

## The Adult Stages of *Ephemerella* (*Drunella*) *pelosa* Mayo

(Ephemeroptera : Ephemerellidae)

RICHARD K. ALLEN<sup>1</sup>

California State College at Los Angeles

A collection of mayflies on loan from the California Academy of Sciences included the previously undescribed adults of *Ephemerella pelosa* Mayo.

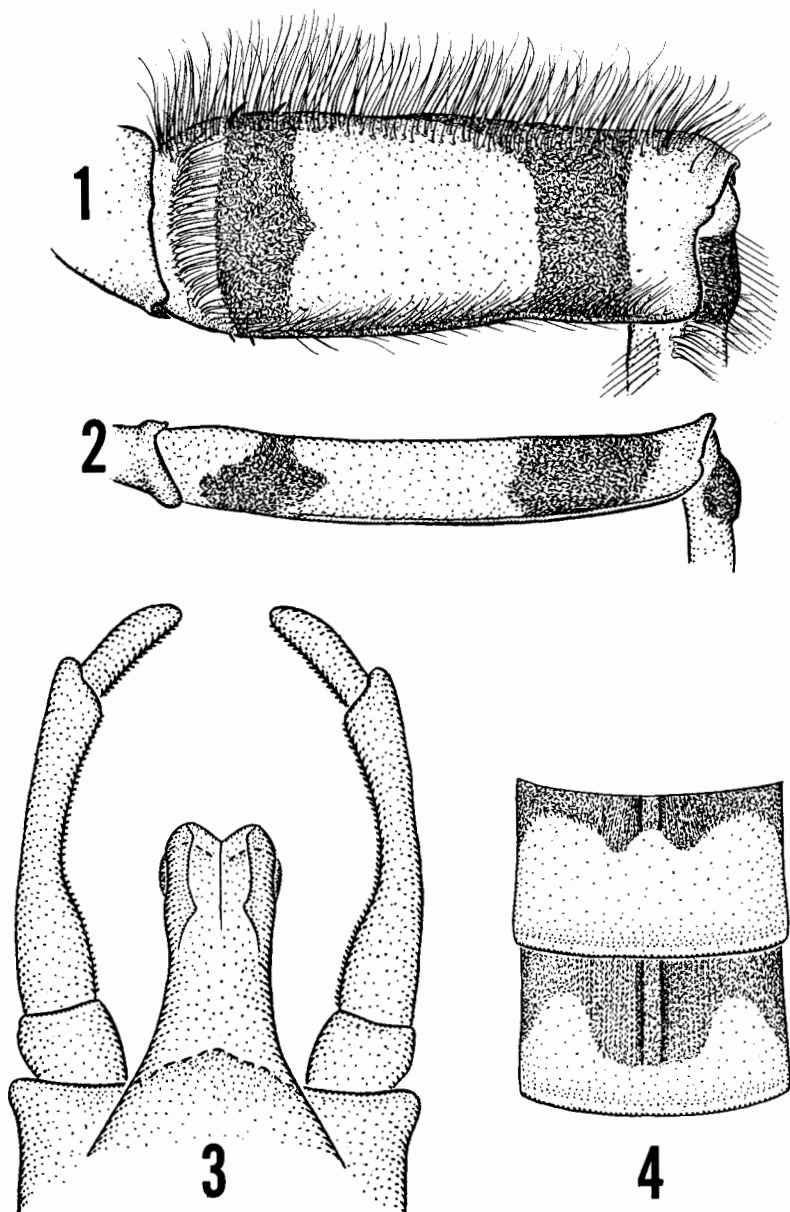
### EPHEMERELLA PELOSA Mayo

*Ephemerella pelosa* Mayo 1951: 121; Allen and Edmunds 1956: 87; Day 1956: 98; Allen and Edmunds 1962: 164.

