## PHYTOSOCIOLOGICAL ANALYSIS OF OVERSTOREY AND UNDERSTORY WOODY PERENNIALS ALONGWITH ASPECTS IN BALAMDI WATERSHED OF MIXED DRY TROPICAL FOREST IN CHHATTISGARH PLAIN

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ABSTRACT : The study was carried out to characterize the phytosociplogical analysis in Balamdi watershed of mixed dry tropical forest in Chhattisgarh plains during 2001-02. The study illustrated that aspect plays an important role in the structure and dominance in the phytodiversity. The overstorey tree strata in the different aspects were more prominent than understorey seedlings. In the study area, the number of tree species varied from 12 to 21 in the overstorey and 9 to 17 in the understorey. The number of trees in the overstorey ranged from 553 to 842 trees ha<sup>-1</sup> and in uderstorey from 203 to 415 seedlings ha<sup>-1</sup>. The tree species, viz., *Diospyros melanoxylon, Madhuca indica, Cleistanthus collinus* and *Pterocarpus marsupium* were pre-dominant, while *Zizyphus mauritiana* and *Cassia fistula* were identified as suppressed plant associations in the overstorey and understorey stratum in the different aspects. The western aspect has shown the luxuriant vegetation while the poor vegetation status was recorded in southern aspect. The Shannon index, Simpson's index, species richness, equitability and Beta diversity values were almost higher in western aspect in both over and understorey.

Key words: Aspect, Importance Value Index (IVI), mixed forest, overstorey, phytosociology, understorey.