

## “Ethnomedicinal plants and their Conservation in Chhattisgarh State: Review and Perspectives”

Preeti Madharia<sup>1</sup>, Aafreen Jahan<sup>2</sup>

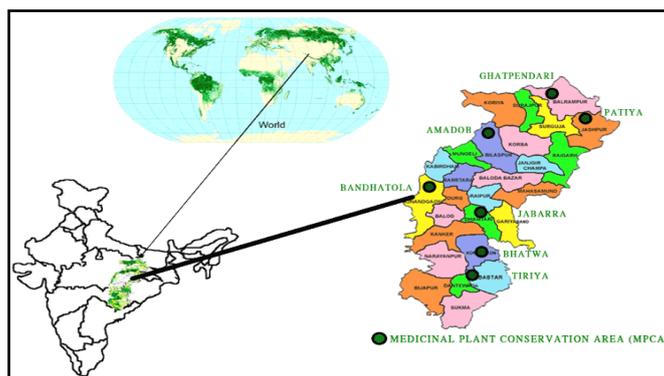
(Department of Biotechnology, Sai Mahavidyalaya, Bhilai (CG), India)

**Abstract:** Among the plant diversity some of the plants have great potential to treat many diseases which are referred to as medicinal plants. The main objective of the present study is to focus on the diversity of medicinal plants for further utility and conservation. Some selected common medicinal plants used among the hotspot of Chhattisgarh in Traditional/Alternative medicinal practice were reviewed. The medicinal plants were listed followed by botanical names, family, habit, parts used and propagation. Their names and taxonomy were provided by literature. The seeds were the highest proportion of plant parts being used.

**Keywords:** Biodiversity; Medicinal Plants; Medicinal uses.

### I. Introduction:

Ethnomedicine indicate the comparison or study of traditional medicinal plants. Chhattisgarh is a herbal state which shows a unique biogeographically condition and also showed plant genetic diversity in the area of 24036.100 Sq.Km. (Area of Protected forests) and 25782.167 Sq.Km. (Area of reserved forests) out of 59772.389Sq.Km. (Total area) (1). those help in health care and also help in treating the deterioration of environment.



### II. Material and Methods:

Chhattisgarh is a hotspot area of various herbal plants. Therefore this study was based on the collection of documentation and data's of various medicinal plants in Chhattisgarh year. Data were made for collection of medicinal plants their identification, followed by common name, scientific name, family, habit, plant part, use and propagation. The recorded plants have been presented in table.1. Habit and Part of plant which have medicinal value are given in the table no. 2,3.

### III. Conclusion:

An Ethnomedicinal plant plays a great role in exploiting the medicinal chemicals from the medicinal plants. About three-fourths of the biologically active plant derived compounds presently in use globally have been discovered through research on ethno-medicinal uses. Plants are still the main source of medicine to majority of people worldwide, about 90% of the raw materials required for preparation of modern medicine come from wild sources. The ethnobotanical information serves as a base for new compounds with active principles for phytochemical, pharmacognostical, pharmacological and clinical research. Therefore, conservation of threatened plants are needs to be addressed urgently.

