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SP11_007_OA: ANNUAL LITTERFALL BIOMASS OF EPIPHYTIC MACROLICHENS IN PRIMARY AND SECONDARY FORESTS AT KHAO YAI NATIONAL PARK

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Abstract:

Biomass and lichen diversity vary depending on the type and structure of the forest, which may refer to tree species, size, and density. These were resulted to the difference amount of litterfall biomass of lichens. Thus, the objective of this study was to estimate macrolichen litterfalls in a primary forest (tropical rain forest; TRF) and successional forest (secondary forest; SF) at Khao Yai National Park. Macrolichen litterfalls were surveyed in twenty-five 2-meter radius circular plots within 3 locations at both TRF and SF. Tree density in those forest types were estimated using the Point Center Quarter Method. A total of 21 species of macrolichens were recorded in both TRF and SF. Lichen litterfall biomass was higher in SF than TRF, which were 0.34 ± 0.21 and 0.19 ± 0.23 $\text{kg ha}^{-1} \text{ year}^{-1}$ in average. Annual lichen litterfall biomass varies with seasons. SF has the highest biomass recorded in hot season, whereas the TRF was found in the early rainy season. A higher lichen litterfall biomass was discovered at the SF. This forest type contains smaller trees with high tree density compared to TRF. This result indicated that the forest types and forest structure are influence to the amount of macrolichen litterfall biomass that may depend on seasons.