

DIVERSITY OF UNDERSTOREY VEGETATION IN
SINHARAJA RAIN FOREST

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The woody and non-woody vegetation below 30cm girth at breast height (gbh) in Sinharaja Man and Biosphere Reserve studied by suitable plot sampling, represents 156 endemic and 103 non endemic species respectively. 45% of the species attain sizes of 30cm gbh or more at maturity and comprise the overstorey tree species. The remainder, with the exception of a few, are exclusive to vegetation below 30cm gbh and are the typical understorey species.

Based upon topography, proximity and field experience plots sampled were subjectively recognised into 8 groups. The special distribution of understorey species in these sites showed that 49% of the species were restricted to any 1 or 2 sites and only 15% were common to any 7 or all 8 sites. Similarly, the population densities examined reveal that 15% of the species have 1 individual per 1000sq.m; a further 23% of them have 2 to 3 individuals within an equivalent area; only 12% of the species are represented by 100 individuals or more per 1000sq.m.

These results suggest that the rain forest understorey has a unique community and a valuable gene pool. However, localised distribution and low population densities of its species make it a habitat extremely vulnerable to disturbance.

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