

VI.—*New or little-known Tipulidæ (Diptera).*—XXVI.  
*Palæarctic Species.* By CHARLES P. ALEXANDER, Ph.D.,  
 F.E.S., Massachusetts Agricultural College, Amherst,  
 Massachusetts, U.S.A.

THE present paper is based largely upon Limoniinæ from the mountainous sections of Hokkaido and Honshiu, Japan, where they were taken by my friend Professor Teiso Esaki. A few additional species are from Kiushiu, taken by Professor Hori, and from the vicinity of Kofu, Japan, taken by Mons. de Lezey, and contained in the collection of the Paris Museum. Except where stated to the contrary, the types are preserved in the collection of the writer through the great kindness of the collectors.

*Dicranomyia mesosternatoides*, sp. n.

*Male.*—Length about 7.5 mm.; wing 9 mm.

Very similar to *D. mesosternata*, Alexander (Japan), differing as follows:—

Wings with the brown pattern more extensive, the spots at origin of *Rs* and mid-length of cell *Sc* reaching vein *M*; band along the cord broad and diffuse, continued basad along vein *M*; wing-apex more extensively darkened; marginal spots on anal veins larger and more diffuse.

Male hypopygium with the ventral dististyle produced into a long slender rostrum, the spines very long and widely separated from one another, the outer spine on the extreme tip of the rostrum a little longer than the other spine and gently curved; the second spine is on the face of the style itself, at the base of the rostrum, arising from a small papilla, approximately straight. Dorsal dististyle strongly curved, the apex feebly expanded into a small head.

*Hab.* Japan (Hokkaido).

*Holotype*, ♂, Akan, Kushiro-no-kuni, September 3, 1922 (T. Esaki).

*Paratopotype*, ♂.

*Dicranomyia variispina*, sp. n.

Related to *D. basifusca*, Alexander; wings with a strong brown tinge; *Sc*<sub>1</sub> and *Sc*<sub>2</sub> both beyond the origin of *Rs*; cell 1st *M*<sub>2</sub> broad; male hypopygium with the spines of the rostrum heteromorphous.

*Male.*—Length about 5.5 mm.; wing 7.6 mm.

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Rostrum and palpi black. Antennæ black throughout, the flagellar segments oval, the basal ones subpyriform. Head dark grey.

Mesonotal præscutum and scutum dark brownish grey, the humeral region of the former more reddish, with small pseudosutural foveæ; scutellum lighter grey, the caudal margin reddish; postnotum dark grey. Pleura dark brown, grey-pruinose. Halteres pale, the extreme base of the stem brighter, the knobs infuscated. Legs with the coxæ infuscated; trochanters obscure yellow; femora light testaceous brown, the tips narrowly darker brown; remainder of the legs light brown. Wings with a strong brown tinge, the stigma oval, darker brown; veins dark brown. Venation:  $Sc_1$  just beyond the origin of  $Rs$ ,  $Sc_2$  at its tip and likewise beyond this origin;  $R_1$  beyond the origin of  $Rs$  deflected strongly cephalad;  $Rs$  arcuated;  $R_{4+5}$  strongly angulated, the subperpendicular basal third without macrotrichia; cell 1st  $M_2$  broad, at its outer end approximately two-thirds the length of the cell; basal deflection of  $Cu_1$  just beyond the fork of  $M$ ; arculus not conspicuously infuscated, as is the case in *D. basifusca*.

Abdomen dark brown throughout, including the hypopygium. Male hypopygium with the more basal spine of the rostriform appendage arising from a swollen base, much longer than the sessile outer spine. Gonapophyses with the caudal mesal angles produced caudad into a slender black spine, the tip bent strongly laterad, the lateral margin with numerous denticles.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Hinoëmata, Iwashiro-no-kuni, altitude 3280–6235 feet, July 23, 1923 (*T. Esaki*).

*Dicranomyia basiseta*, sp. n.

General coloration yellowish; rostrum reddish yellow; antennæ dark brown throughout; præscutum with a brown median stripe; wings tinged with yellowish grey, the stigma pale brown; male hypopygium with the cephalic mesal angle of the ventral dististyle bearing a brush of setæ.

*Male*.—Length about 5 mm.; wing 7.2 mm.

Rostrum pale reddish yellow, the palpi dark brown with the basal segment pale. Antennæ dark brown throughout; flagellar segments oval. Head yellowish grey.

Pronotum infuscated. Mesonotal præscutum yellow with an ill-defined brownish median stripe; remainder of mesonotum pale brown, sparsely pollinose. Pleura yellow, the

anepisternum feebly darkened. Halteres pale, the knobs scarcely infuscated. Legs yellow, the tips of the tibiæ narrowly infuscated; basitarsi pale brown, the tips and remainder of the tarsi brownish black. Wings tinged with yellowish grey, the base and costal region somewhat clearer yellow; stigma oval, pale brown; veins brown. Venation:  $Sc_1$  ending slightly before the origin of  $Rs$ ,  $Sc_2$  some distance from its tip,  $Sc_1$  alone being a little longer than the basal deflection of  $R_{4+5}$ ;  $Rs$  arcuated, about one-half longer than the basal deflection of  $R_{4+5}$ ; basal deflection of  $Cu_1$  just beyond the fork of  $M$ .

