

New or little-known Crane-flies
from Japan. Part I.

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- Fig. 1a. Cross section of the same at the level a in the former figure. Zeiss Apochr. 2mm×Comp. Oc. 8.
- Fig. 1b. Cross section of the same at the level b in the former figure.
- Fig. 2. Semidiagrammatic view of a ventral eye (same species).
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- Fig. 3. Distal parts of ommatidia (*Sympetrum frequense*); a, median sagittal section, b, peripheral sagittal section, c, section made through the margin of a cornea. Zeiss D×2.
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**NEW OR LITTLE-KNOWN CRANE-FLIES FROM
JAPAN. Part I.**
(Tipulidae, Diptera)

By Charles P. Alexander, Lawrence, Kansas. U. S. A.

The new species described in this paper were kindly sent to me by Mr. AKIO NOHIRA to whom my thanks are due for this as well as other kindnesses in the past. Unless stated otherwise the material was collected by Mr. NOHIRA. The specimens are in the collection of the author.

Subfam. **Limnobiinæ**

Tribe **Limnobiini**

Dicranomyia depauperata, n. sp.

Male.—Length, 5 mm.; wing, 6.6 mm.

Female.—Length, 6.2 mm.; wing, 7.8 mm.

Rostrum and palpi pale yellowish brown. Antennae with the scape yellow, the flagellum pale yellowish brown. Head yellow.

Thorax dull yellow with distinct greenish reflections, especially on the dorso-pleural membranes and near the coxae. Halteres with the stems greenish, the knobs darker. Legs pale with the femora slightly greenish, the terminal tarsal segments brown. Wings with the veins and membrane pale, subhyaline; venation: **Sc** short ending before the origin of the arcuated sector; cell **1st M₂** closed; basal deflection of **Cul** at the fork of **M**.

Abdomen brownish yellow tinged with greenish, the apices of the segments more yellowish.

It is probable that in life the insect is quite greenish throughout.

Habitat: Japan

Holotype, ♂, Kyoto, April 18, 1914.

Allotopotype, ♀.

Limnobia avis, n. sp.

Male.—Length, 12.5—15 mm.; wing, 13.5—18.5 mm.

Rostrum and palpi dark brownish black. Antennae pale brow-

nish yellow. Head dark brown, the genae paler brown.

Mesonotal praescutum obscure yellow with three dark brown stripes, the median one broadest, indistinctly bisected medially by a reddish line; lateral stripes very short, not attaining the suture; scutum dull yellow, the lobes brown; scutellum and postnotum largely brown. Pleura dark brown and pale whitish yellow. Halteres pale. Legs with the coxae brown basally, yellow apically; remaining coxae and the trochanters yellow; femora yellow, the tips broadly brown; tibiae brownish yellow, narrowly tipped with brown; tarsi light brown. Wings yellowish, most intense on the costal region; veins and cross-veins narrowly seamed with brown, especially at the origin of the sector and along the cord; stigma largely pale; venation: **Rs** angulated or spurred at its origin; cross-vein **r** at the tip of **R₁**; tip of wing obtuse.

Abdomen with the basal tergites yellow with a broad median and narrower lateral strips; terminal segments dark brownish; sternites similar, the four basal segments yellow, brownish laterally; hypopygium largely yellowish. The dorsal pleural appendage is produced cephalad in a sharp point, the sclerite suggesting the head and beak of a bird.

Habitat: Japan

Holotype, ♂, Tokuhara, Province Shinano, Sept. 4, 1915; no. 28.

Paratopotype, ♂.

L. avis, var. flavoabdominalis, n. subsp.

Female.—Length, 13. mm.; wing, 13.4 mm.

Similar to the typical form, differing as follows: smaller; head yellow with two linear brown subparallel marks on the vertex; praescutal stripes represented only by two median black marks at the anterior end and four similar marks near the suture; scutal lobes black medially; legs yellow, the tips of the femora very narrowly brown; abdomen clear yellow throughout. Holotype, ♀, no. 32, labelled "III", no-locality.

Libnotes nohirai, n. sp.

Female.—Length, 10.5–13 mm.; wing, 15–17.4 mm.

Rostrum and palpi dark brown. Antennae with the scape brown, the flagellum light yellow throughout. Head brownish gray, clearer gray along the inner margins of the eyes.

Pronotum elongate, dark brown above. Mesonotal praescutum light brownish yellow, whitish pollinose, with four brown stripes, the median pair extending the length of the sclerite, the lateral pair short; scutum brown, the lobes darker; scutellum and postnotum dark brown, sparsely gray pruinose. Pleura yellowish, the mesopleura slightly gray pruinose, darkest on the mesosternum. Halteres elongate, yellow, the knobs a little darker. Legs yellow, tips of the femora broadly black; tips of the tibiae narrowly darkened; last three tarsal segments and the tips of the basal two darkened. Wings with a yellow tinge basally, more grayish outwardly; veins, especially costa, bright yellow except where traversing dark marks where they are brown; veins and deflections, the radial sector and second anal narrowly seamed with dark brown; venation: basal deflection of Cu_1 short, about as long as the $r-m$ cross-vein.

