

D-77 Antifungal and mosquito larvicidal activity of Sri Lankan lichens

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A lichen consists of an association between an alga and a fungus. Lichens form a large group containing about a quarter of all known species of fungi. Most lichens are *crustaceous* (cru), growing appressed to the substratum of rock or wood. Some are less attached to the substratum, and are described as *foliose* (fol) or *fruticose* (fru). Lichens produce a variety of biologically active compounds suggesting that they might function in the chemical defence against pathogens, pests and insects.

The present study describes the antifungal and mosquito larvicidal activity of 29 lichen species. The majority of lichens described here were collected from Montane regions of Sri Lanka except *Ramalina farinacea* which grows on the main trunk of coconut trees in the Kurunegala district. Of the lichens tested 12 species were crustaceous, 12 foliose while 5 were fruticose.

Air dried lichens samples were sequentially extracted into cold CH₂Cl₂ and cold MeOH. Each of the extracts were subjected to the following bioassays: (a) antifungal activity against *Cladosporium cladosporioides* using the TLC bioassay technique (b) mosquito larvicidal assay against the dengue vector *Aedes aegypti*.

Pertusaria sp. (cru), *Dirinaria applanata* (cru), 3 lichens of *Parmotrema* sp. (fol), *Parmelina* sp. (fol), *Usnea barbata* (fru) *Ramalina farinacea* (fru), *Cladonia* sp. (fru), showed significant antifungal and mosquito larvicidal activity.

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