

## A NEW SPECIES OF *EPHEMERELLA* FROM OREGON (Ephemeroptera: Ephemerellidae)

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Through the kindness of Drs. P. O. Ritcher and F. F. Hasbrouck, the entire Oregon State College collection of Ephemeroptera was made available to the author for determination and study. Included in this material were some undescribed nymphs of the *heterocaudata* group which were tentatively placed as *Ephemerella jacobii* McDunnough (Allen and Edmunds, 1956). Additional study has shown these nymphs to be an undescribed species which I take great pleasure in naming in honor of Dr. G. F. Edmunds, Jr. in recognition of his contribution to our knowledge of the mayflies of western North America. I would like to thank Mr. David I. Rasmussen for preparing the figures.

### *Ephemerella edmundsi* n. sp.

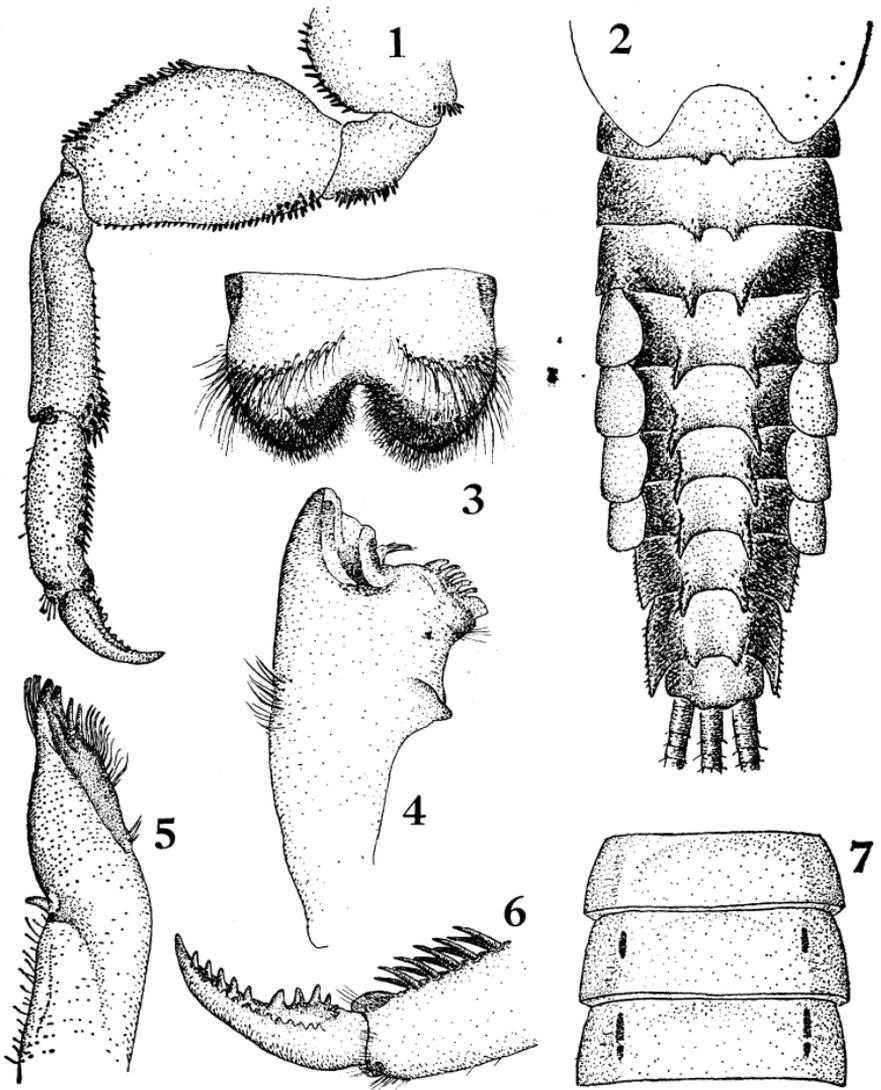
1956. Allen and Edmunds. Proc. Utah Acad. Sci., Arts and Letters, 33:87 (*E. jacobii*?, in part).

Mature nymph (in alcohol). Length: 7-7.5 mm.; cerci 5-6 mm.; terminal filament 8-9 mm. General color uniformly light brown. Head without occipital tubercles; antennae brown; canines blunt, rounded (fig. 4); maxillae with minute, one-segmented palpi (fig. 5). Thorax without tubercles, each sternite with a median patch of short heavy spines. Legs short and thick, with numerous dorsal and ventral spines (fig. 1); claws with double row of denticles, anterior row with 10-14 small denticles and posterior row with 9-12 larger denticles (fig. 6). Abdomen with conspicuous, paired, dorsal submedian spines on segments 1-9 (fig. 2); base of spines narrow on segment one, gradually increasing in width to segment five, narrowing again on segments six to nine; apices of spines divergent on segments 4-8; spines short on segment one, gradually increasing in size to segment seven, decreasing in size on segments eight and nine; lateral margins of tergite eight produced into weak postero-lateral projections, tergite nine with moderate postero-lateral projections; sternites 4-8 with dark dashes on lateral margins (fig. 7). Caudal filaments light brown with whorls of spines at junctions of segments; cerci about two thirds as long as terminal filament.

Holotype: Mature male nymph, Woods Creek, Benton Co., Oregon, 13 May 1937, collected by "Niot," in collection of California Academy of Sciences. Paratypes: 3 female nymphs, McKenzie River, Oregon, 9 March 1939, collected by "J.E.D.," two in collection of University of Utah, one in collection of Oregon State College; 1 female nymph, Fall Creek, Oregon, 3 May 1940, collected by N. L. Sieg, in collection of Oregon State College.

Remarks: *Ephemerella edmundsi* is the fifth species named in the *heterocaudata* group and may be distinguished from the nymphs of the other species by the distinctive dorsal abdominal tubercles, the unique color pattern of the abdominal sternites, the dentition of the claws and by the extreme reduction of the maxillary palpi. Allen and Edmunds (1956) re-

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## EXPLANATION OF FIGURES

Figs. 1-7. *Ephemera edmundsi* n. sp., mature female nymph, paratype. Fig. 1. fore-leg. Fig. 2. dorsal view of abdomen. Fig. 3. labrum. Fig. 4. left mandible. Fig. 5. maxilla. Fig. 6. claw of right foreleg. Fig. 7. 3rd, 4th and 5th sternites.

ported *E. edmundsi* as probably the nymph of *E. jacobi* McDunnough, but examination of a paratype adult female of the latter species has made this association seem unlikely.

## 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.