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**Lichen community on acid bark in the deciduous dipterocarp forest at KhaoYai National Park, Thailand**Sumrit Senglek<sup>1\*</sup>, Santi Watthana<sup>2</sup>, Kansri Boonpragob<sup>1</sup><sup>1</sup>Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkok, Thailand<sup>2</sup>Queen Sirikit Botanic Garden, The Botanical Garden Organization, Chiang Mai, Thailand

Bark pH is a factor that influences distribution of lichen. The objective of this study was to find lichen communities that grew on different bark acidity in a deciduous dipterocarp forest in the tropics. Forty-four plots of 10 x 10 cm<sup>2</sup> were placed on tree trunks at 130 cm above the ground, on 22 trees that had a diameter more than 10 cm, on the east and south facing aspects. Taxa, frequency and number of lichens were recorded, as well as bark pH and diameter. A total of 34 taxa and 24 genera of lichens were found. The important value index (IVI) indicated that the *Bulbothrix isidiza*, *Laurera benguelensis*, *Protoparmelia isidiata*, and *Dirinaria applanata* were the dominant lichens, with values of 42.27%, 39.32%, 31.53% and 23.36% respectively. Cluster analysis shows that the lichens could be separated into two main groups. The first group included as many as 26 species, which inhabited a wide range of bark pH, ranging from 2.3 to 4.9. This group included, for example, *Bulbothrix isidiza*, *Laurera benguelensis*, and *Protoparmelia isidiata*. The second group had only eight species, which grew on bark with pH 2.2-4.3. These lichens were *Graphis* sp.2, *Opegrapha* sp.1, and *Opegrapha* sp.2. The wide ranges of overlapping bark acidity that the two lichen groups inhabited suggest that other factors could have overriding influences other than bark pH. These could be, for example, taxa of phorophytes, aspect orientation and illumination under the canopies. This study could be applied for use in lichen resource management and conservation of lichens.

Keywords: Lichen, bark pH, KhaoYai National Park, deciduous dipterocarp forest

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