

*AMETROPUS NEAVEI* (EPHEMEROPTERA: AMETROPODIDAE) IN  
THE UPPER PENINSULA OF MICHIGAN<sup>1</sup>

On 12 September 1978, two immature *Ametropus* nymphs were collected from the East Branch of the Ontonagon River in the Upper Peninsula of Michigan as part of a U.S. Forest Service survey of streams in the Ottawa National Forest. They were collected about 50 m upstream from Mud Creek Road (T49N, R37W, Sec.-10), but were too immature for species determination.

On 29 May 1979, 11 mature nymphs were collected from the same site. Three were preserved in 70% ethanol and the remainder returned to the laboratory to be reared. Nymphs remained healthy for about 10 days in an aerated pan containing sand and water, but none emerged and all died after 12 days, probably because of elevated temperatures in the laboratory. All nymphs fit perfectly the descriptions of *Ametropus neavei* McDunnough in Allen and Edmunds' revision of *Ametropus* (J. Kansas Entomol. Soc., 49:625-635, 1976), representing a significant eastward extension of the range of this species. Nymphal characters in couplet 2 of Allen and Edmunds' key have been reversed, but descriptions and illustrations in this publication leave no doubt as to the identity of nymphs we collected.

Our Michigan record and previous collections in Alberta and Saskatchewan suggest that *neavei* is part of the boreal fauna. In the East Branch of the Ontonagon River nymphs were collected by sifting through sand with a D-frame aquatic net in water less than 0.5 m deep. They were found only in a strong eddy where water was moving upstream at 10 to 15 cm/sec. Sand was sampled in various normal currents in other areas of the stream, but nymphs were found only in the eddy. The East Branch of the Ontonagon River is a soft-water stream that is about 25 m wide. It has primarily a sand substrate with some areas of rubble and clay, and reaches a maximum summer temperature of about 20°C. Sampling sand eddies in similar streams in the boreal region of North America prior to their emergence in June will undoubtedly yield additional records of *A. neavei*.

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