THE DIVERSITY OF MACROFUNGI FROM THE SOUTHERN PART OF ULU MUDA FOREST RESERVE COMPLEX

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Abstract - The Ulu Muda Forest Reserve is the largest of the numerous forest reserves in the Ulu Muda region, which is situated in the eastern section of Kedah, close to the Malaysia-Thailand border. The Ulu Muda Forest Reserve has a variety of vegetation types, including limestone vegetation, lowland dipterocarp forest, hill dipterocarp forest, and upper dipterocarp forest. One of the most fascinating natural sites in Kedah is the forest, which has a total area of 46,720 hectares when adding its water catchment area. It has long been acknowledged for its significance in protecting biodiversity. There are records of the plant and fauna diversity in Ulu Muda Forest Reserve from the previous Scientific Expedition in 2003, but none on macrofungi. Therefore, under the project “Microbes and insects as biological indicators for the stability of ecosystems, forest health and conservation of selected species” brings a glimpse to document some the macrofungi diversity presence from this forest. This data will serve as a baseline for the region's fungal diversity and aid in a better understanding of Ulu Muda Forest Reserve's rich biological diversity. From April 2016 to April 2017, five series of fungal surveys were conducted in a few compartments in the southern Ulu Muda Forest Reserve, close to the Weng District. Along with recently built 1-kilometer transects inside the chosen compartments, the survey was conducted along existing trails and logging roads. A total of 162 specimens from 61 genera and 35 families were tallied. The most prevalent families were the Polyporaceae, Amanitaceae, and Russulaceae. The Polyporaceae are predominantly saprophytic fungi that grow on woody ground detritus. While the members of Amanitaceae and Russulaceae are ectomycorrhizas and can be found growing on the soil near the host trees. It was discovered that the presence of host trees from the families Dipterocarpaceae, Fagaceae, and Fabaceae was associated with a high prevalence of ectomycorrhizal fungi.

Keywords: Macrofungi, southern Ulu Muda, baseline