

NOTE

Revalidation of *Fallceon sonora* (Allen and Murvosh), n. comb.  
(Ephemeroptera: Baetidae)

*Baetis sonora* was originally described from six larvae taken from far northern Mexico in the state of Sonora by Allen and Murvosh (1987). The species or any variety of species matching the description of the species have not been reported since that time. Lugo-Ortiz and McCafferty (1994) in their review of the genus *Fallceon* Waltz and McCafferty recognized that *B. sonora* had all of the generic characteristics associated with the latter genus [lacking all *Baetis* complex characteristics (see Waltz and McCafferty 1987)], and placed it in synonymy with *F. quillieri* (Dodds), the most widespread (Central America to Canada) and ubiquitous species of this psammophilous group of small minnow mayflies. The assumption was made that *B. sonora* was merely a smaller-in-size, differently-colored variant of *F. quillieri*.

I have examined numerous populations of *F. quillieri* from central and western North America over the past several years and never found any mature *Fallceon* material as small in size or with the particular tergal color pattern that was associated with *B. sonora*. Recently, however, I and S. Smallidge of New Mexico State University were able to collect several samples from the Rio Grande near Las Cruces, New Mexico, that were an identical match to the Allen and Murvosh description of *B. sonora*. In some samples (Dona Ana Co, Rio Grande, south of bridge on U.S. Hwy 70, west of Las Cruces, 19-X-2002), typical *F. quillieri* larvae were also taken along with the *sonora* type in the same kick screen. Not only were the two types clearly and dramatically different in size

[with mature *sonora* about half the size (ca. 3.0 mm) of the mature *quillieri*], but the markings also differed dramatically as shown by a comparison of the alternating areas of uniformly solid abdominal tergal coloration as illustrated by Allen and Murvosh (1987, fig. 5) for *sonora*, and the more detailed intra-tergal patterning with pale dots and uneven bordering as illustrated by Morihara and McCafferty (1979, fig. 37e) for *quillieri*. Critically, the absence of any intermediate forms where the two types cohabit argues strongly for the recognition of two species.

Therefore, *Fallceon sonora*, n. comb., is formally recombined and revalidated. The possibility remains that the larvae of *F. sonora* eventually may prove to be the undescribed larvae of *F. eatoni* (Kimmins), another little known southwestern species, known presently only from its distinctive adults (see McCafferty 2006).

LITERATURE CITED

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