



Vegetational study of Anuppur district with special emphasis to dominant family

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Abstract

The present paper deals the vegetational study of Anuppur district. It has rich floristic biodiversity of plants. It has hilly tracks covered with luxuriant vegetation along with the forest area is represented by mixed deciduous forest. Taxonomical investigation were undertaken to explore the floristic status of the ten dominant families.

Keywords: Anuppur district, Floristic study, Dominant families, digital database

1. Introduction

The study site lies between 23°6'0" N Latitude and 81°41'1" E Longitude. Anuppur district situated in the north eastern part of Madhya Pradesh. This District came into existence on 15th August 2003 by reorganising Shahdol District. Anuppur District has total area of 3701 sq.km., extends 80 km from east to west and 70 km from north to south. District Anuppur is surrounded by Koria District (C.G.) in east, Shahdol & Umaria district in west. Shahdol district in north and Dindori (M.P.) Bilaspur (C.G.) in the south.

The villagers are basically agriculturist and forest produce are main source of their livelihood. They use plant as a medicine for curing their ailments and diseases, which are easily available in their surroundings environment. Synthetic medicines are not often available in the villages and are sold sky high prices to unsuspecting villagers.

Vegetation is an assemblage of plant species and the ground cover (Burrows, 1990) ^[1]. It is a general term, without specific reference to particular taxa, life forms, structure, spatial extent, or any other specific botanical or geographic characteristics. It is broader than the term *flora* which refers to species composition. Perhaps the closest synonym is plant community, but *vegetation* can, and often does, refer to a wider range of spatial scales than that term does, including scales as large as the global. Primeval redwood forests, coastal mangrove stands, sphagnum bogs, desert soil crusts, roadside weed patches, wheat fields, cultivated gardens and lawns; all are encompassed by the term *vegetation*. The vegetation type is defined by characteristic dominant species, or a common aspect of the assemblage, such as an elevation range or environmental commonality.

II. Material and Methods

The plant exploration work was conducted in Anuppur region to document the floral diversity during the year 2018-2019. Intensive and extensive plant survey had been carried out covering almost all habitats in different season. The vegetation and distribution pattern of the plants were studied. Standard method had been followed for plant

collection and herbarium preparation (Jain and Rao 1977) ^[2]. Plant species were identified with the help of flora and Keys and other available literature (Hooker 1892-1897 ^[3]; Ray 1984 ^[4]; Mudgal *et al.*, 1977 ^[5]; Singh *et al.*, 2001 ^[6]; Haines 1921-1924 ^[7] and Saket & Saini, 2016 ^[8]). Some plant specimen were examined and identified from BSI Central circle, Allahabad. The entire plant specimen was deposited in Botany Department of Pt. S.N.S. Govt. P.G. College, Shahdol (M.P.).

III. Results and Discussion

The present outcome of the study undertaken during the years 2018 to 2019. It includes the floristic study of rich diversity of Anuppur. The main focused on ten families belonging to different taxa of Angiosperms have been given in this work.

The ten dominant families in order of their species content were made for the flora of Jabalpur (Oommachan and Shrivastava, 1996) ^[9] the result of which are given viz., Leguminosae (I), Gramineae (II), Asteraceae (III), Euphorbiaceae (IV), Acanthaceae (V), Scrophulariaceae (VI), Malvaceae (VII), Labiatae (VIII), Convolvulaceae (IX) and Verbenaceae (X) respectively.

Similarly ten dominant families in order of their species content were made for the flora of Bhopal (Oommachan, 1977) ^[10]. The result of which are given viz., Leguminosae (I), Asteraceae (II), Gramineae (III), Acanthaceae (IV), Euphorbiaceae (V), Scrophulariaceae (VI), Verbenaceae (VII), Labiatae (VIII), Malvaceae (IX) and Convolvulaceae (X) respectively.

