

## ABSTRACT

Prasetyo, Dony Heru. 2014. **Diversity of Surface Soil Arthropods on Nature Reserve Manggis Gadungan and Coffee Plantation Mangli in Subdistrict Puncu District Kediri**. Thesis. Department of Biology. Faculty of Science and Technology. The State of Islamic University Maulana Malik Ibrahim Malang. Advisers : (I) Dr. drh. Hj. Bayyinatul Muchtaromah, M.Si and (II) Dr. H. Ahmad Barizi, M.A

**Keyword:** Diversity, Surface Soil Arthropods, Nature Reserve, Coffee Plantation, Kediri.

Surface soil arthropods are all species of arthropods are its activities and or place his life at surface soil. The most important role of Surface soil arthropods in ecosystems is as a decomposer and predator. Surface soil arthropods it also can be as one of the indicators in determining the stability of an ecosystem. so this research aims to identify and knowing the diversity of Surface soil arthropods pada on Nature Reserve Manggis Gadungan and coffee plantation Mangli in Subdistrict Puncu District Kediri.

Research conducted on Nature Reserve Manggis Gadungan and coffee plantation Mangli in Subdistrict Puncu District Kediri in October–November 2013. Research are descriptive quantitative with exploration method. Data retrieval implemented by using absolute method (direct observation) 30 plot, and relative methods with 30 Pitfall Trap at each venue.

The results on Nature Reserve Manggis Gadungan 22 family and 3062 individuals include herbivores (5 family), predators (12 family), detrivors (1 family), decomposers (4 family), coffee plantations 19 family and 4531 individuals include herbivores (6 family), predators (12 family), detrivors (1 family), while the coffee plantations intercropping 16 family and 6690 individuals include herbivores (6 family) and predators (10 family). Diversity ( $H'$ ) surface soil arthropods by using absolute method Nature Reserve Manggis Gadungan is (2,22), coffee plantations is (1,80), and coffee plantations intercropping is (1,66), whereas with relative methods (*pitfall Trap*) Nature Reserve Manggis Gadungan yaitu (1,80), coffee plantations is (1,56), dan coffee plantations intercropping is (1,41). Cumulatively results on Nature Reserve Manggis Gadungan index diversity 2,13 with index dominance 0,21, coffee plantations index diversity 1,76 with index dominance 0,26, and the coffee plantations intercropping index of diversity 1,61 with index dominance 0,29, so the location has a index of diversity Nature Reserve Manggis Gadungan higher compared to other locations.