



SURVEY ON TREE DIVERSITY OF JM PATEL COLLEGE CAMPUS, BHANDARA,(M.S).

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ABSTRACT:

The present study deals with the status, distribution, identification, diversity, and curative values of medicinal Trees in J.M.Patel College campus, Bhandara. The college is one of the leading and premier institutes with 'A' grade accreditation and status of College with Potential for Excellence by UGC. It is also recognized as centre for 'Higher Learning & Research' by RTM Nagpur University. The bio-rich campus sprawling over 21,481 sq. m. with a latitude 21.1614397N and longitude 79.65108 E and consists of some old trees along with shrubs, herbs, palms, climbers and few exotic flora. In view of recent demand on medicinal plants, the entire lush-green campus was surveyed to collect the tree diversity data. Interestingly more than 200 trees were recorded, among these, 54 tree species were identified by using relevant scientific literature and subsequently the data was evaluated in the present paper.

Keywords: Diversity, Flora, palm, shrub, Tree.

INTRODUCTION:

Biodiversity provides a variety of environmental services from its species that are essential at the global, regional and local level. Unfortunately man is only the contributor to the rapid global destruction of biodiversity. Maintaining of carbon dioxide and oxygen percentage, water cycle and controlling air, water and soil pollution are some unique services of plants. Therefore, preservation of biological resources is essential for the well being and the long term survival of mankind. Therefore, there is a lot of demand for database of plants all over the world especially from biodiversity rich countries as there are a number of economically and medicinally important plants available, which are untapped till now.

The eco friendly, bio-rich campus of JMPC is covered with rich flora of trees with a thick, green upper canopy. The biotic survey of the campus was carried out in different localities of the campus. There are many socio-economical valuable trees grown in the campus. Most of the trees are naturally grown and some of the trees, shrubs and palms are planted obviously to control pollution and for the beautification of the campus.

In view of this, J.M.Patel College Campus has been selected as an experimental area for studying the tree diversity.

METHOD AND MATERIAL:

The tree flora in the campus is critically surveyed in different localities of the campus. Identification of flora was done with the help of literature available in College library.

RESULTS AND DISCUSSION

The entire bio rich campus was surveyed to collect information of tree flora. Interestingly more than 54 tree species of total trees approximately 200 were identified using relevant scientific literature and subsequently the medicinal values of each tree was also reviewed.

College management is regularly taking traditional care (sprinkler and drip irrigation) for the conservation of these trees. On the other hand, advanced equipment are using for trimming of trees which gives extra beautification and healthy atmosphere to the campus.

Campus flora consists of 95 trees, 20 shrubs, 90 palms, belongs to 21 families of angiosperms. Complete information of every tree was given in the form of Q R code. Most of the trees are old and tall

with thick, green canopy which is suitable for the growth of the lower group plants like lichens, bryophytes and different types of mushrooms on the bark of the trees in late rainy season and also provides shelter to birds and insects.

The collected data was enumerated in alphabetical sequence, with scientific, local name and medicinal values. The works of Ugemuge (1986), Auti et.al (2004), Bondya& Sharma (2005), Shrivastava and Jain (2006), Phukan (2006), Rao et.al (2017) were referred for taxonomic identification.

CONCLUSION:

Generally every educational institute right from primary school to university maintained and preserves biodata of staff and students of all the years. Likewise we should preserve the list of flora and fauna found in institute campus and upload in the institute website. It has become obvious that the conservation of biological resource is essential for the well being and the long term survival of mankind.

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Table 1: List of Trees/Shrubs in JMPC campus

S.No	Botanical Name	Common Name	Medicinal Value	Number of trees
1.	<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	Australian babul	Malaria and allergy.	01
2.	<i>Acacia catechu</i> (L.f) Willd.	Khair	Astringent, diarrhea and Leprosy.	01
3	<i>Achras sapota</i> L.	Chikoo	Anti-inflammatory, helps in digestion.	01
4	<i>Aeglemarmolos</i> (L.) A.Lyons.	Bel	Dispepsia, dysentery and diabetes.	02
5	<i>Albizialebeck</i> (L.) Willd.	Shirish	Seed oil for curing Leprosy.	01
6	<i>Annona reticulate</i> L.	Ramphal	diarrhea and dysentery.	01
7	<i>Annona squamosa</i> L.	Sitaphal	Dipression disorders and Anaemia.	01
8	<i>Areca vestiaria</i> Giseke.	Crown palm	Male contraceptive.	21
9.	<i>Azadirachtaindica</i> A.Juss.	Kadu Neem	Skin diseases, eczema and Malarial fever.	05
10.	<i>Bombaxeiba</i> L.	Red silk cotton tree	Chronic inflammation, Dysentery & haemoptysis.	01
11.	<i>Callistemnon lanceolatus</i> (Curtis)Dum.Cours.	Bottle-brush	Skin diseases, tuberculous glands& burning sensation.	01
12.	<i>Cassia fistula</i> L.	Bahava	Diarrhoea,dysentery and anticough.	01
13.	<i>Cassia siamea</i> (Lam.)Irwin et Barneby.	Semal	Headache, diabetes and bleeding.	02
14.	<i>Ceiba pentandra</i> (L.) Gaertn.	Kapok tree	Asthma, bleeding and fever.	01
15.	<i>Chommi feramukul</i> Jacq.	Guggul	Controls cholesterol	01
16.	<i>Cocos nucifera</i> L.	Nariyal	Rheumatism, backpains and stomach-ache.	04
17.	<i>Coffea Arabica</i> L.	Coffee	Fever, asthma, whooping and cough.	01
18.	<i>Cordia dichotoma</i> L.	Bhokar	Lung disease, cough and urethra.	02
19.	<i>Dalbergia latifolia</i> Roxb.	Pahari Sheesham	Diarrhea, dysentery, and diuretic.	01
20	<i>Dalbergia sissoo</i> Roxb.	Sheesham	diarrhea, indigestion, and leprosy.	02
21.	<i>Delonix regia</i> (Boj. Ex Hook) Raf.	Gulmohar	Anti-diabetic, anti-inflammatory,	04
22.	<i>Emblica officinalis</i> L.	Awla	Inflammatory,antiulcer,and anticancer.	01
23.	<i>Eucalyptus globules</i> Labill.	Nilgiri	Asthma, cough and plague.	01
24.	<i>Ficus bengalensis</i> L.	Vad	Diarrhoea,dysentery and Diabetes.	01

