

ABSTRACT

Zainudin, A. Febby. 2013. **Plankton Diversity as Bioindicator Brantas River Water Quality**. Skripsi, Department of Biology, Faculty of Science and Technology, State Islamic University (UIN) Maulana Malik Ibrahim Malang. Supervisor I: Dwi Suheriyanto, S.Si, MP. Supervisor II: Dr. H Ahmad Barizi, MA

Key Words: Diversity, Plankton, Bioindicator, Water Quality, Brantas river.

Plankton are organisms existence waters can be used as an indicator of changes in biological quality of river waters. Plankton that have a nature always moves can also be an indicator of water pollution. Lately biota monitoring with more attention, given more assertive in expressing stream damage, because it can be influenced directly into the river in the long run, so this study aims to identify plankton, knowing the diversity and dominance of plankton in the waters of the Brantas River.

The research was conducted in the Brantas River ranging from Batu Town to Malang. Observation by exploration methods (direct observation) and the method of randomly selected (*Purposive random sampling*). Parameters measured were Shannon Wiener Diversity Index (H), Simpson dominance index (C), and Plankton abundance indices.

The results showed that there were 16 genera of plankton among 13 genera of phytoplankton which consists of 3 divisions namely, Chlorophyta 7 genus, Chrysophyceae 3 genus and Cyanophyta 3 genus. While the 3 obtained zooplankton genus consisting of two phyla, namely, Protozoa and Rotifera. Plankton abundance in the Brantas River is 710 ind/l. Highest abundance of the genus Dictyosphaerium. Based on the diversity of plankton in the Brantas river at each station is: Sources Brantas river quite good condition not been polluted, Bumiaji river Punten good condition has not been polluted, Sengkaling lightly polluted river, Splendid rivers were classified as polluted and heavily polluted rivers classified tower.