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USE OF BENTHIC MACROINVERTEBRATES IN THE DIAGNOSIS OF BEGA RIVER WATER QUALITY AND SELF-PURIFICATION PROCESS

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Abstract

The anthropic impact, having various forms, negatively changes the parameters of water quality and disturbs the living environment of benthic macroinvertebrates. The purpose of the present study is to present how the main sources of pollution influence the way of life of the benthic macroinvertebrates community. 20 quantitative benthic samples were collected from different benthic areas of the Bega River water during from June 2014 to February 2017. In addition to identify all the changes that occur in the structure of macroinvertebrates community due to the activities performed by the human population. For the study to lead to conclusive results, samples were collected upstream and downstream from the main sources of pollution. Macroinvertebrates identified the macroinvertebrates and performed tests to determine the density, abundance and frequency of the samples. Based on these data, it is observed that, the presence of benthic macroinvertebrates that are sensitive to pollutants and higher-quality water in the upstream segment waters sector compared to the waters of the central segment where we identified benthic macroinvertebrates that prefer a polluted living environment. In the downstream segment, we could see that the river has a better quality, because naturally flowing on a long distance, allows an improvement in water quality through the self-purification process emphasized by the occurrence of some sensitive groups to pollution.

Key words: Bega River, benthic macroinvertebrates, water quality

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