11 | Chloroperlidae

Before Frison's (1942) revised classification, the status of North American Chloroperlidae was confused by two major misconceptions: the perlodid genus *Isoperla* had been included in the family, and at least one eastern species, *Haploperla brevis* (Banks), had been erroneously assigned to the genus *Chloroperla* as *Chloroperla cyddippe* Newman (1839). Ricker (1935a) established the genus *Hastaperla*, then he (Ricker 1938) indicated that the types of *C. cyddippe* belonged to the genus *Alloperla*. In two papers (Ricker 1943, 1952) he established the two subfamilies Chloroperlinae and Paraperlinae; divided the genus *Alloperla* into the five subgenera *Alloperla, Neaviperla, Suwallia, Sweltsa*, and *Triznaka*; assigned *Chloroperla terna* to the new subgenus *Rasvena*; and erected the new paraperline genus *Utaperla*.

Gaufin (1964) reviewed these and earlier changes in Chloroperlidae classification and assigned the 53 North American species recognized at that time to the Ricker (1935b, 1943, 1952) classification, which included the two subfamilies, seven genera, and six subgenera. Illies (1966) elevated all subgenera to generic status, yielding the 10 North American genera *Kathroperla, Paraperla, Utaperla, Alloperla, Hastaperla, Neaviperla, Rasvena, Suwallia, Sweltsa*, and *Triznaka*. This system has been widely accepted by plecopterists and was used by Zwick (1973) in his presentation of a revised Plecoptera phylogeny. Two new genera have subsequently been added: Surdick (1981a) established the genus *Bisancora*, to which she assigned *Sweltsa pastina* (Jewett) and the new type species *B. rutriformis*, and Surdick (1985) established *Plumiperla* for the species *Triznaka diversa* (Frison) and *Tr spinosa* (Surdick) and divided the Chloroperlinae genera into the three tribes Alloperlini, Suwalliini, and Chloroperlini. Also, she recognized the species *ovibovis* as most closely allied with the genus *Chloroperla* (sensu lato) but suggested that the shape of its skeletal rods indicates that it is probably not a *Chloroperla* sensu Zwick (1967). Therefore, whether there are valid species of *Chloroperla* in North America remains in doubt. Zwick (1977) synonomized the name *Hastaperla* (Ricker 1935a), containing the North American species *H. brevis, H. chilnualna, H. chukcho*, and *H. orpha*, with *Haploperla* Navás (1934b). Most of the changes in classification have dealt with morphological evidence from adults.

Until 1984, the nymphs of Chloroperlidae remained poorly known, not comparatively studied, and therefore inadequately treated in the major keys to North American fauna, even at the subgeneric and generic levels. For example, Ricker's (1959b) key included couplets that would take a chloroperlid nymph only to *Kathroperla* Banks, *Paraperla* Banks, *Chloroperla* Newman, and *Hastaperla* Ricker (same couplet option) or *Allopera* Banks; *Utaperla* was listed as a subgenus whose nymphs were unknown. Neither Jewett's (1968) key to North American genera or the Baumann et al. (1977) key to Rocky