



ISSN : 0973-7057

Ind. Database Index: 663 www.mjl.clarivate.com

Trees of Ranchi District, Jharkhand, India

Ashok Kumar Nag^a, Shweta Nag^b, Anjana Sagar Kaim^c & Vineeta Durga^d

^aPost Graduate Department of Botany, Ranchi College, Ranchi, Jharkhand, India

^bDepartment of Botany, Ranchi Women's College, Ranchi, Jharkhand, India

^cDepartment of Botany, SGTB Khalsa College, Delhi University, India

^dDepartment of Botany, Doranda College, Ranchi, Jharkhand, India

Received : 19th December, 2017 ; Revised : 9th February, 2018

Abstract :Plants are important to human beings as they are inseparable unit for humans and its survival. There has been a worldwide attention to save all the endangered plant species, including trees in various countries of Globe. Trees are those plants where stem is hard woody and gives an appearance of a trunk, it can attain huge heights. Trees play a major role in mankind's growth and development. Need of the hour is to conserve and protect the tree species, otherwise with the extinction of a certain plant/tree species the genome of that species gets lost forever. Keeping this in view a survey work was undertaken in Ranchi district of Jharkhand, India. The trees were studied after visiting the natural habitat where they flourish in the tribal rich area of Ranchi district, 49 tree species with their local name, Botanical name and families was found and are enlisted in the present paper.

Keywords :Tree, Genome, Urbanisation, Industrialization, Deforestation, Binomial nomenclature, Digital herbarium.

INTRODUCTION

Jharkhand is the 28th state of India which was carved out from Bihar on 15th November 2000. This state is rich in Flora and fauna. The tribal population which mainly constitute of Santhals, Oraon, Munda, Ho etc. is about 26% of the total population.¹ Ranchi district is one of the 24 districts on Jharkhand state. It was established as district in 1899 earlier it was Lohardaga district², according to the latest census report 2011 it has a population of 29, 14,253 showing a growth of 23%. Ranchi district has 18 block 1331 villages and 45 police stations. Ranchi district has many treasures in the form of Ethnomedicinal plants.³ Ranchi lies between 22° 30'N-23° 30'N latitude and 85° E-86° E longitude. The whole district is covered mainly by red sandy soil⁴. In Ranchi which is the capital of Jharkhand state Urbanization, Industrialization and other human

development activities have led to continuous depletion of plant wealth, felling of Trees, deforestation and other activities has resulted in the extinction of plant species and some have become endangered. Ranchi district occupies approximately 7574 square kilometer area. It is a vegetation rich area; lush green forest in the outskirts of Ranchi city is visible. Trees are not only useful in maintaining the equilibrium of atmosphere but are an integral part of Ecosystem in which humans live and survive. Food, Shelter, Air all are driven from plants and in this era of development and urbanization lots of tree species are being cut, the need of the hour is to conserve and protect them before they become extinct.

MATERIAL & METHOD

A detailed survey was started from 2010 onwards in major tribal dominated 18 blocks of Ranchi district⁷. These blocks were situated within a diameter of 80-90 kms. From the headquarter Ranchi city. Each block was visited twice

*Corresponding author :

Phone : 09835114732

E-mail : nagashok193@rediffmail.com

or thrice during vegetative and flowering season so that identification of the trees by their morphology can be done according to prescribed identification procedure, the local tribals have knowledge of identifying tree species in local language were interviewed and photographs were taken and specimen were collected for making herbarium. Tree

species were identified and nomenclature was done and herbarium was prepared according to Bentham and hooker system of classification⁸. Digital herbarium of tree species of Ranchi district of Jharkhand, India was also prepared.

RESULTS & DISCUSSIONS

Table 1.A Survey was made and the following Trees were identified in Ranchi district of Jharkhand

