ABSTRACT

Sutaji. 2011. **The Study of Zooplankton Diversity as Bioindicator Water Quality in Aquatic Ranu Pani and Ranu Regulo Bromo Tengger Semeru National Park**. Skripsi, Biology Department, Faculty of Science and Technology, State Islamic University (UIN) of Maulana Malik Ibrahim Malang. Advisor I: Dwi Suheriyanto, S. Si, M.P. Advisor II: Romaidi, M. Si

Key words: Diversity, Zooplankton, Ranu Pani, Ranu Regulo

Ranu Pani and Ranu Regulo Aquatic freshwaters there was in Bromo Tengger Semeru National Park (TN.BTS). The existence of two sources of clean water is increasingly threatened to people of community activities, household waste and agricultural waste. Water quality of both these water sources need to be regularly monitored sustainable that water conditions could be maintained. Therefore, it is need to do research on the diversity of Zooplankton as bioindicator water quality at Ranu Pani and Ranu Regulo TN.BTS. The purpose of this experiment was to determine to identify Zooplankton, know the diversity and dominance and water quality based on the Zooplankton diversity and chemical physics in the waters of Ranu Pani and Ranu Regulo.

This research used descriptive quantitative method, was implemented in May until June 2011 in the waters of Ranu Pani and Ranu Regulo TN.BTS. The sampling is done on limnetic zone in 5 (five) observation stations. As much as 25 ml water sample obtained using formalin preserved with 4% as much as 3-5 drops. Chemical physics observed factors include, temperature, pH, brightness, TDS, TSS, DO, BOD, COD, phosphate and nitrate. Analysis of data are index of diversity and dominance index.

According to the results of this research, showed that observations at the waters Ranu Pani was found 13 genera of zooplankton *Arcella, Nauplius, Trichocherca, Branchionus, Keratella, Polyarthra, Ciclopoid, Chaetonotus, Chollotheca, Undinula, Paramaecium, Lepadella and Tropochylops* Ranu Regulo While on as many as 10 Genus is, *Arcella, nauplius , Chaetonotus, Floscularia, Paramaecium, Monostyla, Undinula, Anuraeopsis, Lepadella, and Trichocherca*. Diversity at Ranu Pani waters is lower than diversity in waters Ranu Regulo, the magnitude of the diversity index is in the waters of Ranu Pani 1,56 and Ranu Regulo 2,06. Ranu Pani dominance in waters greater than Ranu Regulo, the magnitude of the dominance index is at Ranu Pani of 0,36 and Ranu Regulo of 0,16. Based on the value of diversity index, the waters of Ranu Pani and Ranu Regulo being classified as polluted and based on raw water quality of government regulation No. 82 of 2001 belong to class II and III.