

## ABSTRACT

Amin, Moh. Zainul. 2012. **Content Analysis of Lead (Pb) At Talus Lichenes In Lamongan**. Skripsi. Department of Biology, Faculty of Science and Technology of the State Islamic University Maulana Malik Ibrahim Malang. Supervisor: (I) Dr. Ulfah Utami, M.Si. (II) Umaiatus Syarifah, M.A.

**Key words:** Lichenes, Lead (Pb), Traffic Density.

Lead (Pb) is a heavy metal that is very dangerous and has a high toxicity level for not biodegradable and can accumulate in the tissues of living things such as the talus Lichenes. Levels of contaminants Lead (Pb) can be determined using bioindicator, is through the analysis of the content of pollutants Lead (Pb) contained in the indicator. In this study, used Lichenes growing wood skin to measure pollutant concentrations of Lead (Pb) in air resulting from motor vehicle emissions.

The research was conducted in July-August 2012 by taking five different observation stations in Lamongan *purposively* selected based on the level of traffic density and direction of the wind, which is on the highway Deket and the highway Babat (high traffic density), highway Pantura and highway Mantup (medium traffic density), and highways Sumberwudi (low traffic density). Lichenes taken at each station, which is on the 3 sample trees with a height of 150 meters and a distance of 0-3 meters observation (nearest distance to the highway), 10 meters and 20 meters. The parameters analyzed were Lichenes types, Lead (Pb) content in the talus Lichenes, encounter frequency and percentage Lichenes density.

The results showed Lichenes found 7 species at five observation stations in Lamongan is *Lepraria* sp, *Graphis* sp, *Hafellia levieri*, *Opegrapha atra*, *Lecidella elaeochroma*, *Cryptothecia scripta*, and *Parmelia sulcata*. There are differences in the levels of Lead (Pb) on Talus Lichenes in five observation stations in Lamongan district, which is influenced by the density of traffic. Levels of Lead (Pb) average at station A (6,07 ppm), station B (6,02 ppm), station C (4,29 ppm), station D (4,17 ppm), and station E (2,32 ppm). Lichenes encounter frequency at five observation stations in Lamongan ranged 33,3% - 66,7%. and the lowest percentage Lichenes density of 17.94% and a high of 68.03%.