

Diversity of Microscopic and Macroscopic Fungi in Kaeng Krachan National Park

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Kaeng Krachan National Park is the largest national park in Thailand and composes of many kinds of forest, such as evergreen forests and deciduous forests. It locates in western region of Thailand and its territory closes to forests of Tung-Yai-Naresuan Wildlife Sanctuary and in Myanmar where are recognized as the complex ecosystem in South-East Asia. Therefore, forests in Kaeng Krachan National Park may be showed high biodiversity of microbial resources, especially fungal diversity. Fungi are an important group of forest microorganisms that plays a role in biodegradation and nutrient recycling in forest ecosystem. Moreover, several fungal species were applied to biotechnological applications, including agriculture, environment, industry and medicine. However, data of fungal diversity in Thai forest are limited. Therefore, Forest Entomology and Microbiology Group, Forest and Wild Plant Conservation Research Office, National Parks, Wildlife and Plant Conservation Department and Faculty of Medical Science, Naresuan University, were generated the cooperative research program to analyse microscopic and macroscopic fungal diversity in Kaeng Krachan National Park, by culture-dependent and culture-independent approaches. Factor affecting on fungal diversity and distribution, including physical, chemical and biological factors, were also studied. The completed data obtained are essential for forest management, bioresource conservation, and understanding of distribution and ecological roles of fungi found in this national park. Furthermore, fungal strains isolated were detected and measured the activities of several types of extra- and intracellular enzymes as same as their biotechnological potentials determined.

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