Watcharapan   Polarmart 2011: Diversity of Mushrooms in the Community Forest Development Project of Ang-et Village (The Chaipattana Foundation) Tokphrom Subdistrict, Khlung District, Chanthaburi Province. Master of Science (Forest Biological Science), Major Field: Forest Biological Science, Department of Forest Biology. Thesis Advisor: Asistant Professor Uthaiwan Sangwanit, Ph.D. 276 pages.

The study of diversity of mushrooms in the Community Forest Development Project of Ang-et Village (The Chaipattana Foundation) Tokphrom subdistrict, Khlung district, Chanthaburi province was carried out by surveying mushrooms growing in the sample plots located in the forest area part. The nature study trail in the forest was used as a base line. The sample plots were laid at every 25 meters interval and on both sides of the base line. The center of each plot was 10 meters away perpendicularly to the base line and had 5 meters in radius. There were 76 plots in total. The mushroom survey was done once a month during July 2009 to June 2010. Results of the study revealed 106 mushroom species including 5 unidentified species. They were taxonomically classified to 2 phyla; Ascomycota and Basidiomycota. In the phylum Ascomycota, there were 8 species, 3 genera, 3 families, 2 orders, 2 subclasses, 2 classes and 1 subphylum. In the phylum Basidiomycota, there were 98 species, 48 genera, 23 families, 8 orders, 2 subclasses, 1 class and 1 subphylum. The found mushrooms were divided into 2 groups according to their derived food sources, including saprophytic mushrooms (101 species) and symbiotic mushrooms (4 ectomycorrhizal mushrooms, 1 termite mushroom). In term of usage, there were 16 edible species and 2 poisonous species. The species number, fruit body quantity found in each month were related positively with monthly rainfalls ($r = 0.764$ with $p < 0.01$ and $r = 0.725$ with $p < 0.01$). The diversity index of mushrooms found in each month were related positively with monthly rainfalls ($r = 0.524$ with $p = 0.08$). The species number and fruit body quantity in each month were related positively with monthly average temperature ($r = 0.111$ with $p = 0.732$, $r = 0.167$ with $p = 0.605$). The diversity index of mushrooms found in each month were related negatively with monthly average temperature ($r = -0.235$ with $p = 0.463$). July to September 2009 and June 2010 were the months which had high mushroom diversity. Therefore, these months are recommended for conducting mushroom study tours in the area. Information of all the mushrooms found in this study can be used to publish the mushroom guidebook of the area. For edible mushrooms, they should be further developed to benefit community in the future.

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