

## ABSTRACT

Hidayat, Sijid Maulana.2012 **Role of water hyacinth (*Eichhornia crassipes*) Decrease In Heavy Metal Pollution Levels of Lead (Pb) in the waters of Reservoir District Sengguruh Kepanjen Malang Regency**. Thesis. Department of Biology, Faculty of Science and Technology, State Islamic University Malang Maulana Malik Ibrahim. Mentors I: Sandi Evika Savitri, M.P. Mentors II: M.Imamuddin.M.A

Keywords: Heavy Metal Lead (Pb), Water hyacinth (*Eichhornia crassipes*), Reservoir Sengguruh

Sengguruh reservoirs located in the Village District Sengguruh Kepanjen Malang is one of the existing dam in the southern city of Malang. Sengguruh reservoir that serves as a reservoir Hydroelectric Power Plant (hydro) as well as the filter input load Sutami Dam and Reservoir Lahor. Many industrial and household waste that enters the body and the flow Lesti Kali Brantas River Basin causes each location sengguruh waters polluted by heavy metals lead (Pb), with a population of water hyacinth can reduce the concentration of heavy metals in water, so it is necessary to study pollution levels heavy metals lead (Pb) in the waters Sengguruh Reservoir. The purpose of this study to determine the differences in concentrations of heavy metals (Pb) in water hyacinth and water pollution as well as determine the level of heavy metals lead (Pb) in the waters Sengguruh Reservoir.

The experiment was conducted in June 2012. This research includes exploratory study with a purposive sampling method. Samples were taken at three stations in each water by hand. Water and plant samples in the analysis in the laboratory of Chemistry Department of Teacher Training and Education Faculty of Muhammadiyah University of Malang.

Survey results revealed the existence of differences in heavy metal content of lead (Pb) in water and water hyacinth plants in all locations. At the location of water stations I mean heavy metal content is 2785 ppm, station II the average heavy metal content is 0904 ppm, the average station III heavy metal content is 0:13 ppm. In the water hyacinth plant organ content of heavy metals lead (Pb) in the location of the station I reach the root of the average 3669 ppm, 5499 ppm stems, leaves 1791 ppm. Station II the average heavy metal content of 4438 ppm root, stem 5322 ppm, 1633 ppm leaves. Station III the average heavy metal content of 1299 ppm root, stem 0957 ppm, 0629 ppm leaves. Based on this research can also be known that the organ which has the potential to absorb heavy metals Pb in the organs of roots and stems that reach an average content of heavy metals lead (Pb) ppm 2:35 roots, stems 2.95 ppm at all locations.