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BOOK REVIEW

WIGGINS G.B.: THE CADDISFLY FAMILY PHRYGANEIDAE (TRICHOPTERA). University of Toronto Press, Toronto-Buffalo-London, 1998, 306 pp. ISBN 0-8020-4241-4. Hardbound. Price GPB 90.–, USD 120.–.

This is a comprehensive monograph on one of the smaller families of Trichoptera, with only 74 species in 15 genera recognized. Mainly confined to the Northern Temperate zone, where they inhabit quite varied habitats, the phryganeids are among the most conspicuous and beautiful caddisflies. The earliest attempts to classify Trichoptera placed all of the then known species in the genus *Phryganea* L., but only a few of them belong to this family. This rather long history has brought about some cases of complex nomenclatorial problems and long lists of synonymy.

In the "General section" the general features and the evolution of the family are treated. The extensive systematic section contains keys to and descriptions of all taxa, with good introductions to the genera; it is illustrated with not less than 246 (mostly groups of) figures, including some photographs, and 22 distribution maps. All available information, not only on imagines but also on larvae and pupae, is used – something not often seen in entomological monographs. For each species succint information is provided on their variability, habitats, biology, case making behaviour and distribution. The extensive material examined is listed in an Appendix. The synonymy lists are reduced to what seems to be most relevant for this monograph.

All information in the systematic section is used as a basis for "hypotheses of phylogeny" for genera, and for species in non-monospecific genera. The author insists on "hypotheses", not refraining – like others – from stressing the difficulties encountered and the weaker points of these hypotheses. Phryganeidae are the oldest extant trichopteran family with portable case-making larvae, that also have a fossil record. The fossil evidence is carefully synthesised, but proves to be of little use for phylogenetic reconstructions. Anyway, a relatively primitive position for the Phryganeidae among the families of case-making Trichoptera emerges from all the evidence accumulated.

Several topics tackled will also prove to be of particular interest for the non-trichopterist. Many exciting facts about the building activity of larvae, their pupation behaviour, and some corresponding morphological features, are included (it is curious that the classical pioneering observations and experiments by C. Wesenberg-Lund on *Phryganea grandis* were overlooked). Additionnally, two cases of unusually strong variability in female genitalia in the absence of corresponding variability in the males, cases whose possible evolutive significance is analysed with reference to the problem of allopatric and sympatric speciation, should also prove to be of general interest.

This is a magnificently produced book: merit for it should be shared by the author and by the University of Toronto Press.

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