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# ETHNOMEDICINAL AND PHARMACOGNOSTICAL STUDIES OF SOME TRADITIONALLY IMPORTANT MEDICINAL PLANTS FROM THREE DISTRICTS OF CHHATTISGARH, INDIA

**DEEPTI CHAUHAN[a1], NISREEN HUSAIN[b] AND TOUSEEF HUSSAIN TRAK[c]**

[a]Department of Botany, Bhilai Mahila Mahavidyalaya' P.G College, Bhilai, Chhattisgarh, India
[b]Department of Zoology, Government Dr. W.W Patankar Girls' P.G College, Durg, Chhattisgarh, India
[c]Department of Botany, Government Degree College Kishtwar, Jammu and Kashmir, India

## ABSTRACT

**Ethnobiology is the vast arena of study of plants and present interrelationships between human cultures and the plants, animals, and other organisms in their environment. Ethnobotany, as a sub-branch of Ethnobiology, deals particularly with the apparent connections between cultural practices, plants and ecosystems. Apart from its basic aspects, it involves enhanced food security, nutrition and healthcare. Healthcare from the ancient times is known to comprise of the treatment ,cure and prevention of diseases through the herbal drugs prepared from the so called 'Medicinal plants'.These plants used by various ethnic groups in the traditional medicinal system, still holds its place significantly even in the modern pharmacological era. The basic principle involved is that the herbal drugs prepared with traditional methods conserves all the natural substances within it in the naturally balanced form. The phyto-chemicals and the secondary metabolites in the form of natural plant resources attribute to the various pharmacological activities, that enhance the medicinal implications in the treatment of various ailments successfully . The present paper reviews the information about 20 species of medicinal plants from three important districts of Chhattisgarh, India, *viz*., Durg, Balod, Rajnandgaon with emphasis on their Ethnomedicinal and Pharmacognostical importance.**

**KEYWORDS:** Ethanobiology, Pharmacognostical, Herbal drug, Medicinal plants, Healthcare, Phytochemicals

Ever since the dawn of civilization the plants have been used by tribes and local people for cure of various diseases. In most Indian traditional families the home made preparations of plants are used for the treatments of different diseases. Interestingly people call these preparations as "Dadi Ma ka Nuska". Surprisingly however, some good results of these medicines are also reported. In the modern society most of the diseases are life style disease and the use of herbal medicines can overcome such problems( Schultes, 1962). More over several difficult diseases have problem related with vitality, diabetes, memory loss, could be cured effectively by use of herbal medicine, which is generally not possible by the Allopathic medicines. Upadhyay *et al.,* 2010;,Saini *et al.,* 2010;Sharma and Kumar, 2011;Sharma and Kumar, 2012 have conducted studies on Ayurvedic crude drugs for cure of many diseases such as digestive diseases, leprosy, skin diseases, malaria and paralysis. However, there is no systematic documentation of this information. The present paper attempts to review the information of some plants which are used for the treatments of different diseases by the local people.

## METHODOLOGY

The study area of present work selected were three districts of Chhattisgarh state, India, i.e., Durg, Rajnandgaon and Balod. Total forest area of about three districts is 3786.22 sq. kms, which is about 46.355% of total geographic range of these three districts. The river Indravati, a tributary of Godavari, are the main water resource of the three zones. The rich water resource with Red-sandy soil provide favorable environmental factors for growth of natural vegetation. Field study was carried on the basis of Ethno-medicinal information , that was gathered from the local people of study area. The questionnaire was prepared, with the focus on the local names, Ethno-medicinal importance, and major infections and diseases under consideration for treatment. The data were arranged according to taxonomic identification of the plants, local name, and their Ethno-medicinal importance.

## PLANTS OF ETHNOMEDICINAL AND PHARMACOGNOSTICAL IMPORTANCE

***Abelmoschus esculentus* (Linn.)Moench.**

**Family-** Malvaceae.

**Habitat-** Native to tropical Africa; cultivated throughout India,

**English-** Gumbo, Lady Finger, Okra.

**Ayurvedic-** Bhaandi, Bhindaka,Bhendaa..

**Folk-** Bhindi, Raamturai.

[1]Corresponding author

**Medicinal use and active principles;** Immature pods (decoction) are emollient, demulcent and diuretic (in catarrhal affections, ardor urine, dysuria, dysentery). Seeds are antispasmodic. Fatty fraction of the fresh watery extract of the seeds causes destruction of cancerous cell growth *in vitro*. The pods are reported to exhibit antitumour activity. An ethanolic extract of pods was effective against Grampositive bacteria. The ripe fruits contain quercetin, hyperin (hyperoside), hydrolysate of precipitated mucilage, proanthocyanidins, D-glucose, D-glucuronic and galacturonic acids. Fresh flowers contain flavonol glycosides and anthocyanins. Leaves showed mild activity against Gram-positive bacteria but exhibited potent antibacterial activity against Gram-negative bacteria *E. coli*.