Abdomen brown, the sternum even lighter-coloured. Male hypopygium with the mesal face of basistyles produced into the usual conical setiferous lobe, and, in addition, a much larger fleshy lobe that appears to be contiguous across the median line with its fellow of the opposite side; ventral dististyle with the stout rostrum feebly chitinized, bearing near mid-length two spines; cephalic mesal angle of the style likewise feebly chitinized and bearing a dense brush of setæ.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Lake Chuzenji, Shimotsuke-no-kuni, altitude 4170 feet, July 22, 1923 (*T. Esaki*).

*Antocha (Antocha) gracillima*, sp. n.

General coloration brownish grey, the præscutum with three ill-defined darker stripes; wings greyish subhyaline, the prearcular region whitened; cell 1st  $M_2$  long and narrow; male hypopygium with the outer dististyle blackened, bifid at apex; gonapophyses and lateral branches of ædeagus very long and slender.

*Male*.—Length about 4.2 mm.; wing 5 mm.

Rostrum and palpi brownish black. Antennæ relatively elongate for a member of this genus, if bent backward extending about to the root of the halteres, black throughout; basal flagellar segments elongate-oval, the terminal segments shorter. Head dark brown, pruinose, especially in front.

Mesonotum brownish grey, the præscutum with three very ill-defined dark brown stripes; scutal lobes darker. Pleura brown, vaguely pruinose, the dorsal portion of the pteropleurite paler. Halteres pale, the knobs infuscated. Legs with the coxæ brownish testaceous, brighter mesally; trochanters obscure yellow; legs brown, the femoral bases narrowly paler, more conspicuous on the fore legs. Wings

greyish subhyaline, the prearcular region conspicuously whitened; stigma large, pale brown, the margins ill-defined; veins *Cu* and *2nd A* indistinctly seamed with brown; veins dark brown. Venation: *Sc* ending a short distance before the fork of *Rs*, the latter long and straight with a symmetrical fork; *r* bisecting the stigma; cell *1st M*<sub>2</sub> relatively long and narrow, gently widened outwardly, *m* shorter than the outer deflection of *M*<sub>3</sub>; basal deflection of *Cu*<sub>1</sub> a short distance before the fork of *M*.

Abdomen dark brown. Male hypopygium with the basistyles simple; dististyles broadly united at base; outer dististyle heavily chitinized except at extreme base, the diameter nearly equal throughout the length, the tip narrowed into a slender point with a smaller stouter tooth before the tip, which thus appears bifid; inner dististyle a little longer, pale, with abundant setæ. Gonapophyses with the mesal branch very long and slender, gently sinuous, tapering to the acute tip. *Ædeagus* stout, subtended on either side at base by a long, extremely slender, gently curved rod that runs out to a needle-like point.

*Hab.* Japan (Kiushiu).

*Holotype*, ♂, Mt. Wakasugi, Chikuzen-no-kuni, altitude 2500 feet, April 19, 1924 (*H. Hori*).

*Molophilus sericatus*, sp. n.

Antennæ with the basal half light yellow; head and pronotum light yellow; mesonotum reddish fulvous; wings strongly tinged with yellow; vein *2nd A* relatively short; abdomen brownish yellow.

*Female*.—Length about 4 mm.; wing 4.5 mm.

Rostrum and palpi dark brown. Antennæ with the basal half light yellow, the terminal segments passing into brown; antennæ of moderate length, if bent backward extending nearly to the root of the halteres. Head light yellow.

Pronotum sulphur-yellow. Mesonotum light reddish fulvous, the lateral margin of the præscutum narrowly sulphur-yellow, the posterior sclerites of the notum obscure yellow. Pleura yellowish testaceous, slightly infuscated anteriorly. Halteres yellow, the knobs sericeous. Legs with the coxæ and trochanters yellow; remainder of legs infuscated, the basal three-fourths of the posterior femora obscure yellow; remainder of legs black. Wings strongly tinged with yellow, this including the short costal fringe; anal region of the wing a little darker; macrotrichia light

brown; veins yellow. Venation: vein 2nd *A* relatively short and straight, ending about opposite the fork of *Cu*.

Abdomen brownish yellow, the tergites a little darker. Ovipositor with the tergal valves only gently upcurved, the tips suddenly narrowed.

*Hab.* Japan (Hokkaido).

*Holotype*, ♂, Jozankei, Ishikari-no-kuni, altitude 1000 feet, August 16, 1923 (*T. Esaki*).

*Molophilus sericatus* bears a general resemblance to the Nearctic *M. pupipennis* (Osten-Sacken).

*Ormosia horiana*, sp. n.

Allied to *O. aculeata*, Alexander; general coloration grey, the præscutum with three brown stripes; antennæ of male elongate; wings greyish subhyaline, sparsely variegated with brown; veins  $R_2$  and  $R_3$  deflected strongly cephalad at tips; male hypopygium with the outer dististyle bearing at its base a flattened rectangular plate that terminates in two smooth spines.

*Male*.—Length 4.6–5 mm.; wing 5.5–6.8 mm.

*Female*.—Length about 4.5 mm.; wing 6 mm.

Rostrum and palpi black. Antennæ elongate, in the male if bent backward extending to beyond the base of the abdomen, black throughout, the flagellar segments elongate-cylindrical to fusiform. Head brownish grey.