Fig. 1 shows the dominant families with respect to genera and species level. While, the table 1 data revealed that the comparison of relative dominance of ten large families of Angiospermic in respect to the number of species are also given viz., Papilionaceae stands in first position as far as number of species and genera are also included Poaceae (II), Asteraceae (III), Malvaceae (IV), Apocynaceae (V), Euphorbiaceae (VI) Apocynaceae (VII), Verbenaceae (VII), Solanaceae (VIII), Mimosaceae (IX) and in tenth positions three families were found in tenure viz., Caesalpiniaceae (Xa), Lamiaceae (Xb) & Moraceae (Xc) respectively.

Table 1: Ten dominant families recorded during tenure (2018-2019) and their position with respect to genera and their species in Anuppur district.

S.No.	Family	Genera	Species	Position
1.	Papilionaceae	28	50	I
2.	Asteraceae	25	35	II
3.	Poaceae	21	28	III
4.	Malvaceae	9	18	IV
5.	Apocynaceae	13	14	V
6.	Euphorbiaceae	6	14	VI
7.	Verbenaceae	8	11	VII
8.	Solanaceae	5	11	VIII
9.	Minosaceae	8	10	IX
10.	A. Caesalpinaceae	6	10	X
	B. Lamiaceae	5	10	X
	C. Moraceae	4	10	X

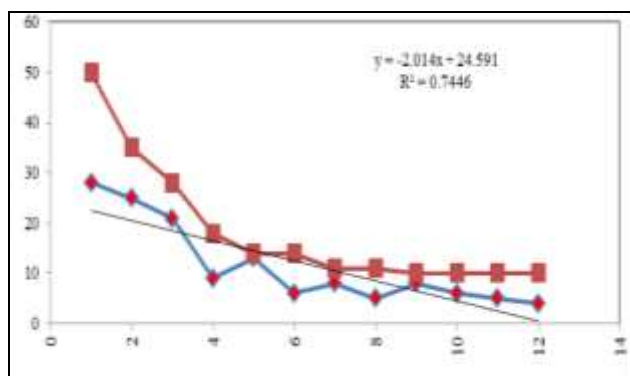


Fig 1: Graphichs analysis of dominant families recorded during tenure 2018-19 & their position with respect genera and their gerera and species in Anppur district

IV. Conclusion

In present study, a total 105 families have been recorded from Anuppur district (M.P.) during tenure. Out of these, 10 dominant families were compared to earlier flora such as flora of Jabalpur Oommachan and Shrivastava (1996) ^[9] Flora of Madhya Pradesh, Singh *et al.* (2001) ^[6] and flora of Shahdol (Gautam and Mishra, 2017) ^[11]. The study site indicates that is one of the biodiversity rich regions for medicinal and economically important of plants. The flora of Anuppur district with some advancement that is very useful for the future.

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References

- Burrows, Colin J. Processes of vegetation change. London: Unwin Hyman, 1990, 1
- Jain SK, Rao RR. A Handbook of Field and Herberium Method, Today and Tomorrows. (Oxford and IBH Publishing company, New Delhi), 1977.
- Hooker JD.. Flora of British India (*BSI Publication, Calcutta, India*), 1892-1897, 1-7.
- Ray GP. Grasses of Madhaya Pradesh (*BSI Publication, Allahabad, India*), 1984.
- Mudgal V, Khanna KK, Hajara PK. Flora of Madhaya Pradesh (*BSI Publication, Calcutta, India*), 1977.
- Singh NP, Khanna KK, Mudgal V, Dixit RD. Flora of

Madhaya Pradesh (*BSI Publication, Calcutta, India*), 2001.

- Haines HH. The Botany of Bihar and Orissa (*BSI Publication, Calcutta, India*), 1921-1924, 1-3.
- Saket. Suresh Prasad and Saini, Vimal K. A comprehensive Floristic Study of Jabalpur District with Special Emphasis to Dominant Family, *IJSR*. 2016; 5(11):90-91.
- Oommachan M, Srivastava JL. "Flora of Jabalpur", Sci. Pub. Jodhpur, 1996, 1- 354.
- Oommachan M. The flora of Bhopal (Angiosperms), J.K. Jain Brothers, Publ., Bhopal, 1977.
- Gautam S, Mishra SK. Floristic study of Shahdol district with special emphasis to dominant family, *Journal of Medicinal Plants Studies*. 2017; 5(1):83-84