Abdomen yellowish, the tergites more or less distinctly trivittate with brown.

Habitat: Japan.

Holotype, ♀, Iwate, June 1916.

Paratopotype, ♀.

Tribe Eriopterini.

Erioptera (Hoplolabis) asiatica, n. sp.

Female.—Length, 5 mm.; wing, 4.4 mm.

Rostrum and palpi brown. Antennae dull yellow, the apical segments a little more brownish; flagellar segments short-oval. Head yellowish brown.

Thorax brownish yellow, if any bloom is normally present, it is removed by being in alcohol; the usual brownish stripesh on the praescutum; pseudosutural foveae distinct, dark brown. Pleura dull yellow, the mesopleura more brownish. Halteres yellow. Legs with the coxae brown, the posterior coxae darkest; trochanters dull yellow; femora yellow, brownish at the tips; tibiae yellow, narrowly

darkened apically; tarsi brown. Wings subhyaline or whitish with a heavy brown pattern, about seven brown blotches along the costal margin, the largest of these at the origin of the sector, tip of **Sc**₁, tip of **R**₁, and the last at the tip of the wing on vein **R**₄₊₆; similar but smaller brown marks along the cross-veins and deflections of veins and at the tips of the longitudinal veins; venation: the spur in cell **1st M**₂ completely traverses the cell.

Abdominal tergites yellowish brown, the lateral margins darker; basal sternites yellow, the apical ones more brownish.

Habitat: Japan.

Holotype, ♀, Kyoto, April–June 1916; no. 25.

Crypteria japonica, n. sp.

Female.—Length, 7.3 mm.; wing, 8–8.8 mm.

Rostrum, palpi, antennae and head light yellow. Antennae with the first two flagellar segments united into a fusion-segment, there being twelve segments beyond it.

Thorax yellow. Halteres yellow. Legs yellow, the tips of the femora and tibiae narrowly infuscated; tarsi yellowish brown. Wings subhyaline; veins brown, the costal veins more yellowish, especially basally; venation: cross-vein **r** barely evident; **Rs** strongly arcuated; 2nd anal vein ending about opposite mid-length of the sector.

Abdominal tergites dull yellow, the basal third to half of the segments brownish; sternites yellow.

Habitat: Japan

Holotype, ♀, No. 26, without further data, possibly Kyoto.

Paratopotype, ♀.

Tribe **Limnophilini**

Limnophila (Prionolabis) submunda, n. sp.

Male.—Length, 6–6.5 mm.; wing, 7.8–8 mm.

Female.—Length, 7.2 mm.; wing, 8 mm.

Rostrum, palpi, head and antennae black.

Thorax black, subshiny. Halteres yellow. Legs with the coxae and trochanters blackish; femora dull brownish yellow basal-

ly, the tips broadly darkened, broadest on the fore femora (including the outer two-thirds), narrowest on the hind femora (including the outer third); remainder of the legs black. In the female the darkened apices are more extensive on all the legs and the femora are short and stout, somewhat clavate. Wings grayish yellow, brighter yellow basally and on the costa; stigma distinct, elongate-oval, dark brown; cross-veins and deflections of veins seamed with paler brown; venation as in *L. munda* O.S. of the eastern United States.

Abdomen black; valves of the female ovipositor rusty.

Habitat: Japan.

Holotype, ♂, Kyoto, May 4, 1914.

Allotype, ♀, topotypic, May 18, 1914.

Paratype, ♂, with the allotype.

***L. (P.) auribasis*, n. sp.**

Female.—Length, 11.7 mm.; wing, 11.2 mm.

Similar to the last but is a much larger and brighter-colored species. The legs are much longer and more slender, the femora not incrassated as in the same sex of *submunda*; the basal portions of the femora are bright yellow; the wings are much brighter-colored, of a deep orange.

Habitat: Japan

Holotype, ♀, Osaka, April 26, 1915.

Tribe **Hexatomini**

***Eriocera nipponensis*, n. sp.**

Male—Length, 12 mm.; wing, 13.3 mm.

Rostrum dull yellow above, the palpi dark brown. Antennae with the scapal segments conspicuous bright brownish orange beneath, contrastingly dark brown above; flagellum black. Head with the genae dull yellowish; vertex and occiput blackish with a sparse brownish gray pruinosity; frontal tubercle distinct.

Mesonotal praescutum brownish gray with four distinct shiny black stripes, the median pair elongate, narrowed behind, ending just before the suture; remainder of the thorax black, sparsely

silvery gray pruinose, especially on the pleura. Halteres short, light brown, the knobs darker. Legs with the coxae brownish gray; trochanters rusty yellow; femora rusty yellow, the tips blackened, broadest on the fore femora, narrowest on the hind femora; remainder of the legs dark brown. Wings slightly infumed, the costal cell brownish; stigma small, rounded, indistinct brownish seams along the veins and deflections of veins; an indistinct yellowish spot before the stigma; venation: **Rs** elongate; cell **M**₁ lacking.

Abdomen black, subsiny.

Habitat: Japan

Holotype, ♂, Kioto, May 28, 1914.

Paratopotypes, 2 ♂♂