Pronotum and mesonotum dark grey, the præscutum with three brown stripes, the centres of the scutal lobes likewise darkened; pseudo-sutural foveæ conspicuous, black. Pleura dark, grey-pruinose. Halteres pale, the knobs golden-yellow sericeous. Legs with the coxæ grey; trochanters brownish yellow; femora brown, covered with yellow setæ, the apex broadly blackened; in some specimens, and especially on the fore legs, there is a subbasal dark ring; tibiæ and tarsi black. Wings greyish subhyaline, the stigma brown; brown spots and seams arranged about as in *aculeata*, but smaller—at origin of  $R_s$ , on  $Sc_2$ , fork of  $R_s$ , and on basal deflection of  $Cu_1$ ; longitudinal veins more or less seamed with brown. Venation:  $Sc_2$  near mid-length of  $R_s$ ;  $r$  at fork of  $R_{2+3}$ ; tips of  $R_3$ , and especially  $R_2$ , deflected strongly cephalad; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_3$ ;  $m$  rectangular and spurred at its juncture with the free apical portion of  $M_3$ ; basal deflection of  $Cu_1$  variable in position, from one-half to nearly its length before the fork of  $M$ .

Abdomen dark brown, with sparse yellow setæ. Male hypopygium with the basistyle produced caudad into a slender needle-like point, as in *aculeata*; outer dististyle produced mesad into a long point, the apex of which is obtuse; at base of style bearing a quadrate flattened plate, the mesal outer angle of which is produced into a stout spine, the outer lateral angle into a long, smooth, gently curved spine. Gonapophyses straight, relatively slender, black, without a lateral tooth as in *aculeata*.

*Hab.* Japan (Kiushiu).

*Holotype*, ♂, Mt. Wakasugi, Chikuzen-no-kuni, altitude 2500 feet, April 19, 1924 (*H. Hori*).

*Allotopotype*, ♀.

*Paratopotypes*, 2 ♂ ♂.

This interesting crane-fly is named in honour of the collector, Prof. Hiroshi Hori. The species is most closely related to *O. aculeata* (Honsiu), from which it differs conspicuously in the elongate antennæ of the male and the structure of the hypopygium.

*Gonomyia (Gonomyia) gracilistylus*, sp. n.

Antennæ black; wings tinged with brownish grey; *Sc* short, *Sc*<sub>1</sub> ending far before the origin of the short arcuated sector; *R*<sub>2</sub> short; cell 1st *M*<sub>2</sub> not pointed at proximal end; male hypopygium with three dististyles, the outermost long, slender, bisinuous.

*Male*.—Length about 3 mm.; wing about 3.8 mm.

Rostrum dark brown. Antennæ black throughout. Head grey.

Pronotum yellow. Mesonotal præscutum light brown, the humeral region and lateral margins whitish; scutal lobes greyish brown; scutellum obscure yellow; postnotum apparently dark-coloured. Pleura pale whitish, with a pale brown longitudinal mark on anepisternum and a less distinct one on the sternopleurite. Pleurotergite pruinose. Halteres pale, the knobs a little darkened. Legs with the coxæ yellow; trochanters testaceous; femora and tibiæ pale brown, the terminal tarsal segments passing into darker. Wings tinged with brownish grey, the stigma faintly darker; veins darker brown. Venation: *Sc* short, *Sc*<sub>1</sub> ending far before the origin of *Rs*, this distance greater than the length of the sector, *Sc*<sub>2</sub> a short distance from the tip of *Sc*<sub>1</sub>; *Rs* strongly arcuated at origin; *R*<sub>2</sub> short, reaching costa less than its own length from the tip of *R*<sub>1</sub>; *R*<sub>2+3</sub> and *R*<sub>3</sub> subequal; cell 1st *M*<sub>2</sub>

not pointed at proximal end, the basal section of  $M_{1+2}$  fully equal to  $m$ ; basal deflection of  $Cu_1$  at fork of  $M$ .

Abdomen with the tergites dark brown, the sternites testaceous; hypopygium obscure yellow. Male hypopygium with the basistyles short and stout; three dististyles, the outermost long, slender, bisinuous; intermediate style a chitinized black rod, almost straight, near two-thirds its length narrowed into a spine, at its base with an appressed powerful seta; inner style fleshy, terminating in a powerful fasciculate seta, the outer or caudal margin with a comb of about five more delicate setæ from conspicuous punctures. Gonopophyses and ædeagus forming a large central mass.

*Hab.* Japan (Honsiu).

*Holotype*, ♂, Mt. Uakone, Sagami-no-kuni, altitude 2300 feet, July 13, 1923 (*T. Esaki*).

*Limnophila (Lasiomastix) breviramus*, sp. n.

General coloration reddish brown; abdomen dark brown; wings relatively narrow, uniformly tinged with brown, the macrotrichiæ long and conspicuous;  $R_s$  shorter than  $R_2$ ; mesal branch of inner dististyle of male hypopygium very short.

*Male*.—Length about 6 mm.; wing 6.2 mm.

Rostrum and palpi dark brown. Antennæ of moderate length, if bent backward attaining the base of the abdomen; pale brown throughout, the flagellar segments with a short dense white pubescence. Head dark grey, the orbits and anterior vertex silvery grey.

