G_G0043: MICROCLIMATE OF LICHEN HABITATS IN THE LOWER MONTANE RAIN FOREST AND THE SECONDARY FOREST IN THE TROPIC AT KHAO YAI NATIONAL PARK

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Abstract: Species composition of lichens in different communities depends largely on microclimate. The aim of this study was to investigate microclimate of lichen habitats under the cool environment of the Lower Montane Forest (LMF) versus the warm microhabitat of the Secondary Forest (SF). Light Intensity (Li), Temperature (Tc) and Relative Humidity (RH) were recorded at tree base and canopy in LMF and SF at Khao Yai National Park, Thailand, from June 2008 to January 2012. The results revealed that temperature and light intensity of LMF were lower than those from SF. The temperature recorded from LMF at tree base and canopy varied from 19.7 to 20.1 ^{o}C, whereas those from SF were not different and averaged 22.4 ^{o}C at both levels. Light intensity at tree base and canopy levels from LMF were 7-82 μmol $m^{-2}s^{-1}$ and SF were 153-132 μmol $m^{-2}s^{-1}$. Contrary, mean relative humidity of the two levels from LMF were 85.8-82.1%, whilst SF were 81.9-81.8%. The influences of microclimate were observed on species distribution of lichens. The lichens *Parmelinella wallichiana* and *Hypotrachyna kingii* only inhabited the canopy of LMF; while *Dictyonema sericeum* was limited at tree base. Contrary, Li, Tc and RH at SF were not different between the two levels, accordingly *Parmotrema tinctorum* and *Dirinalia picta* were common thorough out the trunk. (abstract only)

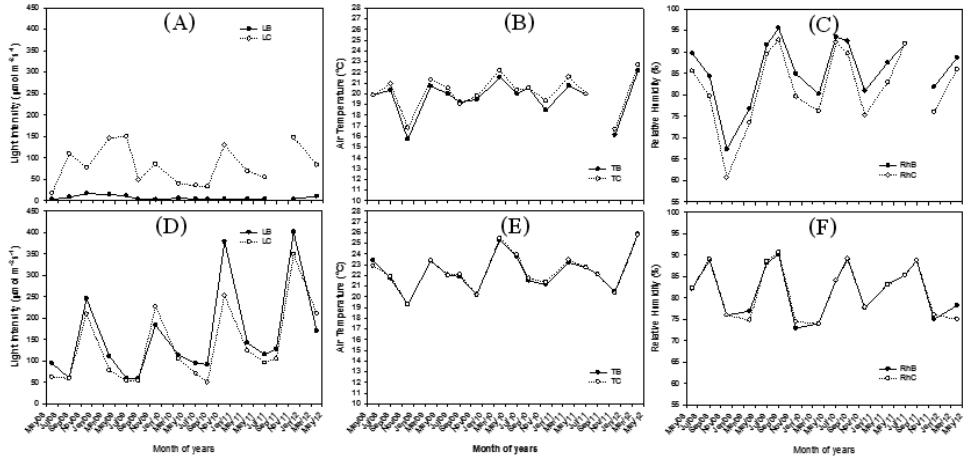

Figure 1. Microclimate recorded at LMF and SF including light intensity (A and D), temperature (B and E), relative humidity (C and F) from June 2008 to January 2012

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G_G0044: WATER QUALITY AND DIVERSITY OF PHYTOPLANKTON IN SANDBAG CHECK DAMS AT LAMTRON CREEK, AMPHORE THAMODE, PHATTHALUNG PROVINCE

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Abstract: Water quality and diversity of phytoplankton were studied in sandbag check dams of Lamtron Creek, Amphore Thamode, Phatthalung province in Southern Thailand. Twenty liters of water from four stations were individually collected in dry season (March 2012 to April 2012) and rainy season (October 2012 to November 2012). Physico-chemical parameter: velocity, water transparency, water temperature, pH, dissolved oxygen (DO), nitrate nitrogen (NO_3-N), and ammonia nitrogen (NH_3-N) were determined. Phytoplankton