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Phenological Patterns of Selected Tree Species in Dry Deciduous Forests of Sri Lankamalleswara Wildlife Sanctuary in Southern Eastern Ghats, Andhra Pradesh, India

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Abstract: The study observed the leafing, flowering and fruiting phenological events of twenty seven tree species in the dry deciduous forest of Sri Lankamalleswara wildlife sanctuary. A total of ten individuals (>30cm gbh), for each of the selected twenty seven tree species, were observed at fifteen days interval during 2017-19 to record the leafing, flowering and fruiting phenological patterns. Leaf flushing initiated in March and reached peak in April and got completed before the onset of monsoon. Leaf expansion peak was recorded in June. Leaf fall started in December and reached peak in February before the intense dry period. Flowering peak was observed in April/May and majority of tree species revealed synchronous flowering with leaf flushing. Fruit bud initiation occurred in February and reached peak in June. Majority of tree species featured large fruit maturation period. The results indicate that leafing and flowering events occur during the dry period before the onset of first rains and fruit maturation period is large and fruit fall timing is in consequence to utilize the rains. Thus seasonal rains (soil moisture availability) and extent of deciduous period (photoperiod) influence the leafing and reproductive phenological events in this dry deciduous forest.

Keywords: Dry deciduous forest, Deciduous period, Southern Eastern ghats, Phenology, Leaf fall