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Research Article

Structural Composition of Menispermaceae Family in Central Western Ghats, India

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ABSTRACT

This study investigates the diversity, distribution, and conservation status of the Menispermaceae family in the Central Western Ghats of India, emphasizing their ecological roles as climbers and lianas in tropical forest ecosystems. Given their medicinal significance, several Menispermaceae species face conservation threats, with some classified as vulnerable in theWestern Ghats. The primary objective was to assess species richness, frequency, density, abundance, and Species Importance Value (SIV) of Menispermaceae, alongside evaluating Alpha and Beta diversity indices to examine spatial variation in species distribution. Stratified random sampling was done by belt transect method for vegetation sampling in twenty selected study sites of Central Western Ghats. As a result of sampling twenty study sites in Central Western Ghats, 9 genera and 10 species with total of 493 individuals of Menispermaceae were found. Among them *Cyclea peltata* exhibited the highest frequency, while *Diploclisia glaucescens* and *Cissampelos pareira* showed the highest density and abundance, respectively. *Coscinium fenestratum* recorded the highest SIV, signifying its ecological prominence. Among the surveyed areas, Uttara Kannada (Karnataka) displayed the highest species diversity, while Kodagu (Karnataka) recorded the highest Climber to Tree Diversity ratio. This study provides crucial insights into the distribution, ecological functions, and conservation needs of Menispermaceae, contributing to a deeper understanding of tropical forest dynamics in the Central Western Ghats.

Keywords: Menispermaceae, Dioecious species,Moonseed,Diversity, Whitfor value, PCA, Climber-Tree ratio.