DIVERSITY OF SOIL ORGANISM IN THE RHIZOSPHERE ECOSYSTEM OF SIAM WEED (Chromolaena odorata) ON VOLCANIC LAND, BEACH, AND KARST

by Siti Umniyatie, M.Si., Dr. Tien Aminatun, M.Si, Anna Rakhmawati, M.Si

ABSTRACT

Siam weed (Chromolaena odorata) is a tropical weed that is difficult to control the population because it's invasive. The purpose of this study was to determine: (1) the condition of the edafik ecosystem Siam weed rhizosphere that grows in volcanic soil, beach and karst; (2) the relationship between the diversity of organisms (colembola,, nematode and mycorrhizal) with the edafik condition on ecosystems Siam weed rhizosphere growing on volcanic land, beach, and karst, and (3) a difference in the community structure of organisms (colembola, nematodes, and mycorrhizae) in the rhizosphere Siam weed ecosystem that grows in volcanic land, beach and karst.

This study is exploratory from April to October 2016. Exploration was carried out in three locations,: (1) land volcanic, in Pentingsari, Cangkringan, Sleman D.I. Yogyakarta, (2) karst land, in Imogiri, Yogyakarta D.I, and (3) land sandy beach, in Depok. Kretek, Bantul, D.I.Yogyakarta. The composition of the mycorrhizal and Colembolla in soil sandy beaches are likely to be supported by soil moisture conditions were ideal (15.6%), and the soil texture. Other environment conditions that is pH and temperature do not appear to affect. The content of mycorrhizal and colembola seem to contribute soil nutrients, especially P (P_2O_5) is high on the sandy beach land and volcanic land.

Kata Kunci: *soil organism diversity, rhizosfer ecosystem, Siam weed, volcanic land, beach and karst*