Mesonotum reddish brown, unmarked, the scutellum and postnotum pruinose. Pleura reddish plumbeous. Halteres pale, the knobs a very little darker. Legs with the coxæ obscure yellow, the fore coxæ and base of mid-coxæ a little infuscated; trochanters obscure yellow; femora obscure yellow; tibiæ concolorous, the tips very narrowly infuscated; terminal tarsal segments passing into brown; legs hairy. Wings relatively long and narrow, with a uniform brown tinge, the small oval stigma a little darker brown; veins still darker brown. Macrotrichiæ of veins and cells very long and conspicuous, as in *L. macrotrichiata*, Alexander. Venation:  $R_s$  shorter than  $R_2$  alone;  $r$  about twice its length from the tip of  $R_1$ ; cell 1st  $M_2$  elongate-rectangular, the basal deflection of  $Cu_1$  near one-third its length.

Abdomen dark brown. Male hypopygium of the general type of the subgenus; inner dististyle with the posterior or

mesal branch very short, not exceeding one-fourth the length of the flattened outer branch.

*Hab.* Japan (Houshiu).

*Holotype*, ♂, Yumoto, Shimotsuke-no-kuni, altitude 4830 feet, July 23, 1923 (*T. Esaki*).

*Limnophila (Ephelia) subaprilina yezoensis*, subsp. n.

*Female*.—Length 6.5 mm.; wing 6.1 mm.

Similar to typical *subaprilina*, Alexander, differing as follows:—

Antennæ with the scape pale brownish yellow, the basal segment of the flagellum conspicuously light yellow; flagellar segments 2 and 3 pale brown, the remainder of the organ dark brown. Legs with the femora scarcely tipped with darker.

*Hab.* Japan (Hokkaido).

*Holotype*, ♀, Jozankei, Ishikari-no-kuni, altitude 1000 feet, August 16, 1923 (*T. Esaki*).

*Limnophila (Dicranophragma) upsilon*, sp. n.

*Female*.—Length about 7.5 mm.; wing 7.4 mm.

Closely related to *L. (D.) formosa*, Alexander, from which it differs as follows:—

Size larger. Basal flagellar segments of antennæ longer, only the first distinctly yellowish. Mesonotal præscutum brown, sparsely pollinose, the extreme cephalic margin darkened; a conspicuous inverted U-shaped brown marking on either side, formed by the dark interspaces of the thoracic stripes, the lateral stripes being pointed in front. Pleura brown, indistinctly striped longitudinally with dark brown. Wings (of female) relatively narrow, widest opposite the cord; wing-pattern almost as in *formosa*, but with scattered brown dots in the interspaces, including cells *C*, *R*, *M*, *Cu*, *1st A*, *2nd A*, *1st R*<sub>1</sub>, *1st R*<sub>2</sub>, *R*<sub>3</sub>, and *R*<sub>5</sub>; the larger marginal spots are more circular in outline. Venation: *Sc*<sub>1</sub> conspicuously longer, exceeding cell *1st M*<sub>2</sub> in length; cell *1st M*<sub>2</sub> shorter and more nearly quadrate; *m* longer than the outer deflection of *M*<sub>3</sub>, gently angulate; cell *M*<sub>1</sub> about equal to its petiole; basal deflection of *Cu*<sub>1</sub> shortly before mid-length of cell *1st M*<sub>2</sub>.

*Hab.* Japan (Houshiu).

*Holotype*, ♀, Hinoemata, Iwashiro-no-kuni, altitude 3280–6235 feet, July 24, 1923 (*T. Esaki*).



*Limnophila subnemoralis*, sp. n.

Close to the typical form of *L. nemoralis* (Meigen); basal segment of scape black; mesonotum pale reddish brown, dusted with grey, more heavily so on the pleura; wings tinged with pale yellow; abdomen pale brown, in the male with a conspicuous dark brown subterminal ring; hypopygium ochreous; gonapophyses clavate, their tips broadly rounded.

*Male*.—Length about 6.5 mm.; wing 7 mm.

*Female*.—Length 7.5 mm.; wing 7.2 mm.

Rostrum black. Antennæ with the basal segment of the scape black, the second segment dark reddish brown; flagellum brown. Head light grey, the anterior part of the vertex and the narrow orbits whitish.

Pronotum reddish brown, rather sparsely pruinose, the scutellum and postnotum more heavily so. Pleura reddish brown, whitish pruinose. Halteres light yellow. Legs with the coxæ and trochanters yellow, the fore coxæ and extreme base of mid-coxæ a little darker; remainder of legs obscure yellow, the terminal tarsal segments passing into dark brown. Wings tinged with pale yellow, the stigma only a little darker, almost bisected by *r*; veins pale yellowish brown. Venation: *r* about three times its length from the tip of  $R_1$ ;  $R_{2+3}$  nearly three times the basal deflection of  $R_{4+5}$ ; cell 1st  $M_2$  rectangular, twice as long as wide; *m* almost straight, but longer than the outer deflection of  $M_3$ ; cell  $M_1$  about one-half its petiole; basal deflection of  $Cu_1$  just beyond one-third the length of cell 1st  $M_2$ .

