

**Activity of Department of Botany, Mahatma Gandhi Arts, Science and Late N. P. Commerce college, Armori District Gadchiroli Maharashtra with Pench Tiger Conservation foundation Maharashtra Forest Department, Government of Maharashtra.**

**Name of Activity: Study of Vegetation dynamics and Phyto-diversity of Pench.**

**Session: 2019-2020**

**Details of Activity:** Dr. Vasanta I. Kahalkar, Assistant Professor, Department of Botany season wise regularly visits degraded & unproductive 272 hector area of Pench for the study of vegetation dynamics and Phyto-diversity. Vegetation complex fluctuates from season to season in a cyclic way, and over the years in a successional manner; these fluctuations suggest a response by each species population to the prevailing light, moisture, and heat, as modified by the vegetation itself. The pattern of species distribution in a community is altered by the development, death, or decomposition of plant species. The vegetation survey was carried out using the Quadrat Method. Twenty-seven quadrats, each of 32x32 size, were laid on each site for the purpose of studying the trees, for 10x10 shrubs and 1x1 mt. for the herbaceous vegetation respectively. In each tree quadrat, the circumference at height 1.83 m above the ground and girth was measured and seedlings and saplings were included as herbs and shrubs, respectively for the study.

**Outcomes:** Then after, list of all trees, shrubs, and herb plants is prepared, which found in each of the 27 plots and the information is sent to the Maharashtra Forest Department's Pench Tiger Conservation Foundation.

A total 128 species were recorded from study area belonging to 102 genera and 40 families till now. The diverse genera Cassia were represented by 5 species; Sida, Tephrosia, Ziziphus, Ficus, Phyllanthus and Cyperus were represented by three species each. Corchorus, Grewia, Alysicarpus, Butea, Indigofera, Bauhinia, Lagerstroemia, Spermacoce, Lindernia and Setaria which were represented by two species each. The remaining genera were represented by a single species. Largest and diverse families include Poaceae, which is represented by 19 species of 18 genera. Second largest diverse family Fabaceae represented by 16 species belongs to 11 genera.



**Data Collection by Dr. Kahalkar in Collaboration with Staff of Forest Department**

*Kahalkar*



*Principal*  
Mahatma Gandhi Arts,  
Science & Late  
N. P. Commerce College,  
Armori, Dist - Gadchiroli





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*V. Kahalkar*  
 (Dr. V. I. Kahalkar)



*[Signature]*  
 Principal  
 Mahatma Gandhi Arts,  
 Science & Late  
 N P Commerce College,  
 Armori, Dist - Gadchiroli