

Tree Species Diversity and Distribution Patterns in Tropical Forest of Eastern Ghats, India: a Case Study

C. Sudhakar Reddy*, Prachi Ugle

***Forestry & Ecology Division, National Remote Sensing Agency, Balanagar, Hyderabad
500037, India***

Abstract

The aim of the investigation was to analyze phytosociological characteristics and diversity patterns of tropical forest of Eastern Ghats – R.V. Nagar Range, Visakhapatnam district. The three forest types here include semi evergreen, moist deciduous and savannah. The Shannon index was recorded high for moist deciduous with 5.50 followed by semi evergreen with 5.27 and savannah with 3.71. Similarity index reveals that only 62.4% of floristic composition of semi evergreen forest is similar with moist deciduous, followed by 32% between moist deciduous and savannah and a very low similarity (5%) was observed between semi evergreen and savannah. Phytosociological characteristics reveals that *Pterocarpus marsupium*, *Schleichera oleosa*, *Mangifera indica*, *Syzygium cumini*, *Bauhinia vahlii*, *Mallotus philippensis* and *Grewia tilifolia* were the most frequent species when overall forest types were considered. Based on Raunkier's frequency distribution 81.4% species are falling under A frequency class (1% – 20%), 6.98% species fall in B and C class category (21% – 40% and 41% – 60% respectively) and 4.65% in D class (61% – 80%) in semi evergreen. Moist deciduous showed 82.1% in A class, 8.3% in B class, 7.1% in C class followed by 1.2% in D & E class. In the case of savannah 61% were in B, 28% in D and 11% in E class. The distribution pattern revealed that 107 species showed regular pattern, 12 as random and one species as contiguous pattern. The study provided diversity and distribution pattern of tree species in R.V. Nagar Range, Vishakapatnam district, Andhra Pradesh.

Keywords: tropical forest; semi evergreen; moist deciduous; savannah; Raunkier's frequency distribution

(Source:Life Science Journal. 5(4): 87 – 93] (ISSN: 1097 – 8135).

Sacred Groves in Southern Eastern Ghats, India: Are They Better Managed than Forest Reserves?

B. Ravi Prasad Rao^{1*}, M.V. Suresh Babu², M. Sridhar Reddy¹,
A. Madhusudhana Reddy³, V. Srinivasa Rao², S. Sunitha¹
& K.N. Ganeshiah⁴

Abstract:

We test the generally held belief that sacred forests are better managed than forest reserves. Towards this end, tree diversity, population structure and their relation to site disturbances were studied in five replicate stands each of sacred forests and reference reserve forests in southern Eastern Ghats of Andhra Pradesh. In each of the study sites, two belt transects of size 5 x 1000 m were laid down randomly for assessing tree species. A total of 7836 trees belonging to 158 species were inventoried in all the stands. The stands in the sacred forests were more diverse, had higher basal area, and showed fewer signs of disturbance than the reference forest stands, supporting the view that local communities afford better protection and management to sacred groves. We suggest that the long-term sustenance of biodiversity in sacred forest sites require an integrated approach involving local communities as well the government sector.

(Source: *International Society for Tropical Ecology*, www.tropecol.com)

Floristic Diversity of Gani Reserve Forest of Kurnool District Andhra Pradesh, India With Emphasis on Medicinal Plants

1khaleel Basha And 2d. Niaz Parveen

Abstract:

The present paper aimed to study the floristic diversity of Gani Reserve forest of Kurnool district situated in the Eastern ghats of Andhra Pradesh, India. A total of 111 species (39 trees, **38** shrubs, **34** herbs) belonging to 47 families were recorded. Among families, Sterculiaceae (11 species), Malvaceae (8 species), Rubiaceae (6 species), Asteraceae (5 species) were most dominant families. **111** medicinal plants have been documented with their uses for the cure of more than 30 diseases and some of these are diabetes, jaundice, diarrhoea, dysentery, bronchitis, rheumatism, irregular menstruation, urinary problems and bone fracture, Cancer, Wounds. Bark of *Acacia leucophloea* used in the preparation of Arrack (distilled alcoholic drink). The roots of *Hemidesmus indicus* are used in the preparation of nanari a coolant during summer. The nature is true wealth of man and has many mysteries in its credit for every disease of man there is cure in this beautiful and wonderful nature.

Key words: Floristic diversity GaniRF Yerramalais forest Endemism Ethnobotanical

(Source: *Advances in Biological Research* 7 (4): 129-135)