ANALYSIS OF LITTERFALL IN A MONTANE RAIN FOREST OF SRI LANKA

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Litterfall at four sites in Montane Rain Forest in Hakgala Strict Natural Reserve (elevation 2000m) was studied as a part of an investigation of mineral cycling during two years; March 1985 to, March 1987. At each site litterfall was measured monthly in 5 (0.5 x 0.5m) litter traps and analysed separately as woody and non-woody materials. Litterfall in the year 1986 was analysed as leaves, twigs, wood, bark, fecal matter and other materials. Then leaf litter of various species were separated as far as possible to make comparison with floristic vompodition. Ten 5 x 5m plots on the forest floor were cleared completely to study woodfall once in two months in addition to the litter trap method. Quantities of C, N, P in the litter fall were analysed chemically.

The mean total litterfall for the four site was 8.55 t ha^{-1} yr^{-1} (non-woody 6.7 t ha^{-1} yr^{-1}, Woody 1.8 $ha^{-1}yr^{-1}$) and no significant differences (P 0.1) were found between sites. Litterfall had no correlation with rainfall. Highest litterfall was recorded in July and lowest in January. Large propotion (77.8%) of the total litterfall was leaf litter and only 18.6% was wood. Largest propotion (14.3%) of leaf litter was contributed by *Michelia nilagirica.* Woodfall measured by 5 x 5m plots was 1.7 t $ha^{-1}yr^{-1}$ and no significant difference (P 0.1) among sites were found. C,N,P contents of falling litter were 40277.8 kg $ha^{-1}yr^{-1}$, 120.9 kg $ha^{-1}yr^{-1}$, 5.46 kg $ha^{-1}yr^{-1}$ respectively.

Litterfall values and quantities of C,N,P returned in the litterfall falls within the published range of values recorded for Montane rain forests in other parts of the world.

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