

**D-28 : ECTOMYCORRHIZAL INFECTION OF *Shorea* species
(*Dipterocarpaceae*) UNDER DIFFERENT LIGHT REGIMES IN
SINHARAJA RAIN FOREST**

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Ectomycorrhizal infection was examined in two-year old seedlings of five different *Shorea* species - *S. affinis*, *S. congestiflora*, *S. cordifolia*, *S. gardneri* and *S. zeylanica* of the Family Dipterocarpaceae. Seedlings were grown under five different light regimes simulating : (i) complete sunlight exposure ($2000 \text{ mol m}^{-2}\text{s}^{-1}$); (ii) forest gap edges

($350 \text{ mol m}^{-2}\text{s}^{-1}$); (iii) two forest gap conditions exposed to 2 h direct sunlight (small gap) and 6 h direct sunlight (large gap) and (iv) forest understorey ($50 \text{ mol m}^{-2}\text{s}^{-1}$) conditions.

The results revealed that the percentage mycorrhizal infection significantly ($P=0.05$) increased from understorey light condition to full sunlight exposure condition in the following manner.

| | Small gap | Large gap | |
|-------------------------|-----------|-----------|---------------|
| Understorey | | | Full sunlight |
| Forest gap = 2 h direct | | | exposure |
| edge | sunlight | sunlight | |

It can be concluded that the complex environmental changes brought about by opening up of forest canopy favours increased mycorrhizal infection in these *Shorea* seedlings.