



Species Composition, Diversity and Distribution along an Elevational Gradient in Oak-dominated Forests of Pir Panjal Range in Jammu and Kashmir

Mohd Junaid Jazib

Department of Environmental Sciences, Govt. P. G. College Rajouri-185 131 India
Email: junaidjazib@gmail.com

Abstract: The present study was conducted to evaluate the impact of altitude on composition and diversity of Oak-dominated forests in Rajouri district of Jammu and Kashmir (India). A total of 32 woody species were encountered in the study area lying between 1200m and 2500m elevation. Three species of Oak viz. *Quercus leuchotrichophora*, *Q. floribunda* and *Q. semecarpifolia* dominant or co-dominant in the area. *Q. leuchotrichophora* shared the maximum acreage at all elevations. The associate species, however, remained changing across the elevational gradient. The phytosociological characteristics of the studied forests vary remarkably in response to changes in altitude. Stem density decreased while as total basal area was found to increase with altitude. Number of species was maximum at lowest altitude and steeply decreased with rise in altitude. Diversity indices (Margelef Index, Menhinik Index, Shanon Wiener Index, etc.) showed evident decline in their values with altitude. However an unexpected dip due to anthropogenic pressure at middle elevational range was also observed. These forests demand urgent attention for their conservation and management.

Keywords: Ecosystem, Forest, Biodiversity, Community composition, Environmental factors
