Mayflies From Japanese Torrents

1. New mayflies of the genera Acccretella and Ameletus. by King Imanishi

本邦産蛭団の新種に就いて

<西 篤 司>

Accretella japonica n. sp.

The nymph of this species already reported by Ueno 1 as "A. accretella (sp. nov.)." I have succeeded in obtaining the image by breeding nymphs which were captured in the Hira-gawa, a feeder of Lake Biwa, together with such nymphs as Eptoros sp., Bautis sp., Ameletus montanus n. sp., and Ephemerella trispina Ueno. That this species belongs to the genus Accretella is certain on the basis of the nymphal characters but comparing with Bogen's original description of Accretella adult 2, I must point out a remarkable difference of this species from his A. japonica, viz., the absence of the hind wings. In this respect, this species seems to be nearer to Cloeon than to Ephemerella 3. This is the second species of this genus.

Measurements.

- Length of Male nymph Female nymph Male subimago Female subimago
  - Body 4.5 mm. 4.5 4.0 5.0
  - Forewings 6.3 7.9 5.5
  - Total 15.5 11.7 13.0 8.3

1. Contribution from the Entomological Laboratory of the Kyoto Imperial University, no. 11.
Image 2. General color pale yellowish. Tyrannas eye rubicous, ochre narrowly with pale yellow: lower eye sepia-brown. Notum pale clay yellow. Forewings venose with metallic tints; post-oesophageal space somewhat obscured; longitudinal veins with a pale yellowish tinge: afuscous spot on the middle of cell Sc brun- eous brownish yellowish brown; other crossveins fuscous. Hindwings wanting. Legs light yellowish white; femora and tibiae of the fore legs brownish towards their extremities; tarsi and tibiae amber. Abdominal segment 1-6 whitish, slightly tinted with yellow. Segments 7-10 brownish. Dorsum of segments 7-10 yellowish brown, of which segment 7 darker, segment 8 lighter; ventral paler. Forelegs white; tarsi white.

4. General color pale brownish. Eyes sepia brown. Wings venose; humeral crossvein yellowish; other veins fuscous. Legs white; femora brownish; tibiae; tarsi brown; fore tarsi about 2/3 as long as the femora; tarsi white. Abdomen brownish; segment 7-6 darker; segments 8-10 somewhat fuscous; the base; ventral paler.

Subspecies: 9. General color much paler than the image.

Wings light sepia grey. Legs semi-hyaline.

Holotype—E; May 21, 1936; in the Hira-gawa (altitude 150m.), about 2 km from Lake Biwa.

AllotYPE—E; May 17, 1936; in the Kihune-gawa (altitude 450m.), north of Kyoto City. Types in Entomological Laboratory, Gots. Agr., Kyoto Imperial University, Japan.

This species dwells in the shallow current of clear mountain streams, and is, like Iron, one of the most adaptive species of rapidly nymphs among the same taxes. In this respect Doles's account is interesting in that Buritis baccata is in the Colorado.
the most successful convenient-dwellers within the genus *Batrisis* and has, similar to the species under consideration, only two sexes.

*Anelastis maculata* sp. nov.

This species seems to be nearest to the American species *Anelastis tenta* Needham. As I have not yet examined *A. tenta*, I hesitate to discriminate these two species by the male genital organ. But there are some distinct characters which distinguish this species from *A. tenta* as follows: 4, genital plate produced backward into a triangle in both widened stages. Subsegment of both sexes all crosswise bordered with a brownish tinge. *Nymphs* possess hooks numbering twenty.

**Measurements.**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Male image</th>
<th>Female image</th>
<th>Female subimag</th>
<th>Male nymph</th>
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<td>6.0</td>
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</table>

Description (specimen in alcohol).

*Image 2.* Head brownish; eyes with gray; broad black bands along the inner sides of occipitum brownish. Thorax chestnut-brown; mesonotum light brownish with a subtriangular area of chestnut-brown on either side of the median elevation, a yellowish U-mark on its posterior crest; scutellum fuscous. Pleura and costal areas shaded with pale brown. Wings hyaline with a metallic lustre, brownish at the base; longitudinal veins with an amber tint; crossveins rather whitish; perigonim again dense-porous.


bicent. Forelegs blackish-brown, lighter lines along upper of fore femora; hind legs pale yellowish brown with somewhat smoky tarsi. Abdomen, above yellowish; side brownish; segments 2-6 semi-translucent; a pair of black spots on the distal edge of segment 10. Ventrally, segments 1-2 brownish, segment 1 darker; segments 3-10 light brownish, of which segments 3-5 semi-translucent, segments 7-10 opaque, pruinose. Forelegs deep smoky at the base, paler apically. Setae pale yellowish brown with distinct brown joints. Median seta rudimentary.

4. General color distinctly paler than 3. Eyes smaller and distinctly a pair of longitudinal brownish lines on the vertex. Some cross veins on the primaries tinted light brown. Abdomen light reddish brown due to contained ova; paler beneath. Sterite 7 prolonged and covering nearly half the length of sternite 8. Sterite 9 produced backward into a triangle, slightly shorter than sternite 10, and its point truncated. Sterite 10 bilobed.

Subimago. 4. Very similar to the imago, but cross veins bordered with a brownish ring; sternite 7 not prolonged; setae shorter than the body, much heavier with hairs.

Nymph. Similar to A. velox Dodds* rather than to A. ludens Needham in regard to labium and hypopharynx; distinguished from the above two allied species by the posterior hooks which are twenty in number.

Holocype—3.

Alloctype—4.

obtained by rearing nymphs captured in the Hira-gawa, above mentioned; emerged May 22-23, 1930. Types in Entomological Laboratory, Coll. Agr., Kyoto Imperial University, Japan.

I am very grateful to Prof Dr. H. Yonasu for his constant interest and advice in my work and to Mr. R. Takahiti of the Osaka Institute for Agricultural Research and Assist. Prof S. Kokuzaki of Taitoku Imperial University for necessary literature.

Explanation of figures

Fig. 1. Wing of female louse of Anomalura jersoni n. sp.
Fig. 2. End of male abdomen of the same.
Fig. 3. Wing of female subimagos of Anomalura montana n. sp.
Fig. 4. End of male abdomen of the same.
Fig. 5. Eye of female subimagos of the same.