	Plant Botanical Name	Plant Common Name	Family	Habit	Plant Part	Uses
1	<i>Tephrosia purpurea</i> (Linn.) Pers.	Meghapati	Fabaceae	Herb	Whole plant	skin diseases, purities, jaundice, splenomegaly, filariasis, dysmenorrheal, anemia, fever, boils, pimple, and hemorrhoids
2	<i>Eriocaulon sp.</i> Linn.	Ramsar	Eriocaulaceae	Herb	Whole plant	Inflammation, fever, pretties, jaundice and urinary system diseases.
3	<i>Asparagus recemosus</i> Wild.	Satavari	Liliaceae	Shrub	Root	Leucorrhoea, stomach ache, diarrhea, inflammation, burning sensation, excessive perspiration.
4	<i>Sida retusa</i> (Linn.) Borssum	Bala	Malvaceae	Shurb	-	Arthritis, asthma, cough, flatulence, colic, burning sensation, hemorrhoids, intermittent fever and general debility.
5	<i>Barleria prionitis</i> Linn. (Yellow variety)	Pilavasa	Acanthaceae	Shurb	Leaves	Pitta, gingivitis, stomatitis, burns, dental caries, inflammations ascites, edema, wounds, nocturnal ejaculation and cracking heel.
6	<i>Peperomia pellucida</i> Linn.	Toyakanda	Piperaceae	Herb	Whole plant	Constipation, kidney diseases, urinary retention, disuria, urinary tract infections, emaciation, edema and general weakness.
7	<i>Plumbago zeylanica</i> Linn.	Chitrak	Plumbaginaceae	Shrub	Root	Diarrhea, inflammation, fever, nervous palsy, hemorrhoids, skin diseases, irritable bowel disease, ammenorrhoea and anemia.
8	<i>Malaxis acuminata</i> D. Don.	jevak	Orchidaceae		Stem base	Oligospermia, burning sensation, emaciation.
9	<i>Datura metel</i> Linn.	Dhatura	Solanaceae	Herb	Whole plant	Arthritis, cough, asthma, muscle spasm, fever, ulcer, skin diseases, lumbago, sciatica.
10	<i>Euphorbia hirta</i> Linn.	Dudhi	euphorbiaceae	Herb	Whole plant	Pitta, rakta, asthma, skin disease, fever, cough, and anorexia.
11	<i>Phyllanthus amarus</i> Schum. & Thonn	Bhuiaounla	Euphorbiaceae	Herb	Whole plant	Vitiated pitta and kapha, anorexia, jaundice, intermitted fevers, urinary retention, constipation, ulcers and wounds.
12	<i>Clitoria ternatea</i> Linn (Blue variety)	Aparajita	fabaceae	Herb	Root, leaves, seeds	Vitiated pitta, migraine, skin diseases, bronchitis, asthma, tuberculosis.
13	<i>Argemone Mexicana</i> Linn.	Satyanasi	Papaveraceae	Shrub	Whole plant	Guinea-worm infestation, skin diseases, itching, inflammation, all types of poisoning, constipation, flatulence, colic, malarial fever.
14	<i>Ageratum conyzoides</i> Linn.	Sahadevi	Asteraceae	Weed	Whole plant	Vitiated kapha, vata hemorrhoids, anorexia, dyspepsia, kidney stones, cuts, wounds and ulcers and in conjunctivitis.
15	<i>Cleome viscosa</i> Linn.	Hul hul	Capparaceae	Herb	Whole plant	Vitiated kapha, intestinal worms, colic, stomach upset, cardio myopathy, diarrhea, fever and dyspepsia.
16	<i>Crotalaria retusa</i> Linn.	Khunkuniyan	Fabaceae	Shrub	Whole plant	Vitiated kapha, vata, cough, dyspepsia, fever, cardiac disorders, stomatitis, diarrhea, scabies and impetigo.
17	<i>Diplocyclos palmatus</i> (Linn.) Jeffrey	Shivlingi	Cucurbitaceae	Climber	Whole plant	Vitiated vata, pitta, inflammation, cough, flatulence, skin diseases and general debility.
18	<i>Solanum indicum</i> .	Barhanta	Solanaceae	shrub	Root, Fruit.	Plant pacifies vitiated vata, kapha, skin diseases, urinary retention, fever, cough, asthma, dysmenorrhea, colic, flatulence and constipation.
19	<i>Physalis minima</i> Linn.	Tankari	Solanaceae	herb	Whole plant	Plant pacifies vitiated pitta, burning sensation, hepatitis, splenomegaly, ascites, ulcer, sexual weakness and cough.
20	<i>Solanum nigrum</i> Linn.	Makoi	Solanaceae	herb	Whole plant	Plant pacifies vitiated thridoshas, swellings, cough, asthma, arthritis, inflammation and skin diseases, plant is a proven anti cancerous drug.
21	<i>Scoparia dulcis</i> Linn.	Barhanta	Scrophulariaceae	herb	Whole plant.	Plant pacifies vitiated kapha, pitta, renal and vesical calculus, inflammation, fever, wounds, ulcer, skin diseases, diarrhea,

