SOME STUDIES ON THE DIVERSITY AND DISTRIBUTION OF LICHENS ON RITIGALA MOUNTAIN

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Studies on lichens at Ritigala Mountain revealed that a marked variation exists in the distribution and diversity of lichens with change in elevation. Light and moisture are two main environmental factors that changed the microclimate, which in turn determine the distribution of lichens at different elevations. Most of the lichens recorded on the barks of trees and rocks at lower elevation belonged to genera such as *Dirinaria, Graphis, Parmelia, Psyxine, Pyremula and Parmotrema and, Leptogium.* At mid elevation (i.e. between 400 - 500m contour line) diversity and distribution found to be much different from those at lower elevations. Crustoses such as species of *Myreotrema, Thelotrema, Porina, Phyllospora, Ocellularia* and several sterile ones were found on tree trunks and rocks. However, the lichen diversity of the crowns of trees at mid elevation seems to be somewhat similar to that at lower elevation although tree species are different. At mid elevation, tree trunks get only diffused light while the canopy gets more direct light. The difference in distribution and diversity observed on barks could mainly be due light condition prevailing at mid elevations.

At elevations above 600m, genera observed were very much different to those found at lower levations. Commonest genera recorded were *Heterodeeermia, Pseudocyphellaria, Sticta, Collema, Leptogium and Parmelia.* At higher elevations, it is cool but sunny during the day while nights are cooler and wet due to mist. Thus, differences observed with respect to lichen diversity could be due to the difference in microclimate that prevails at higher elevations.

Air quality studies indicated that air pollution due SO_2 is minimal in this area.This research reveals that Mount Ritigala supports extremely interesting and diverse lichen community which has not yet been explored fully yet. Similar to vascular plants, lichens show a marked zonation in the distribution of various species. This could be mainly due to differences in the microclimate at different attitudes. As lichens are sensitive to changes in the microclimate (specially with respect to air pollutants) it is important that the prevailing conditions are maintained. Any activities that lead to severe atmospheric pollution may cause significant changes in the existing lichen diversity.