25.	<i>Ficus benjamina</i> var. <i>comosa</i> (Roxb.) Kurz	Weeping fig	Liver diseases, rheumatic headaches and wounds.	10
26.	<i>Ficus carica</i> L.	Anjeer	Gastrointestinal and respiratory problems.	03
27.	<i>Ficus glomerata</i>	Gular	Diabetes, asthma and ulcer.	01
28.	<i>Ficus religiosa</i> (L.) Gasp.	Peepal	Wounds, skin diseases and Asthema.	01
29.	<i>Gliricidia sepium</i> (Jacq.) Kunth ex Walp.	Giripushpa	Digestive problems.	01
30.	<i>Gmelina arborea</i> Roxb.	Shivan	Abdominal pains, leprosy and Ulcer.	01
31.	<i>Kigelia pinnata</i> DC.	Jar Phanas	Acne, leprosy and syphilis.	01
32.	<i>Lagerstroemia speciosa</i> (L.)Pers.	Dhayti	Diabetes,weight loss and malarial fever.	01
33.	<i>Madhuca longifolia</i> (J.K)J.F. Mac.	Mahwa	Diabetes,rheumatism and dental-related problem.	01
34.	<i>Mangifera indica</i> L.	Aam	Asthama, wounds and ulcers.	04
35.	<i>Mimusops elengi</i> L.	Bakul	Diarhoea, dysentery and ulcer.	25
36.	<i>Morus alba</i> L.	Mulburry	Injury,cough and oedema.	01
37.	<i>Moringa oleifera</i> Lam.	Mungana	Paralysis, inflammation and Amenorrhoe.	01
38.	<i>Murraya paniculata</i> (L.)Jack.	Kamini	Anti-diarrhoeal, anti-inflammatory.	01
39.	<i>Murraya koenigii</i> (L.) Sprengel.	Meetaneem	Anti-diabetic,blood purifier and antifungal.	03
40.	<i>Nyctanthus arbortristis</i> L.	Parijatak	Sciatica, arthritis and chronic.	01
41.	<i>Parkiabi glandulosa</i> R.Br.	Chenduphal	Hypertension, anti-malarial and antibacterial.	01
42.	<i>Phoenix sylvestris</i> L.	Date-palm	Fever, vomiting and abdominal complaints	01
43.	<i>Pithacelobium dulce</i> Mart.	Jungliimli	Chronic, diarrhea and dysentery.	02
44.	<i>Plumeria rubra</i> L.	Champa	Purgative, cardiotoxic and diuretic.	01
45.	<i>Polyalthea longifolia</i> Sonn.	Ashoka	Antipyretic, diarrhea coughing.	03
46.	<i>Pongamiapinnata</i> (L.) Pierre	Karanja	Cleaning teeth, ulcer and skin diseases.	05
47.	<i>Roystonea regia</i> (Kunth)O.F.Cook	Royal plam	Diabetes & prostate hyperplasia.	70
48.	<i>Saracaindica</i> L.	Sitaasoka	Bleeding, cardiac disorder and abdominal tumour.	01
49.	<i>Streblus asper</i> Lour.	Kalyos	Filariasis, leprosy, cancer.	04
50.	<i>Syzygium cumini</i> (L.) Skeels	Jamun	Diabetes, diarrhea and	10

			asthma.	
51.	<i>Tamirindus indica</i> L.	Imli	Jaundice, scabies, ulcers.	05
52.	<i>Terminalia catappa</i> L.	Jungli Badam	Expectorant, liver disease and Anti HIV.	04
53.	<i>Tectona grandis</i> L.	Sagwan	Piles, leucoderma and dysentery.	04
54.	<i>Vitex negundo</i> L.	Samhalu	Antiseptic, sprains, cough.	01