

Scientific Theme : 6 Diversity and Conservation**Session : 6.2 Diversity of tropical lichens**

Account ID IMC1359

Abstract ID ABS0974

Lichen communities in changing forest structures in a natural heritage site of a tropical rain forest, ThailandWetchasart Polyiam^{1*}, Supattara Phokaeo¹, Sumrit Senglek¹, Pitakchai Fuangkeaw¹, Santi Watthana²,
Kansri Boonpragob¹¹Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkok, Thailand²Queen Sirikit Botanic Garden, The Botanical Garden Organization, Chiang Mai, Thailand

This investigation of lichen communities on bark of common trees in three areas near the tropical rain forest at KhaoYai National Park aims to explore how lichen community diversity is influenced by changing forest structures during natural restoration. A total of 46 plots, 10 x 20 cm², were placed on tree trunks 1 m above ground. Forty-six trees, consisting of 11, 21 and 14 trees from the secondary forest, ecotone and primary forests respectively, were included. Lichen specimens within the sampling plot were then collected for identification at Ramkhamhaeng University. The lichens comprised 151 taxa (52 genera). The highest diversity was found from ecotone, and subsequently less in the secondary and primary forests, consisting of 86, 74, and 36 species respectively. The highest variation of species was noted among the forest types with beta diversity value of 21.7, while the highest similarity (41%) was found between the secondary forest and ecotone. This may be due to the effect of open canopy and similar tree species. The more abundant lichens from the secondary forest and ecotone were *Chapsa indica*, *Graphis rhizicola*, *Hemithecium chrysenteron*, *Platygramme pudica*, *Sarcographa labyrinthica*, and *Trypethelium tropicum*. In contrast, the primary forest with closed canopy was dominated by *Ocellularia allosporoides*, *O. maxima*, *Porina nuculastrum*, and *P. tetracerae*. Different lichen communities in the two main forest types indicate that each forest supports its own lichen community. This study underpins the importance of forest type and diversity of trees for conservation of lichens in the tropical rain forest.

Keywords: Lichen community, conservation, tropical rain forest

*Presenter : Wetchasart Polyiam

Email : wetchasart1p@gmail.com