

## Preference of Micronectidae (Heteroptera: Corixidae) for Low Trophism Lakes: Data from Mazurian Lake District (Northeastern Poland)

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### ABSTRACT

In the lakes of northeastern Poland the occurrence of three *Micronecta* Kirk. species (*Micronecta minutissima*, *M. griseola* and *M. poweri*) was confirmed. Increasing lake trophism and worsening oxygen conditions cause gradual elimination of these species in the following order: *M. poweri*, *M. griseola* and *M. minutissima*.

*Micronecta* species occur in around 37% of the lakes in northeastern Poland. In strongly eutrophic lakes, which make up about 40% of these lakes, only *M. minutissima* was found. Another 40% are lakes with oxygen conditions good enough for *M. griseola* to occur. The purest lakes contain *M. poweri*, a species susceptible to oxygen deficiency; these make up only 6% of all lakes in northeastern Poland.

*Key words:* Heteroptera, Corixidae, Micronectinae, monitoring, lakes, trophism

### INTRODUCTION

Water boatmen (Corixidae) can be used in the trophic classification of lake waters (Biesiadka, 1989, 1990). Correlations between some species of the subfamily Corixinae and the high content of biogenic substances in the water were studied by Savage (1982, 1990). Micronectinae are also very good indices of low trophism and high oxygen content of waters (Wróblewski, 1958, 1980; Biesiadka, 1989; Nam et al., 2000). In Poland, as well as throughout Europe, the subfamily is represented by one genus, *Micronecta*, with five species, four of them found in lakes [*Micronecta scholtzi* (Fieb.), *M. minutissima* (L.), *M. griseola* (Horv.) and *M. poweri* (Dgl. Sc)]. These species occupy only permanent fresh water bodies,