MALE IMAGO (in alcohol).—Length: body 9.0–10.0 mm; fore wing 10.5–11.5 mm. Head brown, black laterally; bases of ocelli black with a black line from median ocellus to ventral margin of head; upper portion of compound eyes orange, lower portion black. Pronotum light brown; mesonotum brown medially, light brown laterally; scutellum brown; pleura brown; pleural sutures white; thoracic sterna dark brown; sternal sutures purple; fore wing hyaline, stigmatic area opaque; primary longitudinal veins light brown, intercalary and cross veins pale; legs brown and yellow with black markings; forelegs brown; anterior surface of fore femora brown with black bands near apex and base (Fig. 2); fore tibiae dark brown; fore tarsi light brown; middle and hind legs yellowish brown; middle and hind femora yellowish brown with black bands near apex and base; middle and hind tibiae yellow with an apical black macula and suffused with black; tarsi yellow, suffused with black. Abdominal terga pale with purple markings (Fig. 4); abdominal sterna purple with pale lateral margins. Penes with a shallow emargination at apex, apices rounded, and each penis lobe with a ventral subapical protuberance (Fig. 3); subgenital plate between bases of forceps with a conical projection; terminal segment of genital forceps at least 2.5 times as long as broad. Caudal filaments brown.

FEMALE IMAGO (in alcohol).—Length: body 9.0–10.0 mm; fore wing 11.0–12.0 mm. General color paler than male. Head and thorax light brown. Abdominal

<sup>1</sup> The research upon which this report is based was supported by National Science Foundation Grant GB-2425.



## EXPLANATION OF FIGURES

Figs. 1-4. *Ephemerella pelosa*. Fig. 1, left fore femur, nymph; Fig. 2, left fore femur, male imago; Fig. 3, male genitalia, dorsal view; Fig. 4, abdominal terga 3-4, male imago.

terga yellow with purple markings. Other characters as in male except for usual sexual differences.

MATERIAL.—One male and nine female imagoes, Sonora Bridge Camp, near Sonora Junction, Mono County, California, 28 July 1962, D. C. Rentz and C. D. MacNeill, in collection California Academy of Sciences, San Francisco.

REMARKS.—Allen and Edmunds (1962) tentatively placed the nymph of *Ephemerella pelosa* in the subgenus *Drunella* Needham as it possesses a partial adhesive disc analogous to that of *Ephemerella* (*Drunella*) *doddsi* Needham. This placement now seems correct as the adults herein associated as *Ephemerella pelosa* belong to this subgenus.

The male and female imagoes herein described as *Ephemerella pelosa* have not been positively associated with the nymphal stage; however, the following evidence indicates that this association is correct: (1) the nymphal and adult stages both have distinctive black bands on the femora (Figs. 1–2), and (2) the type locality of this species is less than 150 miles from the collection site of the adults.

In most recent treatment of the subgenus *Drunella*, Allen and Edmunds (*op. cit.*), the male imago of *Ephemerella pelosa* will not key beyond couplet 3. The following couplet which will serve to distinguish this species may be inserted after couplet 2.

- 2a. Femora with black bands near apex and base; subgenital plate between bases of forceps with a conical projection ..... *pelosa*  
 Femora without black bands; subgenital plate with a V-shaped or a shallow emargination ..... 3

*Ephemerella pelosa* may be further distinguished from all known species of *Drunella* by the purple markings on the abdominal terga (Fig. 4), and by the shape of the penes (Fig. 3).

#### LITERATURE CITED

- ALLEN, R. K., AND G. F. EDMUNDS, JR. 1956. A list of the mayflies of Oregon. Proc. Utah Acad. Sci., Arts and Letters, 33: 85–87.  
 1962. A revision of the genus *Ephemerella* (Ephemeroptera: Ephemerellidae). V. The subgenus *Drunella* in North America. Misc. Publ. Entomol. Soc. Amer., 3: 145–179.  
 DAY, W. C. 1956. Ch. 3, Ephemeroptera, p. 79–105. In R. L. Usinger (ed.), Aquatic Insects of California. Berkeley and Los Angeles: University of California Press, 508 p.  
 MAYO, V. K. 1951. New western Ephemeroptera, II. Pan-Pac. Entomol., 27: 121–125.