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SUCCESSION OF LICHENS ON SUBSTRATES IN TROPICAL FORESTS IN THAILAND

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It is well recognized lichens are pioneer species on both natural and artificial substrates. The objective of this study was to observe the establishment and growth of lichens on artificial substrates in various types of tropical forest. The study was conducted by installing four types of substrate shading net, transparent sheets, glass bottles and terra-cotta in four different types of tropical forest at Khao Yai National Park. Lichens established onto these substrates were subsequently photographed and identified during nine years of observation. After three years, eight taxa of the pioneer lichens were recognized. The thalli and reproductive structures of these lichens were virtually invisible. After five years, sixteen taxa were recognized, of which few of them had apparent reproductive structures. After nine years, many of the lichens produced fruiting bodies allowing for the identification of the genera and the species. Forty-two taxa from twenty genera were identified, including the foliicolous taxa of *Porina* spp., *Mazosia* spp., *Byssoloma* spp. and *Coenogonium* spp. The only abundant foliose thalli were *Bulbothrix isidiza*. The number of taxa was highest and sequentially lower on shading net, glass bottles, transparent sheets and terra-cotta at 20, 16, 13 and 7 respectively. The lower montane forest supported the highest number of taxa, and subsequently lower numbers were observed under tropical rain forest, mixed-deciduous forest and secondary forest at 24, 11, 11 and 8 taxa, respectively. This investigation is on-going in order to elucidate long-term influence of environmental factors on the succession of lichen in the tropical ecosystems.