

## PHYTODIVERSITY ANALYSIS AT JANEKAL VILLAGE MANVI TALUK RAICHUR DISTRICT KARNATAKA INDIA

*Theophilus Deenadayal<sup>1\*</sup> & Dr Tarun Jain<sup>2</sup>*

<sup>1\*</sup>Research Scholar, Department of Botany, Sunrise University, Alwar, Rajasthan, India

<sup>2</sup>Associate Professor, Department of Botany, Sunrise University, Alwar, Rajasthan, India

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### **ABSTRACT**

*The study evaluates the floristic diversity of Janekal Manvi using key ecological diversity indices, namely the Shannon-Weiner Diversity Index, Simpson's Diversity Index and Species Diversity Index, to assess species richness, distribution, and evenness across plant communities. Through systematic quadrat sampling and analysis, the study quantifies the relative abundance of species, highlighting variations in diversity among different species groups. The Shannon-Weiner Index indicated a high diversity level ( $H' = 4.59$ ), reflecting a balanced species distribution. Simpson's Index, with a value of 1.00, suggests evenness in species occurrence, while the Species Diversity Index score of 0.82 corroborates a stable, diverse ecosystem with minimal dominance by individual species. These findings provide a foundation for understanding the ecological dynamics of Janekal Manvi and underscore the importance of conserving floristic diversity for ecosystem resilience. Further discussion offers insights into potential management strategies to sustain biodiversity in similar habitats.*

**KEYWORDS:** *Floristic Diversity, Shannon-Weiner Diversity Index, Simpson's Diversity Index, Species Diversity Index, Species Richness, Janekal Manvi, Plant Communities, Ecosystem Resilience*