

Species Composition and Structure of Macroinvertebrate Communities in Arda River

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Abstract: A study on the species composition and contemporary analysis of the structure of macroinvertebrate communities in the upper- and middle course of Arda River (South Bulgaria) in 2002 and 2003 were carried out. Totally 125 taxa, belonging to 17 macroinvertebrate systematic groups (75 genera and 46 families) were found, as a considerable enrichment of benthic fauna in comparison with previous periods is established. Twenty three species and 6 genera from all determined taxa are reported for the first time for the river fauna. The results of the dominant analysis confirm that the studied river section is inhabited by species with different ecological plasticity. A general characteristic of the sites based on the structural parameters is made. A tendency towards a permanent improving and stabilizing of the benthic communities in the bigger part of the studied section of Arda River, corresponding to β -mesosaprobe state is observed. A successive change in the composition of the macroinvertebrate communities downstream the first reservoir and a secondary modification both in the composition and the communities structure downstream the second reservoir is found.

Key words: macroinvertebrate communities, structural parameters, dominant analyses, species similarity, Arda River, South Bulgaria