

ABSTRACT

Hamid, Nurkholish. 2012. **Diversity Makrozoobentos as Bioindicator Malang Brantas River Water Quality**. Thesis. Biologi Department, Faculty Sains and Teknologi, Universitas Islam Negeri Maulana Malik Ibrahim Malang. Advisor I: Dr. Evika Sandi Savitri, M.P. Advisor II: Dr.H. Ahmad Barizi, M.A

Keywords: bioindicator, Diversity, Makrozoobentos, Malang Brantas River.

Brantas River is a river that has a ± 320 km long with a drainage area of $\pm 12\,000$ km². Malang Brantas River is the source or upstream areas have maintained continuity, to preserve a necessary indicator of a marine waters, natural indicators that can be used to see or monitor the quality of water one of them is the use of makrozoobentos as bioindikatornya. Therefore it is necessary to do research on diversity Makrozoobentos as bioindicator Brantas River Water Quality Malang. The purpose of this study was to determine the diversity of the Brantas River Makrozoobentos Malang and to know the status of water quality views of the level of diversity and some physical and chemical factors Brantas river Malang.

The research was conducted in October 2012 to November 2012 using quantitative descriptive methods. Samples were taken at five observation stations in each region that have been determined by using nets and Ekman dredge. Samples were identified in the laboratory Makrozoobentos Ecology and Optics Department of Biology, Faculty of Science and Technology of the State Islamic University Maulana Malik Ibrahim Malang while physical and chemical factors of water tested in the laboratory Department of Chemistry, University of Muhammadiyah Malang.

Based on the results of the study found Makrozoobentos consists of: 12 families are: Hydropcyshidae, Coenagrionidae, Dytiscidae, Gomphidae, Bulimidae, Pyralidae, Lumbricidae I, Lumbricidae II, Hirudidae, Potamonautidae, Thiaridae, Planaridae. At each station there are several different observations on the value of diversity index, Station I (2.092), Station II (2.378), Station III (2.345), Station IV (2.092), Station V (1.553), it shows that out of the station I to V Station there is a change of water quality status, Based on the calculation of the value of diversity and dominance indices and parameters of physical chemistry in the Brantas river showed an association between factors of physics and chemistry to the value of diversity and dominance makrozoobentos index, if the index value keanaekaragaman 2.5 to 2, 0 then the water quality in water quality class I and II, if the index value from 1.9 to 1.0 keanaekaragaman the water quality in Class III water quality standards. If the dominance index value close to 0 means there is no family that dominated other species or community structure in a stable condition. When the dominant index close to 1 means that there are other species that dominate family or community structure unstable, due to ecological pressures.