Sl.No.	Common Name	Botanical Name	Family
1	Mango	<i>Mangifera indica</i>	Anacardiaceae
2	Jackfruit	<i>Artocarpus heterophyllus</i>	Moraceae
3	Bael	<i>Aegle marmelos</i>	Rutaceae
4	Pipal	<i>Ficus religiosa</i>	Moraceae
5	Teak	<i>Tectonia grandis</i>	Lamiaceae
6	Guava	<i>Psidium guajava</i>	Myrtaceae
7	Shisham	<i>Dalbergia sisso</i>	Fabaceae
8	Sal	<i>Shorea robusta</i>	Dipterocarpaceae
9	litchi	<i>Litchi chinensis</i>	Sapindaceae
10	Eucalyptus	<i>Eucalptus globus</i>	Myrtaceae
11	Pine	<i>Pinus roxburghii</i>	Pinaceae
12	Cycas	<i>Cycas revoluta</i>	Cycadaceae
13	Palm	<i>Phoenix sylvestris</i>	Arecaceae
14	Charai gorwa	<i>Vitex peduncularis</i>	Lamiaceae
15	Semal	<i>Bombax melabaricum</i>	Malvaceae
16	Kalptaru	<i>Adansonia digitata</i>	Malvaceae
17	Silver Oak	<i>Grevillea robuta</i>	Proteaceae
18	Neem	<i>Azardiracta indica</i>	Meliaceae
19	Asan	<i>Terminalia tomentosa</i>	Combretaceae
20	Arjun	<i>Terminalia arjuna</i>	Combretaceae
21	Mohogony	<i>Swetania mahogany</i>	Meliaceae
22	Spathoda	<i>Spathoda campanulata</i>	Bignoniaceae
23	Jacranda	<i>Jacranda mimosaeifolia</i>	Bignoniaceae
24	Drum stick	<i>Moringa oleifera</i>	Moringaceae
25	Bargad	<i>Ficus benghalensis</i>	Moraceae
26	Iml	<i>Terminalia indica</i>	Fabaceae
27	Gular	<i>Ficus glomerata</i>	Moraceae
28	Putkal	<i>Ficus infecteria</i>	Moraceae
29	Gamhar	<i>Gmelina arboria</i>	Verbinaceae
30	Awla	<i>Ambelica officinalis</i>	Phyllanthceae
31	Kadam	<i>Anthocephalis cadamba</i>	Rubiaceae
32	Palash	<i>Butea monosperma</i>	Fabaceae
33	Mahua	<i>Madhuca indica</i>	Sapotaceae
34	Harshingar	<i>Nyctanthes arbortritis</i>	Oleaceae
35	Champa	<i>Michellia champaca</i>	Magnoliaceae
36	Amaltas	<i>Cassia fistula</i>	Fabaceae
37	Gulmohar	<i>Delonix regia</i>	Fabaceae
38	Ceiba	<i>Ceiba pentandra</i>	Malvaceae
39	Jamun	<i>Syzigium cumini</i>	Myrtaceae
40	Acacia	<i>Acacia auriculiformis</i>	Fabaceae
41	Siris	<i>Albizzia lebbeck</i>	Fabaceae
42	Bottle brush tree	<i>Callistemon viminalis</i>	Myrtaceae
43	Kaner	<i>Thevetia peruviana</i>	Apocynaceae
44	Thuja	<i>Thuja orientalis</i>	Cupressaceae
45	Barhal	<i>Artocarpus lakoocha</i>	Moraceae
46	Ashok	<i>Saraca indica</i>	Fabaceae
47	Sita Ashok	<i>Polyalthia longifolia</i>	Fabaceae
48	Karam	<i>Adina cordifolia</i>	Rubiaceae
49	Coconut	<i>Cocus nucifera</i>	Arecaceae

DISCUSSIONS

Trees are important in maintaining the ecological balance for the survival of human race. Water is essential for human race, trees are the major and the only source that forms clouds by absorbing the ground water and releasing more than 99% of the absorbed water in the form of vapour to atmosphere by means of Transpiration. Trees in the vicinity of an land area makes the environment suitable for living. In Ranchi district of Jharkhand, India more than 33% forest cover was seen, but as it carved out from Bihar in the year 2000 and separate statehood was given to Jharkhand, and Ranchi being its capital, due to unscientific development programme and planning many tree species were cut and less number of trees are left in comparison to early years. The survey work showed presence of 49 tree species, *Shorea robusta* L.(Sal) was found in abundance in natural conditions, *Adansonia digitata* (Kalptaru), *Vitex peduncularis* (Charai gorwa) were some rare species which were seen, apart from Angiospermic plants some Gymnosperms like *Pinus roxburghii*, *Cycas revoluta* were also present in Ranchi district of Jharkhand. This survey work will help in preparing the diversification module study of trees of Ranchi district of Jharkhand. Once documented by means of modern techniques we may increase their numbers by proper planning and designing.

ACKNOWLEDGEMENT

Corresponding author is thankful to UGC to grant a Minor research project to help in the investigation through Project no.FPSJ-010-09/-10ERO. Authors are thankful to Department of botany, SGTB Khalsa College, University

of Delhi for identification and nomenclature of tree species, to the Head of the Department, Post graduate Department of Botany, Ranchi College, Ranchi for providing necessary facilities to do the investigation. All the local, resource persons who shared the knowledge regarding tree species and helped in their identification and collection.

REFERENCES

1. **District Census 2011**".co.in.2011. Retrieved 2011-09-30
2. **Census of India, Jharkhand**, Series -21, Part XII – A, District Census Handbook Ranchi, Village and town directory district census 2011 page no.5.
3. **Hembrom, P.P. 1993**. Adivasi –Ausadhi (Horopathy), Volume I-VII. Paharia Sewa Samiti, Pakur, Jharkhand.
4. **Kumar N**, Bihar district Gazetteers, Ranchi, (Gazetter Branch Revenue department, Patna)
5. **WHO**: Annual Report .2008, Geneva: World health Organisation
6. **Miller, L. H. Ackerman, H.C., Su, X. Z. & Wellem, T. E. 2013**. Malaria Biology and disease pathogenesis: insights for new treatments. Nat.Med. 19,156-157
7. **District Ranchi, Government of Jharkhand** I City of falls <https://ranchi.nic.in> .
8. **Bentham and Hooker, 1862-1883**. *Genera Plantarum, Ad exemplaria imprimis in herbariis kewensibus servata definite*, 3 Vol
