

ART. XI.—*Notes on New Zealand Ephemeroidea*.

By C. O. LILLIE, M.A., B.Sc.

[Read before the Otago Institute, 9th October, 1900.]

Plate VII.

Nymph unknown.

THE accompanying plate shows drawings of an Ephemeroidea nymph which is to be found in a few streams about Dunedin. The colour is from reddish-brown in the younger stages to brownish-black in the full-grown nymph. The surface is thickly beset with stiff bristles and spines. The legs are markedly flexed, but are shown straightened in the figure. The wing-cases are very prominent, and project from the body.

The nymph is found on stones in swiftly-running water. It swims clumsily by flexing and extending the body, and seems of sluggish habit.

All my attempts to rear it have been unsuccessful.

Note to Art. XX., Vol. XXXI., Trans. N.Z. Inst.

Specimens of the nymph, subimago, and imago of the insect identified as *Atalophlebia scita* were forwarded to the Rev. A. E. Eaton, author of the monograph on the *Ephemeroidea*. Mr. Eaton places it in a new genus, *Deleatidium*, and names the species *Deleatidium lillii*, and gives the following description in his "Annotated List of the New Zealand *Ephemeroidea*" (Art. xi., Trans. Ent. Soc. London, 1899, part iii.):—

"DELEATIDIUM. Eaton.

"Distinguished as a genus from *Leptophlebia* by the ♂ imago having genitalia conformable in pattern to those of an *Atalophlebia*, and by the nymph having tracheal branchiæ in the form of single, ovate, acute, penniveined foliaceous lamellæ. The tracheal branchiæ of the first abdominal segment are reniform, unlike those of the other segments. The cross-veinlets of the fore wing in the typical species are in two of the specimens widely spaced in places, after the manner of those of the species of *Atalophlebia* here illustrated, but in the other specimens of the same and of the other sex the blanks are less noticeable or are filled up. The name in Greek signifies 'a little bait.'

“**Deleatidium hillii** (Eaton).

“*Subimago (in fluid)*.—Wings uniformly light-grey, with opaque neuration. Setæ grey, their joinings towards their tips evenly defined.

“*Imago (dried)*.—♂. Body pitch-brown, the thorax polished above. Femora and fore tibiæ raw umber-brown, fore tarsus and hinder tibiæ lighter in tint, hinder tarsi somewhat of a sepia-grey throughout. Wings vitreous, with pitch-black neuration, except in the fore wing, the finer cross-veinlets of the marginal and submarginal areas that precede the pterostigmatic region (which are deficient in colouring), and the roots of the stronger nervures interior to the humeral cross-vein, which are raw umber-brown; the membrane at the extreme roots is almost imperceptibly tinted raw-umber or greenish. In the marginal area of the fore wing, before the bulla, are usually about 6 faint cross-veinlets, and beyond that 2-4 faint and 8-11 stronger veinlets, all simple. Setæ light sepia-grey with blackish joinings, of which some in the basal quarter are alternately distinct and faint. In the abdomen, segments 3-6 are sometimes transparent and whitish to a variable extent at the base.

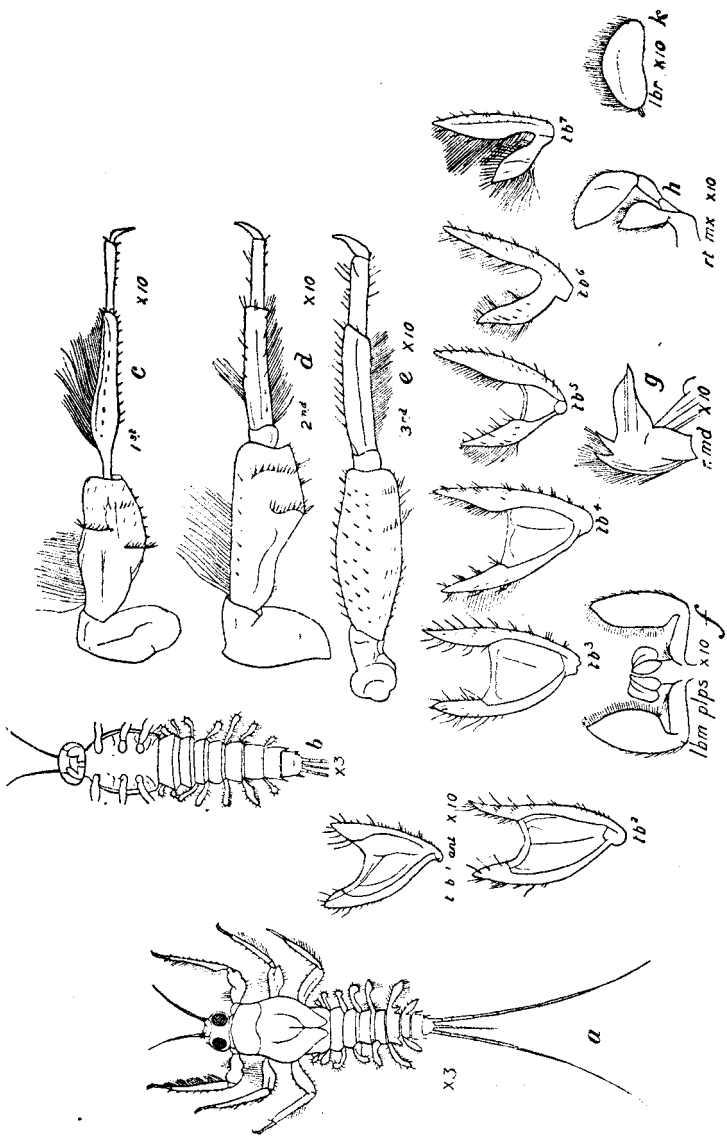
“♀. Very like the ♂, but the colouring at the fore-wing roots, interior to the humeral cross-vein, is rather darker in tint. The marginal area of the fore wing contains about 3-5 faint cross-veinlets before the bulla, and 2 faint and 13 stronger beyond that, all simple. Ventral lobe of the 9th abdominal segment slightly (not deeply) emarginate, with acute points.

“Length of body, 8-9 mm.; wing, 12 mm.; setæ, ♂ im., 51 mm.”

DESCRIPTION OF PLATE VII.

EPHEMERID NYMPH (UNKNOWN).

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| <p>a. Dorsal view.
b. Ventral view.
c, d, e. First, second, and third legs.
f. Second maxillæ and labium.</p> | <p>g. Right mandible.
h. First maxilla, right.
k. Labrum.
i, b., 1-7. Tracheal branchiæ.</p> |
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EPHEMERID NYMPH

Lillie

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