

© Society for Promotion of Tropical Biodiversity, Jabalpur

DISPERSION PATTERN OF LEGUMES AND NON-LEGUMES IN THE TROPICAL DECIDUOUS FORESTS AROUND JHARIA COALFIELD, EASTERN INDIA

SHRUTI MISHRA AND ANSHUMALI¹

*Laboratory of Biogeochemistry, Department of Environmental Science and Engineering,
Indian School of Mines, Dhanbad-826004, Jharkhand, India.*

¹Corresponding author: malijnu@gmail.com

ABSTRACT: Changes in the “legume and nonlegume” dispersion pattern were studied in three sites of the tropical deciduous forests around Jharia Coalfield (JCF) in the eastern part of India. Three 1 hectare (ha) plots were established one in each site, located 6 to 20 km apart. Each plot was divided into 100 quadrats each of 10 m X 10 m in size. For each 10 m x 10 m quadrat, the number of species and density of adult trees (> 30 cm circumference at breast height: 1.37 m) were measured and identified. The Fabaceae and Moraceae were the most speciose leguminous and nonleguminous family, respectively. The uniform dispersion (80-90 %) was dominant followed by the clumped dispersion (10-20 %) in all three sites. About more than half of the plant species were characterized by uniform dispersion indicating dominant ecological reaction (i.e. dispersion behavior) in response to alterations in the habitat conditions. A majority of quadrats had 1-3 species and 1-4, 5-8 and 9-12 individuals indicating a patchy habitat with poor species richness and density at each site, a characteristic of the highly disturbed tropical deciduous forest.

Key words: *Adult tree, Community, Fabaceae, Uniform dispersion*

Citation: Mishra S, Anshumali (2014) Dispersion pattern of legumes and non-legumes in the tropical deciduous forests around jharia coalfield, eastern india. *Indian J Trop Biodiv* 22(1): 51-56