D-14 Vegetative and floral phenologies of selected mangrove genera in southern Sri Lanka

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Vegetative and floral phenologies of *Rhizophora mucronata*, *Rhizophora apiculata, Bruguiera gymnorhiza, Bruguiera sexangular* and *Ceriops tagal* were studied with quantitative monthly observations over 30 months in 3 lagoons at 3 climatic zones in Southern Sri Lankan.

Phenological cycles were followed by monthly observations on tagged leaf and flower buds. Phenological indices of leaf reflushing, flowering and fruiting were calculated for each species in the 3 lagoons separately, on a monthly basis and were compared with rainfall, temperature and humidity of the respective month. In all species described, floral and vegetative cycles were seasonal with all component events peaking in activity each year.

Leaf production showed 2 distinct maxima per year in all study species. Rainfall seemed to exert a great influence on leaf reflushing in all trees growing in wet and intermediate zones. In all investigated species except in *B.gymnorhiza* there was a depression in leaf reflushing when the production of flowers attained a maximum. Average period of life of a leaf is 1-1½ years in *Rhizophora* spp., 1 - 2½ years in *Bruguiera* spp and 1½ - 2 years in *Ceriops tragal*. A bimodal pattern of flowering and fruiting per year was observed in wet and intermediate zone trees. In dry zone trees these were unimodel. Development of a mature propagule from a flower bud took 2 - 3 years in *R.apiculata*, 1½ - 2 years in *R.mucronata* 1 year in *Bruguiera* spp and 1 - 1½ years in *Ceriops tragal*. Amount of light received / day did not show any significant effect on phenological cycles studied.