

METRETOPUS BOREALIS (EATON) IN CANADA  
(EPHEMEROPTERA: AMETROPODIDAE)

GEORGE F. EDMUNDS, JR.<sup>1</sup>

The only species of the holarctic mayfly genus *Metretopus* in North America is *M. borealis* (Eaton). In the literature on North American mayflies, it has been recorded by the name *M. norvegicus* Eaton, but Brekke (2) has shown the name *norvegicus* Eaton, 1901 to be a synonym of *M. borealis* (Eaton) 1871, a name formerly assigned to *Rhithrogena*.

When McDunnough (6) reported specimens of *Metretopus* from Slave Lake, Alberta, he remarked that "The male specimen before me agrees so well with Eaton's figures and description of *norvegicus* that for the present I am listing the species under this name." Through the kindness of Dr. Richard Frey and Mr. L. Tiensuu of the Museum Zoologicus Universitatis, Helsinki, I have examined specimens of *M. borealis* from Finland and have compared them with the specimens in the Canadian National Collection. This comparison proves that the European and Canadian populations are conspecific and apparently indistinguishable. In addition to the two specimens (one male, one female) reported from Slave Lake (Aug. 17, 1924, O. Bryant) by McDunnough, the following additional specimens are in the Canadian National Collection: Rolla, B.C., Aug. 14, 1927, P. N. Vroom, one female; Churchill, Manitoba, July 31, 1937, W. J. Brown, three males; and Newcastle, N.B., July 6, 1928, W. J. Brown, three males. Thus this species is seen to have a widespread distribution in Canada.

There has been some disagreement as to the relationship of the mayfly genera *Metretopus* and *Siphloplecton* in mayfly classification. Lestage (5) placed the two genera in separate families (Metretopodidae and Siphloplectonidae), while Edmunds and Traver (4) have placed both genera in the subfamily Metretopodinae of the family Ametropodidae. After examination of nymphs and adults of both genera, I feel that there are two closely related, but distinct, genera involved.

The nymphs of the two genera are usually distinguished in keys by means of their maxillary palpi, stated to be two-segmented in *Siphloplecton* and three-segmented in *Metretopus* (see Needham, Traver, and Hsu (7), and Burks (3)). Actually the maxillary palpi of *Metretopus* are also two-segmented rather than three-segmented as described by Bengtsson (1).

The most reliable difference in the nymphs of the two genera is found in the shape of the terminal segment of the labial palpi. This segment is rounded in *Siphloplecton* (as seen in *S. basale* Walker), while it is expanded and truncate apically in *Metretopus* (as seen in *Metretopus borealis* from Finland).

<sup>1</sup>This research was supported by grants from the University of Utah Research Fund and the National Science Foundation (U.S.A.) (NSF-G2514).

1. BENGTTSSON, S. Beiträge zur Kenntnis der paläarktischen Ephemeriden. Lunds Univ. Arsskr. N. F. Avd. **2**, 5, 1-19 (1909).
2. BREKKE, R. The Norwegian mayflies (Ephemeroptera). Norsk. Entomol. Tidsskr. **5**, 55-73 (1938).
3. BURKS, B. D. The mayflies, or Ephemeroptera, of Illinois. Bull. Illinois Nat. History Survey, **26**, No. 1, 1-216 (1953).
4. EDMUNDS, G. F., JR. and TRAVER, J. R. An outline of a reclassification of the Ephemeroptera. Proc. Entomol. Soc. Wash. **56**, 236-240 (1954).
5. LESTAGE, J. A. Contribution a l'étude des Ephéméroptères. XVI. Recherches critiques sur le complex Ametro-Metreopodidien. Bull. Ann. Soc. Entomol. Belg. **78**, 155-182 (1938).
6. MCDUNNOUGH, J. New Canadian Ephemeridae with notes, III. Can. Entomologist, **57**, 168-176, 185-192 (1925).
7. NEEDHAM, J. G., TRAVER, J. R., and HSU, Y.-C. The biology of mayflies. Comstock Pub. Associates, Inc., Ithaca, N.Y. 1935.

RECEIVED NOVEMBER 20, 1956.  
DIVISION OF BIOLOGICAL SCIENCES,  
UNIVERSITY OF UTAH,  
SALT LAKE CITY 12, UTAH.