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Ethnomedicinal Diversity of Pt.Ravishankar Shukla University Campus,Raipur, Chhattisgarh, India

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ABSTRACT

Chhattisgarh is known as rich herbal diversity state in India because variety of plants is being found here, Different parts of these plants like root, stem, and leaves. Flower, bud etc. are used to cure many diseases; Current research work is a useful account on medicinal plants in pt., R. S .U .campus Raipur, Chhattisgarh. Medicinal plant diversity survey was carried out in the period from 19 April 2017 to 16 May 2017 in pt. R .U .S .Campus, Raipur, Chhattisgarh. After the field survey observed medicinal plants were identified and their medicinal uses were searched form available literature. Total 184 medicinal plants species were identified which belong to 68 families. Out of 184 medicinal plants 56 were trees. 36 shrubs and 92 were herbaceous species. It was also noted that Pt. Ravishanker Shukla University Campus is rich in plants of Fabaceae family that is 23 plants and the Euphorbiaceous family is the second largest plant family of this campus, of which 14 plants were reported.

Keywords: Field survey, Medicinal plants Pt. R.U.S. Campus Raipur, Diversity.

I. INTRODUCTION

India is one of the 12 “mega- diversity” countries in the world: it has a forest area of 23.81% of the country’s geographical area. In India, the life and economy of the tribal people are intimately connected with the forest (Banik 2012).Raipur is capital of Chhattisgarh state where Pt. Ravishankkar Shukla University is present in western part of the city with the area of about 207 hectares. Climate of the area is tropical. Wet and dry type Medicinal plants are remarkable diverse group of plants and major components for rural people as traditional Medicine. Man has been utilizing plants as medicinal purpose since long ago. Significant importance towards health, economic value, sustainable utility. Their conservation, floral assessment and documentation are essential. India is a rich diversity center of medicinal and aromatic plants. Around 45000 plants spices nearly 15000 plants are used for their specific medicinal valve due to less side effect and rich potential, therefore herbal medicines. Distribution pattern of medicinal plants are different depending on their genetic makeup, related environment (soil, Temperature, water etc.) and geographical situation.

Seasonal variation of plant composition and their biomass was studied by Singh (1967) and forest vegetation study carried out by Sing and Singh (1987) in Himalaya. Tewari (1982) studied vegetation of Nainital University campus. Highly demand rate of medicinal plants their cultivation conservation and export are important segment towards medicinal plants fields.

Plants are used as medicine by tribal and rural people since past .Around 80% population over the world use medicine plants to cure different health related problem .(Kamboj 2000) Gradual disappearances of the plants are due to many development process as well as environmental impacts. Diversity of the species is the most striking feature of life, which plays role in complexity and intactness of natural ecosystems (Mohammad et al 2000) Biodiversity is represented by whole remarkable group of the species For sustain utilization and conservation of medicinal plants, the

documentation is needful aspect. Synthetic drugs leading increase diseases and disorders day by day.

India is one of the mega biodiversity centers over the 12 center in the world, including 47,000 plant species. Herbaceous medicinal plant showed their maximum presence in the study area. Medicinal plants utility trends have been increased due to their much efficacy, safe mode for utilization and less side effects. Various parts of the medicinal plant are used for different purpose are also a source of economic growth to local people (Savant et.al 1997) the present research is carried out in Pt. Ravi shanker Shukla University Campus, Raipur (Chhattisgarh) to explore the diversity of medicinal plants. Some ethno botanical studies were made by Ayyanar and Ignacimuthu (2005) and Balakrishnan et.al (2009).

