

**DIVERSITY OF LICHENS ALONG THE ELEVATION GRADIENT
AT KHAO YAI NATIONAL PARK, THAILAND**

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Environmental factors on mountain slopes influence the diversity and distribution of lichens. The aim of this study was to observe the influences of environment along a mountain slope, spanning between 100 and 1,200 m, on the diversity and distribution of lichens at Khao Yai National Park. The investigation was carried out by placing 50x10 cm quadrates on all trees with bole diameter at breast height (DBH) 4.5 cm at 130 cm above the ground in 4x4 m plots. The elevation, bark pH, the diversity and dominant of host plants, soil pH, soil moisture, organic and inorganic matters in the soil were measured at every 100 m in elevation. Observed were 141 lichen thalli from 75 species, of which crustose thalli were overwhelmingly dominant. Since most of these were sterile, the genera and species could not be ascertained. However, taxa were assigned by reference to the prominent characteristics of these lichens. The five highest important value index (IVI) were noted from *Thelotrema colobicum*, *Ocellularia* sp.2, Sterile soredia 6, Sterile non-propagule 4 and Sterile soredia 1, accounted 15.04, 12.13, 11.81, 10.80 and 10.25, respectively. Shannon's diversity index (SDI) demonstrated that the highest and subsequently lower distribution occurred at elevations 700, 1,000 and 1,200 m at the respective values of 3.05, 2.99 and 2.48. The ordination of axis 1 and axis 2 exhibited eigenvalues at 0.952 and 0.844 with a variation of 12.6 percent in the first axis. Lichen diversity was influenced by elevation, canopy cover, and the species richness of the host trees.

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