

Community structure of macrofungi in Lambir Hills National Park, Sarawak

Satoshi YAMASHITA¹, Takuya INOUE², Tohru NAKASHIZUKA¹

¹ Research Institute for Humanity and Nature, Japan

² Kyoto University, Japan

Fungi play an important role in the maintenance and reproductive processes in forest ecosystems as ectomycorrhizal, parasitic and saprotrophic fungi and their fruitbodies are used as a key indicator of the fungal community structure. Macrofungi, whose fruiting bodies are visible with naked eyes, contains various taxa, such as Agaricales, Aphyllophorales, and Phallales, with its own functional role.

In Southeast Asia, enormously diverse species richness in plants is observed, and it is expected that diverse fungi live in a forest and contribute to the maintenance of plant species richness. Because there are many unknown fungal species in this region, an inventorial study is needed. In this study, we surveyed fungal flora in Lambir Hills National Park during 3 days as a first step to reveal fungal community structure in a lowland rain forest.

We set a trail with about 200m long in the park. Then, we picked fruiting bodies of macrofungi appearing within 2.5m on both sides of the trail and brought them to laboratory. We made two trials in 2005: one in July 30 and August 1, and the other in August 3. We recognized conspecific fruiting bodies appeared within 50 cm each other as a patch.

A total of 112 fruiting bodies appeared during the study period and it included 75 patches of Agaricales and 23 patches of Aphyllophorales. In Agaricales, Boletaceae was one of the dominant families in the number of patches (20 patches).

We will discuss the pattern of fungal taxonomic richness in Lambir Hills National Park at the species level.