

Myxomycetes assemblages associated with major substrate types in Phia Oac National Park: distribution and composition

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Myxomycetes (plasmodial slime molds) are amoeboid fungus-like protists that form often clearly visible fruiting bodies (sporocarps) and can be encountered in almost every terrestrial ecosystem. Intensive studies on myxomycete diversity have been carried out throughout the world, however the paleotropics still remain poorly studied in comparison with the neotropics [1]. In general, information about the distribution and substrate preferences of myxomycetes includes data obtained from field collections of sporocarps as well as records from moist chamber cultures (MCC) [3]. This technique increases efficiency and research quality since more species, including those with minute sporocarps, can be observed during dissecting microscope examination of substrates in a laboratory.

In this study we investigated the myxomycetes assemblages in the tropical mountain forests of Phia Oac National Park in Northern Vietnam for two subsequent years. The study sites were located at altitudes ranging from 1000 to 1850 m in such a way as to cover the maximal variety of vegetation types [2]. Submontane and lower montane closed canopy evergreen tropical monsoon broad-leaf forests and an artificial plantation of *Pinus massoniana* are three distinct habitat types, where samples of four different substrate types for MCC were collected.

The corticolous myxomycetes assemblage observed on living tree bark included such species as *Diderma deplanatum*, *Licea operculata*, *Paradiacheopsis solitaria*, and *Trichia ambigua*. Samples of the ground litter are a substrate type represented by leafy forest litter, decaying twigs, living trees and lianas bark, coarse woody debris, woody fruits and debris consisting of fleshy herbaceous plant parts. The most common species present on this substrate appeared to be *Licea bulbosa* and *Arcyria marginoundulata*. A new taxon of Stemonitidales with a unique type of capillitium was also found on ground litter substrate. Plant aerial litter mostly represented by banana leaves (*Musa* sp.) as well as litter of tree twigs attached to or trapped in the branches of living trees, lianas or giant grasses revealed several species of the genus Perichaena: *P. calongei*, *P. pedata* and *P. dictyonema*. The assemblage of *Clastoderma debaryanum*, *Cribalaria microcarpa*, and *Licea pygmaea* was represented on decaying coarse wood debris. Some species, such as *Arcyria cinerea* and *Paradiacheopsis longipes*, demonstrated no specific preference for any substrate type.

We acknowledge the support from "Ecolan 1.2" (the Russian-Vietnamese Tropical Centre) and the "Taxonomic diversity, ecology and physiological and biochemical features of fungi and fungus-like protists of Vietnam AAAA-A19-119080990059-1" (Komarov Botanical Institute RAS) programs.

Источники и литература

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