

**A NEW JUNIOR SYNONYM FOR THE HOLARCTIC SPECIES  
*AMETROPUS FRAGILIS* ALBARDA, 1878  
(INSECTA: EPHEMEROPTERA: AMETROPODIDAE)**

**Luke M. Jacobus:** Division of Science, Indiana University Purdue University Columbus,  
4601 Central Avenue, Columbus, Indiana 47203 USA

**ABSTRACT.** Based on two previously published and independent studies, the Nearctic species *Ametropus neavei* McDunnough, 1928 (Insecta: Ephemeroptera: Ametropodidae) should be considered a junior synonym of the Holarctic species, *A. fragilis* Albarda, 1878 [= *A. neavei*, **new synonym**].

**Keywords:** Mayflies, systematics, taxonomy, aquatic insects

The mayfly genus *Ametropus* Albarda, 1878 (Insecta: Ephemeroptera: Ametropodidae) has a Holarctic distribution. The distinctive larvae may be found in large rivers and smaller mountain streams with a shifting-sand substrate, where they may be found on submerged logs or leafpacks. Larvae are agile swimmers and sometimes behave as semi-burrowers, when they hide in the substratum with only eyes and antennae exposed (Bauernfeind & Soldán 2012).

McCafferty (2001) considered the Nearctic species *Ametropus albrighti* Traver, 1935 to be a junior synonym of the also Nearctic *A. neavei* McDunnough, 1928, based on the two species being similar and stable in structure, but variable with respect to coloration and maculation of the body, especially the abdomen. *Ametropus neavei* (sensu McCafferty 2001) has been reported from Alaska, east to North Dakota and south to New Mexico; a disjunct population has been reported from the Upper Peninsula of Michigan (McCafferty et al. 2012, Rinella et al. 2012).

Jacob (2006) subsequently considered *A. albrighti* to be a junior synonym of the Palearctic species *A. fragilis* Albarda, 1878, thereby recognizing a Holarctic distribution for the latter species. However, he did not treat *A. neavei* in the same detail as the other two species he recognized in the genus, nor did he

list the publication by McCafferty (2001) among his cited literature.

Based on the combination of these two independent studies, *A. neavei* should be considered a junior synonym of the Holarctic species *A. fragilis* Albarda, 1878 [= *A. neavei* McDunnough, 1928, **new synonym**; = *A. eatoni* Brodsky, 1930 (syn. by Landa 1969); = *A. albrighti* Traver, 1935 (syn. by Jacob 2006; syn. under *A. neavei* by McCafferty 2001)].

Only two extant species of *Ametropus* are known, and both are found in North America. *Ametropus ammophilus* Allen & Edmunds, 1976 occurs only in western North America (McCafferty et al. 2012), and it is distinguished from *A. fragilis* by its much larger size, cleft penes of the male genitalia, a more complex abdominal color pattern (McCafferty 2001) and its more restricted distribution. The two species are known to overlap in their geographic distributions only in a small area of Alberta (McCafferty 2001, McCafferty et al. 2012). In North America, *A. fragilis* is the much more widespread of the two species (Rinella et al. 2012), but it may be endangered in all or part of its Nearctic range (McCafferty et al. 2012).

**MATERIALS EXAMINED**

***Ametropus fragilis.*** One male adult, reared from larva, with associated exuviae (one sub-imago, three larval sets), USA, Wyoming, Sweetwater County, Black's Fork River at I-80, west of Green River City, 6-VII-1968, R&D Koss, deposited in the Purdue University Entomological Research Collection, West Lafayette, Indiana, USA. Note: This material is typical of the *albrighti* variant of *A. fragilis*.

*Corresponding author:* Luke M. Jacobus, Division of Science, IUPUC, 4601 Central Avenue, Columbus, IN 47203, Tel. (812)348-7283, Fax. (812)348-7370 (e-mail: lmjacobu@iupuc.edu).

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