

Somjai Mateeyonpiriya 2009: Diversity of Mushrooms in the Area of the Plant Genetic Conservation Project under the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn Sai Yok District, Kanchanaburi Province. Master of Science (Microbiology), Major Field: Microbiology, Department of Microbiology. Thesis Advisor: Associate Professor Poonpilai Suwanarit, M.S. 134 pages.

The purpose of this research was to study diversity of mushrooms in the area of the Plant Genetic Conservation Project under the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn Sai Yok District, Kanchanaburi Province. A Comparative study on diversity of mushrooms in a dipterocarp forest and a mixed deciduous forest during summer, rainy season and winter was conducted. A sampling plot size of 100 m x 50 m was used in both forest. The survey was done in every season during October 2003 – September 2004. The mushroom samples were identified using their macroscopic and microscopic features. Each mushroom sample was described in details and diversity index was calculated from the survey results.

From 132 mushroom samples collected sixty five species of mushroom were found. However , forty nine species were identified and 16 species were unidentified. It was found that the mixed deciduous forest was more diverse in term of type and number of mushroom than the dipterocarp forest. In the mixed deciduous forest, there were 55 species 29 genera, 16 families and 8 orders, while in the dipterocarp forest., there were 24 species 13 genera 9 families and 6 orders of mushrooms. Similarity index on species of mushroom in the two forest showed low similarity between these two types of forests. In term of season comparison, it was found that number and diversity of mushrooms and amount of rains were related as the number and diversity of mushroom were at the maximum in the rainy season. A comparison of mushrooms diversity during in May to September showed that species and number of mushrooms were highest in May of which the amount of rain was at the maximum of the year.

---

Student's signature

---

Thesis Advisor's signature

\_\_\_\_ / \_\_\_\_ / \_\_\_\_