

## 10 | Taeniopterygidae

Frison (1935) was the first North American plecopterist to accept Klapálek's (1905) establishment of the family Taeniopterygidae, encompassing species of *Taeniopteryx*. Frison's classification also recognized *Doddsia*, *Strophopteryx*, and *Taenionema* as genera distinct from *Brachyptera*.

Needham & Claassen (1925) and Claassen (1931) placed all North American species now in this family in the genus *Taeniopteryx* and the family Nemouridae; they considered *Doddsia*, the now invalid *Nephelopteryx*, European *Rhabdiopteryx*, and *Taenionema* as subgenera and assigned *Strophopteryx fasciata* (Burmeister) to the subgenus *Rhabdiopteryx*.

Ricker (1950, 1952, 1959b) did not accept Frison's (1935) classification and chose to combine all North American taeniopterygids into the two genera *Taeniopteryx* (with coxal gills) and *Brachyptera* (all other species without coxal gills) (*Doddsia*, *Oemopteryx*, *Strophopteryx*, and *Taenionema* were considered subgenera of *Brachyptera*); he placed them in the family Nemouridae and subfamily Taeniopteryginae.

Illies (1966) and Zwick (1973) reaffirmed the validity of Klapálek's (1905) and Frison's (1935) designation of the family Taeniopterygidae, and Zwick (1973) divided it into the two subfamilies Taeniopteryginae (*Taeniopteryx*) and Brachypterinae (all other genera). Ricker & Ross (1975) accepted this system, erected the new genus *Bolotoperla* for the species *rossi* (previously assigned to *Brachyptera* or *Taenionema*), described four species (*T. atlanticum* and 3 *Strophopteryx* spp.), and designated species groups in *Oemopteryx*, *Strophopteryx*, and *Taenionema*. The higher classification of the family has subsequently remained stable; four new *Taeniopteryx* species have been described.

The mature nymphs of all Taeniopterygidae species have conspicuously divergent or "swept-wing" wingpads, similar to those of Nemouridae, but they differ from all other taxa previously lumped into the old inclusive family Nemouridae (eg., Capniidae, Leuctridae) in having the second tarsal segment as long or longer than the first. Nymphs were poorly known at the species level and not well defined at the generic level until Harper & Hynes (1971c) described and presented keys to nymphs of the eight Taeniopterygidae species of eastern Canada and Fullington & Stewart (1980) described, illustrated, and provided a key to the nine known *Taeniopteryx* species of North America. These served as a stimulus to subsequent authors who described nymphs of *T. nelsoni* (Kondratieff & Kirchner 1982), *T. pecos* (Baumann & Jacobi 1984), and *T. robinae* (Kondratieff & Kirchner 1984), so that the nymphs of *Taeniopteryx* are now among the best known for any moderate-sized North American stonefly genus. The nymphs of *Doddsia occidentalis* and *Bolotoperla rossi* were described by Ricker (1943) and Kirchner & Harper (1983), respectively, but those of the 4 *Oemopteryx*, 7 *Strophopteryx*, and 12 *Taenionema* species remain poorly defined. K. Stewart and J. Stanger (unpublished data) have reared most of the