae black, the latter relatively short. Head black, with conspicuous erect setae.

Thorax deep velvety-black, with conspicuous erect black setae. Halteres black. Legs with the coxae and trochanters black; femora black; tibiae much paler, yellowish brown or pale brown, the tips darkened; tarsi black. Wings (Fig. 2) much as in *hilpa* and allies; black, with a conspicuous clear white crossband before cord, beginning as a small costal spot at base of cell  $Sc_1$ , extending obliquely across cell  $R_1$ , widest in cell  $R$ , ending abruptly at vein  $Cu$ ; a cloud slightly darker than the ground at origin of  $Rs$ , vaguely preceded and followed by more yellowish areas; Anal cells more grayish, especially at base. Venation:  $Sc_1$  ending almost opposite fork of  $R_{2+3+4}$ ;  $R_{1+2}$  longer than  $Sc_2 + R_1$ ;  $R_{2+3+4}$  and  $R_{2+3}$  in alignment and subequal; basal section of  $R_5$  subequal to  $R_{2+3+4}$ ;  $Rs$  relatively short, only about one-third longer than  $R$ ; cell  $M_1$  lacking; *m-cu* at near two-thirds the length of 1st  $M_2$ .

Abdomen relatively long, the segments black, the broad bases of segments two to five, inclusive, glabrous, brownish or nacreous; caudal borders of segments two to five and outer segments, including hypopygium, deep velvety black.

Holotype, ♂, Kiangsu (KOLTHOFF). Paratopotype, a fragment, sex uncertain.

*Hexatoma (Eriocera) kiangsuana* is most generally similar to *H. (E.) hilpa* (WALKER), where it runs by means of EDWARDS' key to the Old World species of the subgenus (Ann. Mag. Nat. Hist., (9) 8: 70—78; 1921). It differs in the coloration of the legs and wings, especially the pale tibiae, and in the distribution of the white discal fascia. EDWARDS has considered *alboguttata* MATSUMURA (Japan) as being synonymous with *hilpa* and, if this is the case, the present fly is certainly distinct. In *alboguttata*, the legs are more uniformly blackened, the discal area of wings more yellowish white, and not or scarcely reaching the costal border beyond the fork of  $Sc$ ;  $Rs$  conspicuously longer, exceeding one and one-half times the length of vein  $R$  alone.

### *Hexatoma (Eriocera) kolthoffi* sp. n.

Belongs to the *chirothecata* group; general coloration black; head conspicuously bright yellow; halteres and legs black; wings with a strong blackish suffusion, more intense along