						dysmenorrhoea and leucorrhoea.
22	<i>Abutilon indicum</i> Sw.	Kanghi	Malvaceae	shrub	Leaves, Root, Fruits	Plant pacifies tridoshas, especially vata, and pitta, poison, hyperdipsia, vomiting, Leukorrhoea and Menorrhagia.
23	<i>Cuscuta reflexa</i> Roxb ( <i>Cassythafiliformis</i> Linn.)	Amarbel	Convolvulaceae	shrubs or trees	Shoot.	Plant pacifies vitiated pitta, vata, intestinal worms, edema, skin diseases, diarrhea, headache, fever malignancy and paralysis. Plant may cause neurogenic illness if taken in excess dose or prolonged period.
24	<i>Hedyotis corymbosa</i> (Linn.)	Davana Patta	Rubiaceae		Whole plant.	Plant pacifies vitiated pitta, fever, depression, jaundice, giddiness, flatulence, colic, constipation, skin diseases, cough, bronchitis and hepatitis.
25	<i>Oxalis corniculata</i> Linn.	Changeri	Oxalidaceae	Herbs	Whole plant	Plant pacifies vata, kapha, dyspepsia, hemorrhoids, dysentery, diarrhea, dysmenorrhoea, hepatitis and burning sensation.
26	<i>Woodfordia fruticosa</i> (Linn.) Kurz.	Davi	Lythraceae	Shrub	Flower	Vitiated kapha, pitta, skin diseases, burning sensation, hemorrhage, anemia, leucorrhoea, menorrhagia, diarrhea, dysentery, ulcers, diabetes, oligospermia, urinary tract infections and jaundice.
27	<i>Tinospora cordifolia</i> (Wild.)	Giloy	Menispermaceae	Twiner	Stem	
28	<i>Gloriosa superba</i> Linn.	Kalihari	Liliaceae	Climber	Rhizome	Vitiated kapha, indigestion, fever, arthritis, obstructed labor, cardio-myopathy, skin diseases, in higher dose or with purification, it is highly poisonous.
29	<i>Cyathula prostrata</i> Blume	Lal Chirchira	amaranthaceae	Herb	Roots and Seeds	Diseases of urinary system and uterine disorders. It has constipating property.
30	<i>Anacyclus pyrethrum</i> DC.	akarkara	Asteraceae	Perennial plant	Roots	Paralysis, nervous weakness, dental pain, tonsillitis, headache, epilepsy, indigestion, diarrhea, sexual weakness, impotency and erectile.
31	<i>Boerhaavia diffusa</i> Linn	Gadahpurna	Nyctaginaceae	Herb	Whole plant	Vitiated vata, pitta, fever, constipation, leucorrhoea, lumbar pain, myalgia, skin diseases, cardiac disorders, urinary infection, vesical stone, anemia.
32	<i>Gardenia gummifera</i> Linn.f.	Dikamali	Verbenaceae	Shrub	Resin	Vitiated vata, kapha, skin disease.
33	<i>Achyranthes aspera</i> Linn,	Circita	Amaranthaceae	Shrub	Whole plant	Vitiated vata, kapha, asthma, bronchitis, flatulence, painful inflammations, vomiting, skin diseases, renal and vesical calculi.
34	<i>Cyperus esculentus</i> Linn.	Chichoda	Cyperaceae	Grass	Root tuber	Vitiated kapha, pitta, diarrhea, ingestion, anorexia, intermittent fever, burning sensation, headache, general debility and urinary retention.
35	<i>Sida spinosa</i> Linn.	Bariyara	Malvaceae	Shrub	Root, whole plant	Pain, arthritis, asthma, bronchitis, burning sensation, hemorrhoids, intermittent fever and general debility.
36	<i>Mimosa pudica</i> Linn.	Lajjavanti	Mimosaceae	Shrub	Whole plant	Oedema, allergy, bronchial asthma, hemorrhoids, menorrhagia, ulcer, jaundice, arthritis and fever.
37	<i>Andrographis paniculata</i> (Burm. F.) Wall. Ex Nees	Kairayant	acanthaceae	Herb	Whole plant	Skin diseases, burning sensation, cough and bronchitis. Plant stimulates liver and purifies vitiated blood.
38	<i>Bauhinia recinosa</i> Linn.	Kachnar	Caesalpiniaceae	Shrub	Bark, Flowers, Root.	Pacifies vitiated kapha, diarrhea, skin diseases, rectal prolapsed, diabetes, inflammations, worms, tumors, hemorrhoids and cervical lymphadenopathy.
39	<i>Costus speciosus</i> (Koenig ex Retz.) J.E. Smith.	Kebu, Kevu	Zingiberaceae	Shrub	Rhizome	Burning sensation, constipation, intestinal worms, skin diseases, fever, and bronchitis.
40	<i>Bauhinia variegata</i> Linn.	Kanchanar	Caesalpiniaceae	Tree	Bark, Flowers,	Diarrhea, skin diseases, rectal prolapsed, diabetes, inflammations, worms, tumors,

