

Evaluation Benthic Macroinvertebrate Fauna in Relation to Physical and Chemical Parameters in a small sized stream in SW Anatolia-TurkeyBülent YORULMAZ¹, Mustafa AKGÜL², Murat BARLAS¹¹Biology Department / Science Faculty Muğla Sıtkı Koçman University, Turkey²Biology Department t/Institute of Science, Muğla Sıtkı Koçman University, Turkey
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Aim of the study: This study was carried out to determine the benthic macroinvertebrate fauna in relation to physical and chemical parameters of Yuvarlakçay Stream. Yuvarlakçay stream is an important source which influents Köyceğiz Lake, which is highly significant in terms of the ecological and touristic potential. Determination of the water pollution will be contribution to the improvement in the aspect of water quality. Besides there are a few trout farms one of which is large-scale enterprise and the others are small in quantity that works 1200 tonne annually. Although there are researches on ecologically highly popular Yuvarlakçay Stream, this study will be much more accurate and detailed.

Material and Methods: This study has been done between January 2014 and November 2014 in 6 chosen stations on Yuvarlak Stream in seasonal periods. Benthic macro invertebrates have been collected by using a bottom kick net (500 µm mesh) in the field. At the same time, some parameters of water quality were measured in the field and water samples were taken in to polyethylene containers for the others. Water quality of the stream was classified according to WPCD (2004), Klee (1991), and BBI. As for the conclusion, the water quality has been revealed physicochemical and biologically by the samples taken from 6 chosen stations during a year in this study.

Results: Benthic structure of macro invertebrates of Yuvarlak Stream has been revealed by having studied 5976 individuals. Individuals sampled from the stations belong to Turbellaria, Gastropoda, Bivalvia, Hirudinea, Crustacea and Insecta classis. Totally 47 taxa were identified of which 36 taxa belong to Insecta. Results were evaluated by statistical methods and by the national and international index values. When the obtained values handled it was found that Yuvarlakçay Stream was under a pressure of pollution but it was not an extreme.

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Keywords: Benthic macroinvertebrates, Water Quality, Yuvarlakçay Stream.