Abdomen pale brown; segments 7 and 8 dark brown, forming a conspicuous subterminal ring; hypopygium ochreous. Male hypopygium with the inner dististyle very broad at base. Gonapophyses clavate, the tips broadly rounded. In the female, the abdomen is uniformly rather dark brown.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Yumoto, Shimotsuke-no-kuni, altitude 4830 feet, July 23, 1923 (*T. Esaki*).

## ESAKIOMYIA, gen. nov.

Antennæ elongate, much longer than the body, presumably 16-segmented in perfect specimens, only ten flagellar segments remaining in the type; flagellar segments beyond the first gradually decreasing in length, each with a basal

enlargement followed by an almost equally dilated central portion, the apex narrowed, the base and central portion with long, conspicuous, outspreading verticils, the longest only a little shorter than the segment. Tibial spurs sinuous, a little less than the apical half smooth; tarsal claws small, smooth. Wings with conspicuous macrotrichiae on all of the longitudinal veins. Venation: *Sc* moderately long, *Sc*<sub>1</sub> ending opposite the fork of *Rs*, *Sc*<sub>2</sub> shortly before its tip; *r* present but faint, five or six times its length from the tip of *R*<sub>1</sub>; *R*<sub>2+3</sub> elongate, about two-thirds *Rs*; inner end of cell *R*<sub>3</sub> lying slightly proximad of cells *R*<sub>5</sub> and 1st *M*<sub>2</sub>; cell *M*<sub>1</sub> lacking; cell 1st *M*<sub>2</sub> elongate, widened distally; basal deflection of *Cu*<sub>1</sub> not far from the slightly pointed inner end of cell 1st *M*<sub>2</sub>, opposite *r-m*; vein 2nd *A* of moderate length, ending shortly before the origin of *Rs*; anterior arculus preserved. Male hypopygium of simple structure; basistyles stout, unarmed; dististyles two, the outer slender, chitinized, microscopically toothed at apex, the outer angle produced into a longer spine; inner style short and broad, pale. *Æ*deagus pale, triangular in outline; gonapophyses appearing as simple divergent rods.

Genotype, *Esakiomyia filicornis*, sp. n. (Eastern Palearctic Region).

This tiny Hexatomine fly is named in honour of my friend, Professor Teiso Esaki. No immediate relatives can be indicated.

*Esakiomyia filicornis*, sp. n.

General coloration reddish brown; wings subhyaline, immaculate.

*Male*.—Length about 3 mm.; wing 4.2 mm.

Rostrum short, brown; palpi dark brown. Antennae very elongate, black throughout, in uninjured specimens probably not less than one-half longer than the body. Head dark grey.

Mesonotum reddish brown, the praesentum with indications of a capillary brown median vitta. Pleura more infuscated. Halteres pale brown, the base of the stem brighter. Legs with the coxae and trochanters reddish brown, the fore coxae a little darkened at base; remainder of legs brown, the bases of the femora vaguely paler. Wings subhyaline, immaculate, the veins dark brown. Venation: as described under the generic characterization; *r* about three times its length beyond the fork of *R*<sub>2+3</sub>; *m* a little shorter than the outer deflection of *M*<sub>3</sub>.

Abdomen light brown, including the hypopygium.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Mt. Hakone, Sagami-no-kuni, altitude 2300 feet, July 12, 1923 (*T. Esaki*).

*Ulomorpha nigricolor*, sp. n.

General coloration shiny coal-black; halteres yellow; femora yellow, the tips conspicuously blackened; wings tinged with yellow, sparsely variegated with brown, including a narrow seam along the cord; distal half of wing with macrotrichia.

*Male*.—Length about 7.8 mm.; wing 7.2 mm.

Rostrum and palpi black. Antennæ of moderate length, if bent backward extending to beyond the wing-root, the scape black, the flagellum brown; segments beyond the base long-cylindrical. Head shiny coal-black.

Thorax entirely shiny coal-black. Halteres yellow. Legs with the coxæ coal-black, the apices of the middle and posterior coxæ reddish brown; trochanters reddish brown; femora yellow, hairy, the tips conspicuously blackened; tibiae yellowish testaceous, the tips narrowly blackened; basitarsi yellowish testaceous, the tips and remainder of tarsi brown. Wings tinged with yellow, the base and cells *C* and *Sc* clearer yellow; a faint brown cloud at origin of *Rs*; a narrow brown seam extending from the stigma along the cord; outer end of cell 1st *M*<sub>2</sub> very indistinctly darkened; a brown cloud along vein *Cu*; veins brown. Conspicuous macrotrichia in all the cells beyond the cord and in the distal ends of cells *R*, *M*, *Cu*, and 1st *A*. Venation: *Sc*<sub>1</sub> ending a short distance before the long *Rs*, *Sc*<sub>2</sub> near its tip; *Rs* angulated and spurred at origin; *r* far from tip of *R*<sub>1</sub>; *R*<sub>2+3</sub> short, about equal to basal deflection of *R*<sub>4+5</sub>; veins *R*<sub>2</sub> and *R*<sub>3</sub> strongly diverging, *R*<sub>2</sub> being parallel with *R*<sub>1</sub>; inner ends of cells *R*<sub>3</sub>, *R*<sub>5</sub>, and 1st *M*<sub>2</sub> in alignment; cell *M*<sub>1</sub> lacking; basal deflection of *Cu*<sub>1</sub> about its own length beyond the fork of *M*.