	( <i>Bauhinia purpuria</i> Linn.)				Root.	hemorrhoids, menorrhagia hemoptysis and cervical lymphadenopathy.
41	<i>Sonchus asper</i>	Didhi	Asteraceae	Herb	Whole part	Used as an emollient.
42	<i>Caesalpinia bonduc</i>	Kantkarej	Caesalpiniaaceae	Shrub	Bark, Flowers, Root	Fruits are tonic and antipyretic. Seeds yield a fatty oil used as a cosmetic and for discharges from the ear. Leaves and bark are febrifuge.
43	<i>Sida rhombifolia</i> Linn.	Barela	Malvaceae	Shrub	Root	Pain, arthritis, asthma, bronchitis, burning sensation and urinary retention.
44	<i>Ocimum americanum</i> Linn.	Van tulsi	Lamiaceae	Herb	Leaves, Seeds	Helminthiasis, anorexia, dyspepsia, pruritis, leprosy, vomiting, poison, migraine, and fever.
45	<i>Adhatoda vasica</i> Nees.	Adusa	Acanthaceae	Shrub	Whole plant	Vitiated pitta, kapha, cough, bronchitis, asthma, inflammation, hemorrhage, hemorrhoids, disease of eyes, and bleeding diarrhea.
46	<i>Solanum virginianum</i>	Ringini	Solanaceae	Herb	Whole plant	Boiled decoction of dry plant is prescribed for stomach and liver complaints.
47	<i>Emilia sonchifolia</i> (Linn.) DC	Hirankhuri	Asteraceae	Herb	Whole plant	Conjunctivitis, worm infestations, tonsillitis, bleeding piles, cuts, ulcers intermittent fever and allergy.
48	<i>Vernonia cinera</i> (Linn.) Less.	Sadodi	Asteraceae	Herb	Whole plant	Tonsillitis, stomach pain, diarrhea, intermitted fever, eczema, herpes, elephantiasis. Plant possess anti cancerous property.
49	<i>Urena lobata</i> Linn.	Kunjia	Malvaceae	Herb	Whole plant	Colic, cough, bronchitis, dry cough, asthma, low back pain, arthritis, consumption and general weakness.
50	<i>Calotropis gigantea</i> (Linn.) R.Br. (Blue variety)	Mandara	Asclepiadaceae	Shrub	Root, Latex, Flower and Leaves.	Vitiated tridoshas, skin diseases, joint inflammations, snake poison, asthma and chest infections and rabies. It is strong purgative drug.