II. REVIEW OF LITERATURE

In India an organized ethno botanical work was started by Junky Animal (1955) the work was taken up by the Botanical survey of India Later 1960 onwards work was started in other institution of the country. During last three decades Jain and his associates have contributed significantly to the field of Ethno botany. Anderson (1967) published a book '"plants, man and life". While Dukes (1968) published an Ethno botanical dictionary. Ford (1978) described the nature and statues of Ethno botany, later Jain (1981) wrote books on Glimpses of Ethno botany and Bibliography of ethno botany. Ethno biology and ethnography of wild plants in India was studied by Roy(1984).In resent time so many workers have contributed the knowledge to ethno botany .Some of the important investigation viz. pie Shenji (1991) narrated about the conservation of biological diversity in the temple yards and holy hills by the Dai ethnic minorities in china, Jain and Saklani (1992) worked on the cross cultural ethnobanical studies in North-East India ,Sikarwar (1993) narrated briefly about the plants in Ram charitmanas .Jha and Basak (1994) described an ethnibotanical aspects of Maithili Paintings ,Metra (1994,1998) made an investigation on sacred Asvattha and common Myrtle among Hindus, Greeks and Romans ,Sen Sarma (1994,1995,2000,2004) published an accounts on the plants form religious Hindu literature, Basu and Mukherjee (1996) wrote about the Bang A musical instrument used by the santals of Banduan (West Bengal), Ghate(1998) elucidated plants in patra pooja,Radhakrishnan et .al. (2000) published an account of the tribal artifacts of Kerala region, Bhatt et. Al (2001) studied on some sacred plants of Gujarat and their medicinal uses. Singh and Chauhan (2002,2004) elaborated about the plants and leaves used in worship of Govardhan puja and Annakut in BrijMandal ,Jha and Goel (2004,2006) published about the botanical rosaries and non- flower garlands in folklore life and vetiver worship (katarpuja) in Maithili region (North Bihar) An ancient practice of land conservation ,Kumar and Yadav (2004) studied the significance of sacred plants in Shradh ritual (Pindadan) in Gaya, Jain (2006) investigated the sacred plants while ,sane and Ghate (2006) published an account on sacred conservation practices at the species level through the tree worship ,Paddy and Dash (2008) did an ethno botanical analysis of the plants used in construction of Rama Upadhye et.al (2008) studied the botanical identity of plant material used in Hindu ceremonies form Western Maharashtra.

III. MATERIALS AND METHODS

The field study was carried out during 22/04/ 2017 to 07/05/2017 in the Pt. .Ravi Shankar Shukla University Campus, Raipur (C.G.).Methodology covers two type of survey as follows.

1. Field survey-study area, vegetation survey
2. Literature collection

STUDY AREA: The main aim of the survey was to collect information about the wild and medicinal plant species which are used by local people and the species are identified and documented by collecting samples of plant species. Survey were made for collection of plants their identification, followed by Botanical name, Family, Habitat, uses and propagation .The campus was visited for the collection of medicinal plants, The collected plants were identified by using standard floras (Hooker,1872,-1877,Cooke,1967,Singh and Karthikeyan 2000,Singh et.al. 2001,Yadav and Sandesai 2002)

IV. RESULTS AND DISCUSSION

VEGETATION SURVEY:

The plants are arranged in following pattern with their Botanical name, family, Habit, part uses and propagation(table 1).

Sr. No.	Botanical name	Family	Common name	habit	Parts used	propagation	Medicinal uses
1	Abutilon indium	Malvaceae	Kangori, Petaaee, Mudraa	Shrub	Whole plant	Seed/Stem cutting	Consumption, chest affection, Fever, Colic, Piles ,Leprosy,
2	Abelmoschus Moschatus Medk	Malvaceae	Bhendi Bij,kastur, Musk	Herb	Stem, Leave Root	Seed/Stem cutting	Hysteria .scabies Aphrodisiac' Antispasmodic
3	Abrus Precatorius L	Fabaceae	Gunja	Climber	Leave Root seed	Seed	Gonorrhea, Jaundice, Paralysis
4	Aegle marmelos Correa Ex. Roxb	Rutaceae	Beal	Tree	Leave Root Bark Stem flower	Seed	Bleeding piles, A
5	Accacia catechu	Fabaceae	Katha	Tree	Leaf	Seed, Root &Stem cuttings	Blood purifier, Burnt injuries Cough, Urinary disorder
6	Acasia arabica	Fabaceae	Babul	Tree	Stem, Bark	Seed	Asthma, Wounds Syphilitic ulcer
7	Acalyphaindica	Euphorbia ceae	Kuppi	Herb	Leaves, Root	Seed	Chest affection, Anti-inflammatory
8	Albizia lebbek Benth	Fabaceae	Tree	Leaf	Seed		Night blinds Eyes disease Asthma headache
9	Aegle Marmelos	Rutaceae	Beal	Tree	Leaves, Root, Bark, Stem, Flower	Seed	Alleviates Edema ,Pain, Bleeding piles, Hysteria
10	Alocasia indica	Araceae	Suran	Shrub	Leaves	Bulb	Gas problem, Bleeding disorder ,Dysuria
11	Aloe	Liliaceae	Ghikuma	Herb	Leaves	bud	Carminative, Skin disease, Purgative
12	Alstonia Scholaris	Apocynaceae	Dita bark	Tree	Leaves, pulp, Stem ,Bark	Seed/stem cutting	Ulcer ,Astringent, Malarial fever, Abdominal Disorder,
13	Alternanthea Sessilis	Amaranthaceae	ponnaganni	Herb	Whole plant	Seed	Hernia , Snakebite ,Fribrifuge