Abdomen shiny coal-black, including the hypopygium. Male hypopygium with the basistyles stout basally, narrowed to the unarmed tips; outer dististyle chitinized, the apex suddenly narrowed into an acute spine; inner style simple, gradually narrowed beyond the base, setiferous. Gonapophyses appearing as complex chitinized structures, each with two spines that are directed mesad.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Lake Ozenuma, on boundary between

Iwashiro-no-kuni and Kotsuke-no-kuni, altitude 5460 feet, July 26, 1923 (*T. Esaki*).

The genus *Ulomorpha* had hitherto been recorded only from North America.

*Eriocera subrectangularis*, sp. n.

General coloration black, the mesonotal præscutum and scutum light grey pruinose; præscutum with three black stripes; femora dark brown, yellow basally; wings brownish grey with an extensive darker brown pattern;  $R_{2+3}$  subperpendicular at origin; cell  $M_1$  lacking; cell 1st  $M_2$  elongate; abdomen black, the segments light grey pruinose.

*Male*.—Length 8–10 mm.; wing 8·5–11 mm.

*Female*.—Length 14 mm.; wing 11·5 mm.

Rostrum and palpi black. Antennæ black, short in both sexes. Head black; vertical tubercle rather conspicuous, conical.

Pronotum black. Mesonotal præscutum light grey with three very conspicuous black stripes, the broad median stripe split by a capillary line, this becoming more distinct posteriorly; scutum light grey, the lobes with black centres; scutellum and postnotum black. Pleura dark brownish black, sparsely pruinose. Halteres light brown, the knobs darker. Legs with the coxæ and trochanters dark brownish black; femora yellow with about the apical half dark brown; remainder of the legs dark brownish black. Wings brownish grey, extensively but inconspicuously variegated with darker brown; a very large blotch at origin of  $Rs$ ; cord and outer end of cell 1st  $M_2$  broadly seamed with brown; veins dark brown. Venation:  $Sc$  long,  $Sc_1$  ending far beyond origin of  $R_2$ ;  $Sc_2$  slightly beyond this origin;  $Rs$  long, arcuated at origin;  $R_{2+3}$  usually short, sometimes nearly as long as the deflection of  $R_{4+5}$ , in most specimens subperpendicular to the end of  $Rs$ , the latter being in alignment with  $R_{4+5}$ ;  $r$  a little more than its own length from the tip of  $R_1$  and at or beyond mid-length of  $R_2$ ; deflection of  $R_{4+5}$  twice or more  $r-m$ ; cell 1st  $M_2$  very elongate, rectangular, nearly as long as vein  $M_{1+2}$  beyond it; cell  $M_1$  lacking; basal deflection of  $Cu_1$  just before mid-length of cell 1st  $M_2$ .

Abdomen black, the tergites with conspicuous latero-basal, light grey triangles, the median line black; sternites pruinose with light grey. Hypopygium black. Ovipositor with chitinized black valves.

*Hab.* Japan (Honsiu).

*Holotype*, ♂, Kofu, Kai-no-kuni, 1906 (*L. Drouart de Lezey*).

*Allotopotype*, ♀.

*Paratopotypes*, 1 ♂, 1 ♀.

Type in the collection of the Paris Museum.

*Adelphomyia nipponensis*, sp. n.

General coloration reddish brown; head grey; wings with a pale brown tinge, the stigma a little darker brown; cell  $M_1$  present.

*Female*.—Length 3.5 mm.; wing 5.1 mm.

Rostrum and palpi black. Antennæ 16-segmented, black, the outer flagellar segments a very little paler. Head grey.

Mesonotum and pleura almost uniformly reddish brown, the mesopleura weakly infuscated. Halteres testaceous. Legs with the coxæ and trochanters obscure yellow, the latter with lower faces infuscated; remainder of legs light brown. Wings with a pale brown tinge, the ill-defined stigma a little darker brown; veins brown. Sparse macrotrichia in the centres of the distal halves of cells 2nd  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_5$ , 2nd  $M_2$ ,  $M_3$ , all of cell  $M_1$ , and the distal ends of cells  $Cu$  and  $Cu_1$ . Venation:  $Sc_1$  ending opposite the fork of  $Rs$ ,  $Sc_2$  near mid-length of the sector;  $r$  on  $R_2$  about its own length beyond the fork of  $R_{2+3}$ ; cell  $M_1$  present, shorter than its petiole; basal deflection of  $Cu_1$  near two-thirds its length beyond the fork of  $M$ .

Abdomen brown. Ovipositor with the apices of the upcurved valves yellow.

*Hub.* Japan (Honsiu).

*Holotype*, ♀, Yumoto, Shimotsuke-no-kuni, altitude 4832 feet, July 23, 1923 (*T. Esaki*).

The genus *Adelphomyia* is new to Japan.

*Tricyphona seticauda*, sp. n.

Closely related to *T. vetusta*, Alexander; legs black, the femoral bases narrowly obscure yellow; abdomen with the apical half, including the hypopygium, black; tergite and basistyles of male hypopygium with abundant conspicuous silvery setæ.

*Male*.—Length 10 mm.; wing 12.5 mm.