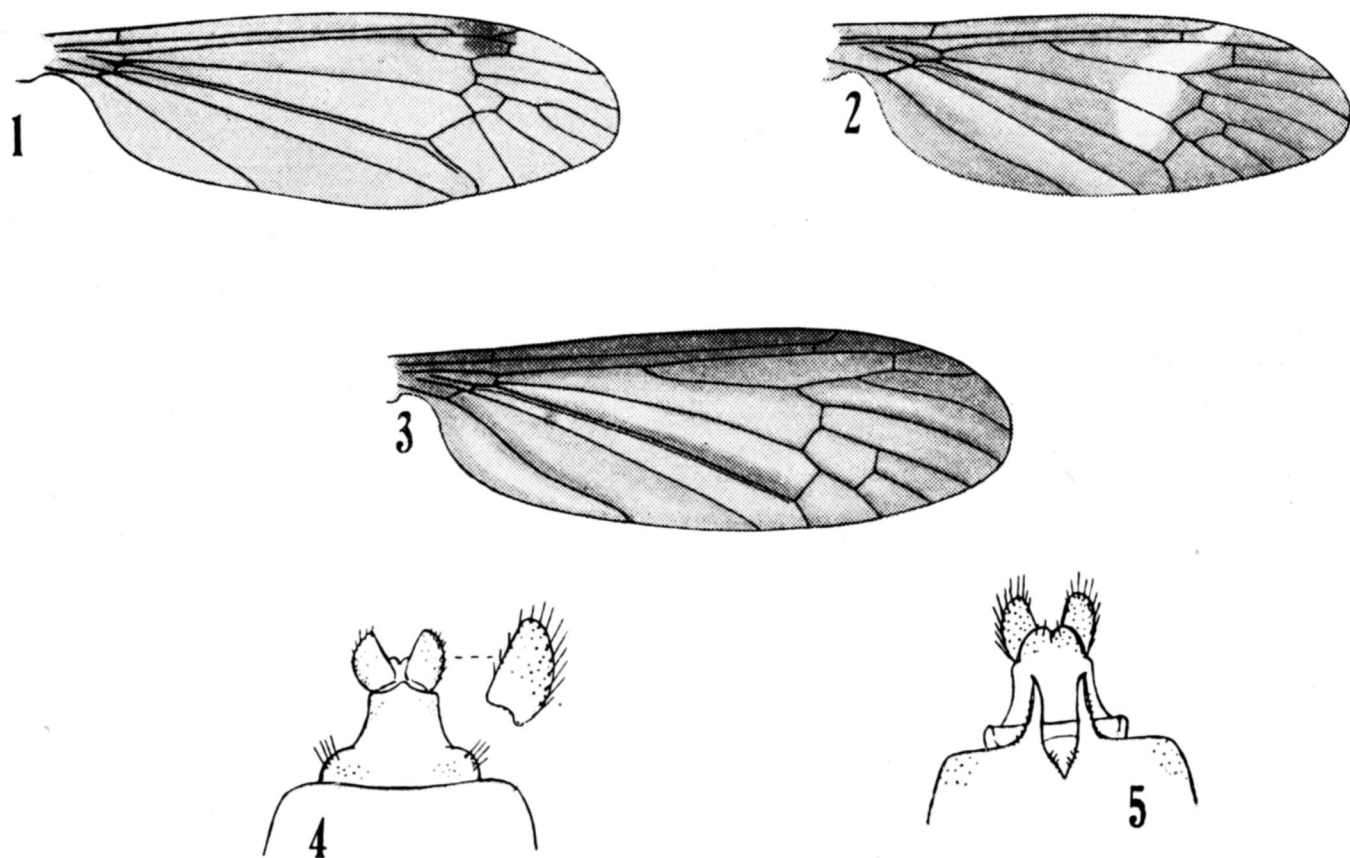


Fig. 1. *Tipula (Formotipula) kiangsuensis* sp. n.; wing.  
 2. *Hexatoma (Eriocera) kiangsuana* sp. n.; wing.  
 3. *Hexatoma (Eriocera) kolthoffi* sp. n.; wing.  
 4. *Tipula (Formotipula) kiangsuensis* sp. n.; ovipositor, dorsal aspect.  
 5. *Tipula (Formotipula) kiangsuensis* sp. n.; the same, ventral.

costal border; macrotrichia on radial and most medial veins beyond cord; cell  $M_1$  lacking.

Female. — Length, about 12 mm.; wing, 8.5 mm.

Rostrum very short to almost lacking; palpi short, brown. Antennae with basal two segments orange-yellow; flagellum broken. Head entirely bright yellow; vertical tubercle conspicuous, entire; vertex with a few scattered black setae.

Thoracic notum black, subnitidous, without markings. Pleura black, the dorsopleural region a little paler. Halteres short, black. Legs black throughout. Wings (Fig. 3) with a strong blackish suffusion, the costal border more intense, the centers of cells of posterior two-thirds of wings paler than the borders; veins pale brown, caudad of the radial field very pale and faint. Macrotrichia of veins beyond cord relatively abundant and conspicuous, including all branches of  $R$  and the outer sections of  $M_{1+2}$  and  $M_3$ . Venation:  $R_{1+2}$  about three-fourths  $R_{2+3}$ ; basal section of  $R_5$  subequal to  $r-m$ ; cell  $M_1$  lacking; distal section of  $Cu_1$  short, nearly in longitudinal alignment with its basal section.

Abdomen brownish black, the lateral margins of tergites narrowly more blackish; tergites without glabrous or nitidous

annuli. Ovipositor with shield black, the elongate slender valves light yellow.

Holotype, ♀, Kiangsu, September (KOLTHOFF).

I name this interesting species after its discoverer. By EDWARDS' key to the Old World species of the subgenus (l. c., (9) 8: 70—781; 1921), the fly runs to couplet 37, where it disagrees with all species beyond by the black abdomen, in conjunction with the lack of cell  $M_1$  of the wings. The species is well-distinguished from other regional allies by the black body and abruptly bright yellow head.



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