

Results of Rapid Hydrobiological Monitoring of Watersheds from the East- and West Aegean Sea River Basin Districts in Bulgaria

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Abstract: A survey on the composition, abundance of macroinvertebrates and application of some biological water quality indices at 36 sites in the West Aegean Sea River Basin District and the East Aegean Sea River Basin District was carried out as a part of a broad study on supplemental water quality survey. Totally 239 macroinvertebrate taxa belonging to 21 benthic groups were established. The dynamics of the parameters number of benthic groups, number of taxa and total abundance depends on the specific ecological conditions. By the applied water quality indices the overall ecological estimation is made. Eight from the sampling sites belong to I category, 19 – II category, 5 – II- III category, 3 – III category and 1 – III – IV category. Principal component analysis (PCA) was used to summarize the major patterns of variation within the physico-chemical parameters. Two Way Indicator Species Analysis (TWINSPAN) was used for classification of the species data. It divided the sites studied into 12 final groups and confirms to considerable extent the separation of the sites in PCA of physico-chemical parameters.

Key words: physico-chemical parameters, macrozoobenthos, water quality indices, East- and West Aegean Sea River Basins, Bulgaria