## **COVER ILLUSTRATION**

The cover illustration shows the head and pronotum of an antepenultimate instar, about 7 mm long, of *Isoptena serricornis*. Enormous setal tufts cover the tiny eyes and screen off articulations between mouthparts. Long thick setae at the rear edges of the triangular head are used when the larva digs into the sand, while the dense dorsal pilosity may facilitate moving within the sand. The slender weak tarsus is bent backward from its subapical insertion on the tibia. The tibia carries a comb of massive curved spines and is evidently fossorial. The figure shows a fore leg in ventral view.

## Biology of Isoptena (Chloroperlidae) in focus

Adult Isoptena serricornis (Pictet, 1841) are normally-looking yellow chloroperlids, except that their antennae are serrate; hence the name. The species occurs in north and central Europe, mainly in areas with large glacial sand deposits. The exceptionally hairy larvae live deep in moving sand at the stream bottom, allegedly down to a depth of 5 m; no wonder their life is poorly known. MATHIAS HOHMANN discovered a reasonably large population in Sachsen Anhalt, Germany and he and PETER ZWICK are now working on selected aspects of the species' biology. Ready-to-emerge larvae and adults collected May 2002 yielded sufficient egg masses to elucidate the temperature dependence of egg incubation. First and second instar larvae were obtained and will be described. Since May last year, MATHIAS HOHMANN took monthly random samples. In April this year we will seek field confirmation for the life history suggested by plots of larval size against collecting date. We also hope to find out more about the feeding habits of the larvae. Their guts are always strikingly full of large sand grains which already the second instar ingests. Indeed, ash contributes up to 80% of larval dry weight!

Peter Zwick

## **ZOBODAT - www.zobodat.at**

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