

## VEGETATION INTER-RELATIONSHIP AND REGENERATION STATUS IN TROPICAL FOREST STANDS OF CENTRAL INDIA

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**Abstract:** The regeneration status of the vegetation reflects the health of forest ecosystem. In this context, the present study was done in order to assess the rarity or commonness of the species along with regeneration status and species inter-relationship in tropical forest ecosystem. The study site of present investigation includes Achanakmar-Amarkantak Biosphere Reserve. Four forests stand viz., dense, regenerating, medium and degraded forest having diverse vegetation attributes and representative of the region's vegetation were marked for the study. The permanent plot techniques were opted for enumeration through stratified random sampling method. The tropical forest studied reflects high rarity of the species in different sites under various stratified vegetation. Total 24 species distributed into 17 families were recorded in the study sites. The species commonness or high occurrence of the species is found to be negligible due dominance of species over the area. Regeneration status of different species showed drastic scenario in different forest stands. The good regeneration in different sites varied from 9.09-30.77% being lowest in degraded forest site and maximum in regenerated forest stand. The results revealed significant differences in species abundance, occurrence, regeneration status and inter-relationship in various forests stands. The screening of the species on the basis of abundance, regeneration status and positive or close inter-relationship between different species at site level can be utilized as effective tools for the scientific management, conservation and sustainable development of forest stands.

**Keywords:** Abundance, Inter-relationship, Rarity, Regeneration status, Vegetation stands

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