

The 6th IAL Symposium and Annual ABLS Meeting

Asilomar, CA, USA, 13-19 July, 2008



BIOLOGY OF LICHENS AND BRYOPHYTES

PROGRAM

Organized by: The International Association for Lichenology, the American Bryological and Lichenological Society, the British Lichen Society, Arizona State University, the California Lichen Society, and the Northwest Lichenologists.

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classical approaches were integrated with physiological measurements of lichen transplants aimed at identifying early stress symptoms. (Poster: Environmental Monitoring, Friday in Merrill Hall)

207. *PAPONG, KHWANRUAN¹, THAMMATHAWORN, ACHRA², BOONPRAGOB, KANSRI³, and LÜCKING, ROBERT⁴

¹Department of Biology, Faculty of Science, Mahasarakham University, Maha Sarakham Province 44150, Thailand; ²Department of Biology, Faculty of Science, Khon Kaen University, Khon Kaen Province 40002, Thailand; ³Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkok 10240, Thailand; ⁴Department of Botany, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496, US.

Taxonomy and ecology of foliicolous lichens in Thailand

The foliicolous lichens in Thailand were studied in several National Parks in different areas of Thailand. We found 265 species, 44 genera and 18 families. The highest species diversity was found in the tropical rainforest (70% of all species), followed by the dry evergreen forest (53%), the lower montane rainforest (48%), and the mixed deciduous forest (6%). About 125 species are reported for the first time from Thailand and several of the foliicolous lichens discovered in this study are new records for Southeast Asia. The number of known foliicolous lichens species in Thailand is higher than any other country in this region. The different forest types and altitudinal zonation are usually governed by atmospheric and edaphic factors. This study shows the highest species diversity at low altitude (50-200 m), with a decrease in diversity at elevations up to 500 meters, a subsequent increase and then a strong decrease at higher altitudes (600-1,000 m) in the lower montane rainforest. The data for the analysis of foliicolous lichen species ecology were gathered in 66 transects. Cluster analysis separates these roughly into three groups: a chiefly tropical rainforest group that includes a few lower montane sites, a chiefly lower montane rainforest group that also includes some transects from the tropical rainforest, and a group chiefly formed by the dry evergreen forest and mixed deciduous forest sites. Non-metric multidimensional scaling (NMS) confirms the results of the cluster analysis regarding relationships of foliicolous species with altitude, forest types and microhabitat. This study underlines richness of Thailand regarding its lichen biota; however, many more areas designed to preserve biodiversity need to be studied. (*Symposium*: Tropical Lichens)

208. PARK, CHAE HAENG, 1,2, LEE, JIN SUNG, LEE, HONG KUM, JEONG, GAJIN, and *HONG, SOON GYU

*Polar BioCenter, Korea Polar Research Institute, KORDI, 7-50 Songdo-dong, Incheon, Korea; ²Department of Biological Sciences, College of Natural Sciences, Seoul National University, San 56-1 Shillim-dong, Kwanak-gu, Seoul, Korea

Fungal diversity in the withered pine trees of Monterey

In the Monterey Pine Forest, the trees are seriously threatened by diverse fungal species. To examine the fungal diversity in the withered Monterey pines, lichen specimens, cultured molds, and rDNA clones from pine twings were phylogenetically analyzed. Sixteen specimens of lichens had close relationships with the genera, *Alectoria, Amandinea, Lecanora, Niebla*, or *Ramalina*. Sixteen fungal strains isolated from pine twigs were closely related to the genera, *Cladosporium, Fusarium, Penicillium*, and *Trichoderma*. Fungal biodiversity of two pine twigs were also analyzed by clone library analysis. 21 and 23 different ARDRA types from each pine twig were phylogenetically analyzed. They were clustered in twelve phylogenetic groups of Ascomycetes. Among them, sequences with close relationship to *Fusarium circinatum*, which is known to cause pine pitch canker, were included. (Poster, Biogeography and Floristics, Monday in Merrill Hall)

209. *PARTL, ANAMARIJA1 and OZIMEC, SINIŠA2

¹State Institute for Nature Protection, Trg Mazuranica 5, HR-10000 Zagreb, Croatia; ²Ministry of Environmental Protection, Physical Planning and Construction; Republike Austrije 14, HR-10000 Zagreb, Croatia.

Lichen flora of Croatia

Over 50 years have passed since a checklist for lichens in Croatia was first published. During 2006 and 2007 revisions of the nomenclature and distribution of lichens in Croatia were made and new records noted since 1970s were added. After the revision, it was concluded that some 900 taxa were recorded for Croatia. This checklist was a basis for first red listing of lichens, and is a starting point for further lichen inventarisation in Croatia. (Poster: Biogeography and Floristics, Monday in Merrill Hall)

210. *PEKSA, ONDŘEJ^{1, 2} and ŠKALOUD, PAVEL²