Rostrum dark, grey-pruinose; palpi dark brown. Antennæ with the scape black, the basal segment dusted with grey; flagellum broken. Head dark grey, the anterior part of vertex and orbits narrowly light grey; vertex culminating in a dark tubercle.

Pronotum blackish medially, pruinose laterally. Mesonotal præscutum brownish grey with a black median stripe that is split by a capillary vitta only a little paler than the stripes themselves; lateral stripes dark brown; scutum brownish grey, the lobes dark brown; scutellum and postnotum dusted with grey. Pleura dark, light grey pruinose. Halteres obscure yellow, the knobs dark brown. Legs with the coxæ dark, light grey pruinose; trochanters obscure brownish yellow; remainder of the legs black, the femoral bases narrowly obscure yellow, brighter but no more extensive on the fore femora. Wings tinged with yellow, the base and cell *Sc* brighter; conspicuous brown seams along the cord and outer end of cell *1st M*<sub>2</sub>; brown spots at *Sc*<sub>2</sub>, origin of *Rs*, and on the outer deflection of *R*<sub>2</sub>; wing-tip and costal region narrowly seamed with brown; veins dark brown. Venation: *Rs* strongly arcuated at origin; outer deflection of *R*<sub>2</sub> about one and one-half times its length from the tip of *R*<sub>1+2</sub>; *Rs* in alignment with *R*<sub>6</sub>; *R*<sub>2+3+4</sub> not perpendicular to the end of *1st* *M*<sub>2</sub>; *m* on *M*<sub>2</sub> about its own length beyond the fork of *M*<sub>1+2</sub>; *m-cu* at the fork of *M*.

Abdomen with the basal three tergites brown, the remainder gradually passing into black; basal four sternites yellow, the fifth black with the caudal margin narrowly yellowish; remainder of abdomen, including the hypopygium, black, the latter with abundant conspicuous silvery setæ on the tergite and apices of the basistyles. Dististyle conspicuous, with two subequal lobes, the outer densely set with short blackened pegs, the mesal lobe flattened, the margin rounded, the face set with a relatively few weak setæ.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Lake Ozenuma, on boundary between Iwashiro-no-kuni and Kotsuke-no-kuni, altitude 5460 feet, July 26, 1923 (*T. Esaki*).

#### HETERANGÆUS, gen. nov.

Characters as in *Polyangæus*, Doane, differing as follows: antennæ short, 12-segmented. Wings with a banded pattern. Venation: *Ks* long, spurred at origin; a spur on *R*<sub>2+3</sub> near its origin; *r* lacking; *m* present; supernumerary cross-veins in cell *R*<sub>3</sub>, *R*<sub>4</sub>, *M*<sub>1</sub>, and *M*, the latter approximately opposite the origin of *Rs*. Male hypopygium with the dististyle terminating in a single powerful erect spine.

Genotype, *Polyangæus gloriosus*, Alexander (Eastern Palæarctic Region).

Besides the genotype, the following species belong here:

*H. esakii*, sp. n., *H. japonicus* (Alexander), and *H. spectabilis*, sp. n. All of the known species are Japanese. In *Polyangæus*, *r* is present; *m* lacking; supernumerary cross-veins in cells  $R_3$ ,  $R_4$ , and  $M$ , and the structure of the male hypopygium entirely distinct.

*Heterangæus esakii*, sp. n.

Mesonotal præscutum obscure yellow with three reddish-brown stripes; legs yellow, the segments tipped with black; wings tinged with brown, the costal cell entirely dark brown; a restricted darker pattern along the cord; cross-vein in cell  $R_3$  lying distad of the one in cell  $R_4$ .

*Male*.—Length 10–10.5 mm.; wing 12 mm.

Rostrum and palpi black. Antennæ with the basal segment black, the second brown; flagellar segments obscure brownish yellow, the outer faces darker. Head brown, sparsely pruinose.

Mesonotal præscutum obscure yellow, with three reddish-brown stripes, the median stripe entire, not reaching the suture; remainder of mesonotum reddish testaceous. Pleura testaceous, the sternopleurite darker. Halteres yellow, the knobs more testaceous. Legs with the coxæ brownish yellow; trochanters obscure yellow; femora obscure brownish yellow, clearer at base, the tips broadly blackened; tibiæ yellow, the tips broadly blackened; basitarsi yellow, the tips and remainder of tarsi dark brown. Wings with a strong brown tinge, the costal cells entirely dark brown; cell *Sc* yellow, the base extensively dark brown; a brown seam at  $Sc_2$ ; remaining pattern of the wing pale and restricted, the seams at origin of  $R_s$ , along the cord, and at the supernumerary cross-vein in cell  $M$  more ocelliform, yellowish, narrowly margined with dusky; a pale brown clouding follows the centre of cell  $R$  for its entire length to the cord; brown washes in the stigmal region, along  $R_2$ , and on the supernumerary cross-veins beyond the cord; conspicuous brown washes along the caudal margin, one extending from cell  $Cu_1$  to 1st  $A$ , the second at the end of vein 2nd  $A$  in both cells; a series of small, diffuse, brown dots in cell  $Cu$ ; veins dark brown. Venation:  $Sc_2$  far before the origin of  $R_s$ ; short spurs at origin of  $R_s$  and on  $R_{2+3}$  near origin;  $R_2$  about twice its length from the tip of  $R_{1+2}$ ; supernumerary cross-vein in cell  $R_3$  nearly twice its length beyond the one in cell  $R_4$ ; cross-vein in cell  $M_1$  beyond mid-length of the long cell; *m* oblique, weakly sinuous, about its length beyond the fork of  $M_{1+2}$ ; basal deflection of  $Cu_1$  about one-half its length beyond the fork

of *M*; supernumerary cross-vein in cell *M* sinuous, its proximal end about opposite the origin of *Rs*.