**Table 1: List of Medicinal Plants in Chhattisgarh State.**

Habit	No. of medicinal plant	Percentage
Herb	21	42%
Shrub	19	38%
Trees	2	4%
Climber	2	4%
Weed	1	2%
Grass	1	2%
Perennial Plant	1	2%

**Table 2: Distribution of Medicinal Plant in Chhattisgarh by Habits.**

Plant part	No. of medicinal plant	Percentage
Whole plant	28	50%
Root	14	24.13 %
Leaves	5	8.6%
Flower	5	8.6%
Bark	3	5.17%
Seed	3	5.17%
Rhizome	2	3.44%
Stem base	1	1.72%
Fruit	1	1.72%
Shoot	1	1.72%
Stem	1	1.72%
Resin	1	1.72%
Tuber	1	1.72%
Latex	1	1.72%

**Table 3: Medicinal Plants by Their Part Utilized.**

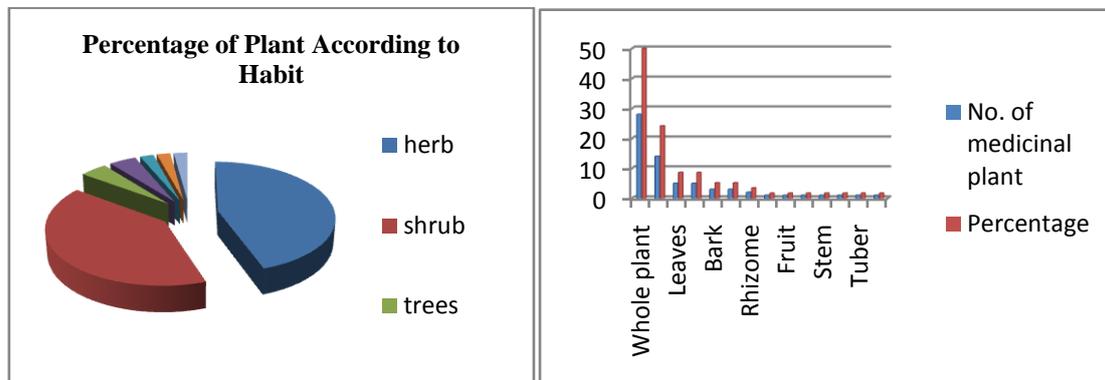


Fig: 1 Distribution of Medicinal Plant In Chhattisgarh By Habits      Fig:2 Medicinal plants by their part utilized

### References

- [1]. Tirkey A., Nagvanshi D. and Sahu M. Collection and conservation of endangered medicinal plant species diversity for maintaining ecological balance, *Recent Research in Science and Technology* 2014, 6(1): 167-170.
- [2]. Jain SP and Singh J. Traditional medicinal Practices among the tribal people of Raigarh (C.G), *Indian Journal of Natural Products and Resources* 2010, 1 (1):109-115.
- [3]. Maroyi A. traditional use of medicinal plants in south-central Zimbabwe: review and perspectives, *journal of ethnobiology and ethnomedicine*, 2013, 9:31.
- [4]. Panda A. and Mishra M.K. ethnomedicinal survey of some wetland plants of south Orissa and their conservation, *Indian journal of traditional knowledge*, 2011, 10(2): 296-303.
- [5]. Katewa SS, BD Guria and Anita Jain (2001). Ethnomedicinal and abnoxious grasses of Rajasthan, India. *Journal of Ethnopharmacology* 76(3) 293-297.
- [6]. King G (1870). Notes on vegetable products used as food during late famine in Rajasthan. *Transactions of the Botanical Society Edinburgh* 10 198.
- [7]. Nargas J and Trivedi PC (1999). Traditional and medicinal importance of *Azadirachta indica* juss. in India. *Journal of Economic and Taxonomic Botany* 23(1) 33-37.
- [8]. Ignacimuthu S., Ayyanar M. and Sivaraman K., ethnobotanical investigations among tribes in Madurai District of tamil Nadu (India) *journal of ethnobiology and ethnomedicine*, 2006 2:25.