

Application of Body Size Descriptors of Benthic Macrofauna as Innovative Approach for Assessment the Ecological Status of Transitional Waters

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Abstract: The goal of the current study is to test the applicability of innovative ecological descriptors for assessment of the ecological status of transitional waters according to biological quality element benthic invertebrate fauna. The body size descriptors have been verified in relation to abiotic parameters of environment and the structure and disturbance of benthic communities. The assessment of ecological status performed by size descriptors has been compared with the assessment made by univariate and multivariate indices. The results showed that the size-based approach appears to be an objective taxonomic free method for assessment of the ecological status, trophic state and organic load of environment and for description of the ecological structure and disturbance of macrozoobenthic communities.

Key words: Water Framework Directive, body size descriptors, transitional waters, ecological status, benthic invertebrate fauna