

RESUMO

Macroinvertebrates body size patterns: a simple tool for freshwater bioassessment?

Body size is arguably the single most important ecological trait. It is particularly important in aquatic ecosystems, where species interactions are structured according to size-abundance patterns. Theory predicts that disturbed systems will be dominated by small-sized organisms while non-impacted are expected to include a more diverse range of organism sizes. Based on the assumption that in non-disturbed habitats species achieve their energetic optimal size, while under stressed conditions growth may be constrained, we proposed that it should be possible to evaluate environmental conditions by describing patterns in body size. This ongoing research is based on macroinvertebrate samples from Portuguese river basins and aims to develop a practical tool, with widespread application, for ecological quality assessment. We intent to define a standardized database describing maximum size for each species and to develop a conversion scale so that easily obtainable one-dimensional measurements can be used to calculate a more precise estimate of the biovolume of individual organism.

Joana Neves^{*}

Amadeu Soares

Kieran Monaghan

University of Aveiro

^{*} joana.t.neves@gmail.com

ISSN 1647-323X



PALAVRAS-CHAVE: macroinvertebrates, body size,
freshwater bioassessment