SEEDLING SURVIVAL AND GROWTH OF NINE LATE-SUCCESSESIONAL SPECIES ACROSS A TOPOGRAPHIC GRADIENT IN SINHARAJA RAIN FOREST

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Growth performance of seedlings belong to nine late-successesional canopy tree species was studied at three different topographic positions (ridgetop, midslope and valley) in the Sinharaja rain forest, southwest Sri Lanka. Seedlings were planted in plots located in valleys, midslops and ridgetops. In each site four canopy openings and four adjacent understoreys were selected to plant seedlings of nine late-successional canopy tree species. Seedling growth and mortality were monitored for three years.

Results demonstrated that a clear difference in survival and growth among species. These differences appeared to be related to the availability of soil moisture and groundstorey radiation regimes of the forest. *Shorea disticha* exhibits high growth rate than others in each topographic position in each site. Seedlings of *Mesua ferrea* and *Shorea megistophylla* exhibit a higher survival than other species in canopy openings and understorey conditions of all topographic positions. Growth performance and survival of their species will be monitored for several years to study the nich specialization of the late-successional canopy tree seedlings

