EPIPHYTES ON RUBBER TREES IN THE DOOARS AREA OF WEST BENGAL

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A survey on the occurrence of epiphytes on rubber trees of different age groups was made at Regional Experiment Station, RRII, Rubber Board, Nagrakata, Jalpaiguri in the northern part of West Bengal as they could be indicators of atmospheric pollution and agroclimatic changes. The epiphytic growth was more frequent on older trees and it increased with age of trees. This could be because the old bark (with rough surface) provide good hold for the development and growth of epiphytes.

Key words: Age of plants, Biodiversity, Climate, Epiphytes, Growth index, Rubber tree.

Epiphytes such as orchids, ferns, moss and lichens depend on other plants for structural support and anchorage. They are important components of a natural ecosystem and play significant roles that include better interception and retention of rainwater (Hoelscher *et al.*, 2004) and nitrogen fixation (Bermudes and Benzing, 1991). They act as a source of food for birds and other animals (Hietz, 1998). Epiphytes are powerful biological indicators of environmental health. They are very sensitive to climatic changes (Hietz, 1998; Nadkarni and Solano, 2000; Gignac, 2001) and atmospheric pollution (Hauck, 2003). Monitoring the epiphyte population in a region will help in a general assessment on the environmental health of that region. The abundance of epiphytes on rubber trees compared to two popular forest trees teak (*Tectona grandis*) and jarul (*Lagestroemia flosreginae*) has been reported (Jacob *et al.*, 2002).

In the forest tree species that grow in the foot hills of Himalayas luxuriant growth of epiphytes on the older trees is a common feature. The present study examined the growth of naturally occurring epiphytes on mature rubber trees of different ages (Fig.1). The epiphytes were scored in the Regional Experiment Station of Rubber Research Institute of India at Nagrakata in northern West Bengal. The average rainfall in this location is 3966 mm and the mean maximum and minimum temperatures are 29.6 and

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