14	Amaranthus Polygonus	Amaranthaceae	chloaibhaji	Herb	Seed, Root, Leaves,	Seed	Eczema, Aphrodisiac, Leucorrhoea, Gonorrhea,
15	Anacyclus Pyrethrum	Asteraceae	Akarkra	Herb	Root, Stem	Seed	Brain tonic, Paralysis, Ophthalmic
16	Androhraphis paniculata	Acanthaceae	Chiraya	Herb	Whole plant	Seed	Stomachic, Debility, fever
17	Baliospermum montanum	Euphorbiaceae	Wild Caster,	Shrub	Root	Seed/Stem	Jaundice, piles, Anemia, Blood Purifier
18	Bauhinia Purpurea	Fabaceae	Butterfly tree	Tree	Root, Flower, Bark, Stem, Leaves	Seed	Cough, Anti-diarrheal, Glandular disease, Swelling, Leprosy
19	Bombax Cieba L.	Bombaceae	Semal	Tree	Leaf, Flower Seed, Bark, Gum	Seed/Stem	Healing wounds Skin eruption, Skin troubles
20	Borassus Flabellifer L .	Arecaceae	Brab tree	Tree	Root, Bud, Fruit	Seed	Anthelmintic, Gonorrhea, Gestritis,Diureti
21	Butea monosperma	Fabaceae	Palas, Dhak	Tree	Leaves, Gum, Seed, Flower,	Seed	Tumor ,Piles, Astringent, Aphrodisiac
22	Caesalpinia Bondue	Caesalpiniaceae	Sagargoti	Shrub	Root,/Bark Leaves, Seed	Seed/Stem	Febrifuge, Amenorrhea, Elephantiasis
23	Calophyllum Inophyllum	Clusiaceae	Sultan chapmpa	Tree	Leaves, Bark, Seed	Seed	Chicken pox, Scabies, Skin Rash ,Ulcer
24	Calotropis Gigantean	Asclepiadaceae	Arkra	Shrub	Leaves, Root, Bark, Flower	Seed	Purgative Properties, Asthma, Diaphoretic
25	Commiphora Whightii	Burseraceae	Gugal	Tree	Gum, Bark	Seed	Arthritis, Obesity
26	Cosmostigma racemosa	Asclepiadaceae	Konga	Tree	Leaves, Bark	Seed, Root	Ulcerous sores, Inflammation
27	Croton Tiglium	Euphorbiaceae	Croton	Tree	Whole plant	Stem cutting	Griping pain, Constipation, Rheumatism gout,Neuraldia,
28	Cymbopogon Citrates	Graminae	Lemon Grass	Herb	Leaves Grass oil	Stem cutting	Ringworm, Refrigerant, Antispasmodic, Stomachic tonic