Abdomen dark brown throughout, including the hypopygium. Male hypopygium with the spines at apex of basistyle abundant, slender.

*Hab.* Japan (Honshiu).

*Holotype*, ♂, Lake Ozenuma, on boundary between Iwashiro-no-kuni and Kotsuke-uo-kuni, altitude 5460 feet, July 28, 1923 (*T. Esaki*).

*Paratopotype*, ♂.

This interesting crane-fly is named in honour of the collector, Professor Teiso Esaki, to whom I am very greatly indebted for unrivalled series of Japanese Tipulidæ.

*Heterangæus spectabilis*, sp. n.

General coloration yellowish testaceous; legs black, the femoral bases yellowish; wings whitish subhyaline, cross-banded with brown; cells *C* and *Sc* uniformly dark brown; supernumerary cross-veins in cells *R*<sub>3</sub> and *R*<sub>4</sub> in alignment.

*Female*.—Length about 11 mm.; wing 10·5 mm.

Rostrum and palpi black. Antennæ with the scape black, the flagellum conspicuously light yellow, the segments with long verticils. Head dark grey.

Pronotum dark brown in front, the posterior half obscure yellow. Mesonotum and pleura yellowish testaceous, without distinct markings. Halteres yellow, the knobs conspicuously dark brown. Legs with the coxæ and trochanters light yellow; remainder of legs brownish black, only the extreme bases of the femora yellowish. Wings whitish subhyaline, with a conspicuous brown pattern; cells *C* and *Sc* dark brown, only the caudal margin of the latter above the sector paler; prearcular region and extreme bases of cells *R* and *M* brown; a circular area at origin of *Rs*, in alignment and practically confluent with the broad seam along the supernumerary cross-vein in cell *M*; a band along the cord, broadest on the anterior cord; conspicuous seams on *R*<sub>2</sub>, the supernumerary cross-veins in cell *R*<sub>5</sub>, *R*<sub>4</sub>, *M*<sub>1</sub>, and on *m*, together with seams on the longitudinal veins back from the margin, the whole forming a reticulate pattern; space behind vein *Cu* infuscated, except at base, on *Cu*<sub>2</sub> widening out to form a large area in the distal end of cells *Cu*<sub>1</sub>, *Cu*, and 1st *A*; a similar area at the end of vein 2nd *A* in cells 1st *A* and 2nd *A*; other blotches in basal third of cell *Cu* behind the atrophied branch and in cell 2nd *A* near mid-length; most of the cross-bands have paler centres than the broad darker margins; veins brown, paler in the clear



areas. Venation:  $Sc_2$  some distance before the origin of  $R_s$ ;  $R_2$  less than its length from the tip of  $R_{1+2}$ ; supernumerary cross-veins in cells  $R_3$  and  $R_4$  near the outer ends of cells and in alignment; supernumerary cross-vein in cell  $M_1$  just beyond the mid-length of the cell and slightly distad of the cross-veins in cells  $R_4$  and  $R_5$ ;  $m$  at fork of  $M_{1+2}$ ; supernumerary cross-vein in cell  $M$  opposite the origin of  $R_s$ .

Abdominal tergites brown, the sternites more yellowish, the terminal segments passing into brown. Ovipositor with the powerful tergal valves compressed, gently upcurved.

*Hab.* Japan (Honsiu).

*Holotype*, ♀, Hinoemata, Iwashiro-no-kuni, altitude about 4000 feet, July 24, 1923 (*T. Esaki*).

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VII.—*Description d'une espèce nouvelle de Coccinellide.*

Par le Dr. SICARD.

*Cleothera bromelicola*, sp.n.

♂. Rotundata, convexa, supra glabra, nitida, subtilissime punctata, nigra; capite, prothoracis lateribus margineque antico, maculis elytrorum tribus pedibusque flavis; abdomine brunneo lateribus dilutiore.

Long. 3 mm.

Arrondie, convexe, glabre en dessus, d'un noir luisant avec la tête, les côtés et le bord antérieur du corselet, trois taches sur les élytres et les pieds d'un jaune pâle. Abdomen d'un roux brunâtre, plus clair sur les bords.

Tête flave, ainsi que le labre, avec les mandibules rembrunies à l'extrémité. Palpes et antennes de même couleur que la tête. Yeux verts, recouverts à leur partie postérieure par le bord antérieur du corselet. Celui-ci noir avec une large tache latérale flave étendue sur le quart externe de la base, anguleuse à son bord interne et réunie à une bordure antérieure assez large, émettant à sa partie moyenne une courte bande antéro-postérieure qui n'atteint pas la base. On peut aussi considérer le prothorax comme étant de couleur jaune pâle avec une tache discoïdale noire couvrant la moitié