29	Cynoden Dactylon	Graminae	Durva	Herb	Leaf	Seed	Menorrhagia, Bleeding piles, Vomiting, Chronis gleet,
30	Dalbergia Sisoo	Fabaceae	Shisham	Tree	Leaf, Stem	Seed	Gonorrhea, Hernia pain, Rheumatoid, Leprosy boil
31	Desmodium Gangeticum	Fabaceae	chuppa	Herb	Whole plant	Seed	Nerving tonic, Anuloman,Hert Disease ,Blood Disorder, Diabetes
32	Dioscorea	Dioscorea	Gantalu	Herb	Stem Leaves	Under ground	Infestation, Lymphadenitis ,Infertility,
33	Diplocyclos Palmatus	Cucurbitaceae	Sivalingi	Herb	Seed	Seed	Swelling Spleen, Esophagus disease, Snake bite,
34	Emblica Officinalis	Euphorbiaceous	Aawala	Tree	Fruit, bark	Seed	Hair tonic, Headache, Eye Disorder
35	Eucalyptus Globulus	Myrtaceae	Nilgiri	Tree	Root, Leaves	Seed	Purgative, Carminative, Expectorant ,Anti-malarial
36	Euphorbia Hirta	Euphorbiaceae	Asthma plant	Herb	Bark, Leaf, Root	Seed	Wound, Asthma
37	Euphorbia milli	Euphorbiaceae	Dismal	Shrub	Fruit Flower Leaf	Seed	Brest abscess Foot cracks, Dry skin, Mosquito repellent,
38	Euphorbia Nerifolia	Euphorbiaceae	sushi	Shrub	Latex, Juice	Seed	Impotency, Piles, Anemia, Leucoderma, Diabetes mellitus,
39	Euphorbia Parviflora	Euphorbiaceae	Dhudhi	Herb	Leaves	Seed	Diarrhea, Dysentery, Leucorrhoea
40	Ficus bebghalensis	Moraceae	Bargad	Tree	Stem,Root Bark, Milky latex	Seed/Stem	Cracked soles, Skin Ulcer, Lymphadenitis,
41	Ficus recemosa	Moraceae	Gular	Tree	Fruit, Root	Seed/Stem	Astringent, Vermin-fugue, Menorrhagia, Carminative, Diabetes
42	Ficus	Moraceae	pepal	Tree	Stem,	Seed/Stem	Reduce pain,

	Religiosa				Bark, Root,		Hemostatic, Astringent
43	Helicteres Isora	Sterculiaceae	Morорphali	Shurb	Fruit, Root, Bark	Seed	Laxative, Diarrhea, Digestive
44	Hemidesmus Indicus	Peripioceae	Anabtmul	Shrub	Root	Seed	Stringent, Analgesic, Anthelmintic
45	Hiptage benghalensis	Malpighiaceae	Kampthi	Shrub	Leaves, Bark, Flower	Stem	Chronic rheumatism, Scabies,
46	Jatropha Curcas	Euphorbiaceae	Safed arand	Tree	Leaf, seed	Stem cutting	Scabies Eczema, Ring worm, Depurative
47	Jatropha Podogrica	Euphorbiaceae	Gout plant	Shrub	Letex, Leaf, Root	Seed	Anticonceorus, Rheumatism, Hemorrhoids
48	Justicia Gendarussa	Acanthaceae	Bakas	Shrub	Root, Leaves, Shoot	Stem	Lung disease, Fever, paralysis,Anti Periodic
49	Lantana Camara	Verbenaceae	Vantulsi	Shrub	Fresh, Root, Leaves	Seed	Tetanus, Swelling, Carminative
50	Lawsonia Inermis	Lythraceae	Mehndi	Herb	Root, Leaves	Seed/Stem	Emmenogogu, Antifungal drug

According to this field work study on medicinal plant of Pt. Ravi Shankar Shukla University campus, Raipur it is concluded that 50 species under 68 families are present in the campus. Collected medicinal plants showed different habits that is herb, shrubs, herb/climber and trees. All the reported plants their Botanical name, common name, family, medicinal uses, shows that habitat, mode of propagation, have been summarized in Table no, 1. Wise distributed .Propagation methods of the identified plants have been shown in the figure no.1. This figure shows that the maximum plants propagate through seed and least plants propagate through Leaf Margin, Node cutting (vegetative propagation).underground corns/Aerial bulbils, Rhizome, Seed/Root Sucker, Seed/Stem cutting, Grafting, Budding .Present work gives a detailed account on the medicinal plant of the Pt .Ravis hanker Shukla University campus, which is showing high plant diversity in the campus. Pt. Rav is hanker Shukla University has also preserved the natural habitat of many endangered plant species.

V. SUMMERY AND CONCLUSION

Ethan botanical research is to way to understand the future of human relationship with this land and it is useful in the identification of new drug and food resources. Wild plant represents inexpensive, locally available and versatile good sources capable of improving nutrition and health quality.

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