***Abrus precatorius* Linn.**

**Family** -Fabaceae.

**Habitat** - Throughout the country.

**English** - Indian Wild Liquorice, Jequirity, Crab's Eye, Precatory Bean.

**Ayurvedic** - Gunjaa, Gunjaka, Chirihintikaa, Raktikaa, Chirmiti, Kakanti, Kabjaka, Tiktikaa, Kaakananti, Kaakchinchi.

**Folk** - Chirmiti, Ratti.

**Medicinal use and active principles;** Uterine stimulant, abortifacient, toxic. Seeds are teratogenic. A paste of seeds is applied on vitiligo patches. Along with other therapeutic applications, seeds used in baldness. Seeds contain abrin, a toxalbumin, indole derivatives, anthocyanins, sterols, terpenes. Abrin causes agglutination of erythrocytes, haemolysis and enlargement of lymph glands. A nontoxic dose of abrin (1.25 mcg/kg body weight), isolated from the seeds of red var., exhibited a noticeable increase in antibody-forming cells, bone marrow cellularity and alpha-esterase-positive bone marrow cells. Oral administration of agglutinins, isolated from the seeds, is useful in the treatment of hepatitis and AIDS. Theseed extract exhibited antischistosomal activity in male hamsters. The methanolic extract of seeds inhibited themotility of human spermatozoa. The roots contain precol, abrol, glycyrrhizin (1.5 %) and alkaloids—abrasine and precasine. The roots also contain triterpenoids—abruslactone A, methyl abrusgenate and abrusgenic acid. Alkaloids/bases present in the roots are also present in leaves and stems.

***Abutilon indicum* Linn. Sweet.**

**Family-** Malvaceae.

**Habitat** - Throughout the hotter parts of India.

**English** - CountryMallow, Flowering Maples, Chinese Bell-flowers.

**Ayurvedic** - Atibalaa, Kankatikaa, Rishyaproktaa.

**Folk** - Kanghi, Kakahi, Kakahiyaa.

**Medicinal use and active principles-** Dried, whole plant— febrifuge, anthelmintic, demulcent, diuretic, anti-inflammatory (in urinary and uterine discharges, piles, lumbago). Juice of the plant is emollient. Seeds are demulcent (used in cough, chronic cystitis), laxative. Leaves are cooked and eaten for bleeding piles. Flowers are antibacterial, anti-inflammatory. Bark is astringent, diuretic. Root is nervine tonic, given in paralysis; also prescribed in strangury. Along with other therapeutic applications, roots use in gout, polyuria and haemorrhagic diseases. The plant contains mucilage, tannins, asparagines, gallic acid and sesquiterpenes. Presence of alkaloids, leucoanthocyanins, flavonoids, sterols, triterpenoids, saponins and cardiac glycosides is also reported. Asparagine is diuretic. Gallic acid is analgesic. Mucilages act by reflex, loosen cough as well as bronchial tension. Essential oil is antibacterial, antifungal. The drug exhibits immunological activity. It augments antibody in animals.

***Acacia arabica* Wild.**

**Family-** Fabaceae

**Habitat** - Throughout the drier parts of India.

**English-** Babul, Black Babul, Indian Gum, Arabic tree.

**Ayurvedic-** Babbuula, Babbuuri, Baavari, Aabhaa, Shuulikaa, Shitaka, Kinkiraata, Yugmakantaka, Sukshmapatra, Pitapushpaka.

**Medicinal use and active principles;** Stembark is astringent, spasmolytic, hypoglycaemic. Gum is

demulcent (soothing agent for inflammatory conditions of the respiratory, digestive and urinary tracts). Pods are used in urogenital disorders. Seeds are hypoglycaemic in normal rats; no such effect in diabetic rats. Seed oil antifungal. Flowers, pods and gum resin are used in diarrhoea and dysentery. Along with other therapeutic applications, stembark used in acute diarrhoea and helminthiasis. Tannin contents of the bark varies considerably (12-20 %). Several polyphenolic compounds have been reported in the bark, also in the pods. The whole pod contains 12-19 % tannins and 18-27 % after the removal of seeds. Theseeds of *A. benthamii*, *A. nilotica* ssp. *subulata*, probably same as ssp. *indica*, are considered hypoglycaemic. Some seed components stimulate insulin secretion by beta cells. The gum contains galactose; *l*-arabinose, *l*-rhamnose and aldobiouronic acids, also arabinobioses. The flowers contain flavonoids-kaempferol-3-glucoside, iso-quercitrin and leucocyanidin.

***Acacia catechu* L.**

**Family-** Fabaceae

**Habitat** - Drier regions of India, particularly Punjab, Madhya Pradesh, Uttar Pradesh, Bihar,Andhra Pradesh, Orissa and Rajasthan.

**English** - Cutch tree, Catechu.

**Folk**- Kattha

**Ayurvedic** - Khadira, Kadara, Somavalka, Gaayatri, Dantdhaavan, Kantaki, Raktasaara (heartwood extract).

**Medicinal use and active principles;** Cutch from wood is powerful astringent (in urinary and vaginal discharge), antidiarrhoeal, haemostatic; used for treating excessive mucous discharges, haemorrhages, relaxed conditions of gums, throat and mouth, stomatitis, irritable bowel; also used as an antileprotic drug. Along with other therapeutic applications, dried pieces of heartwood used in inflammations, skin diseases and urinary disorders, recommends its use as a blood purifier, in diseases caused by lipid disorders. Cutch (the concentrated extract) contains tannins 2-20 %, catechin 25-33 % phlobatannins including catechutannic acid 25-50 %; flavonoids including quercetin, quercitrin, fisetin; gums, resins, pigments. The gum from *A. catechu* is a good substitute for Gum arabic. Seed extract—hypoglycaemic to normal albino rats, but not effective in diabetic rats. The saline extract of seeds shows leuco-agglutinating activity against leukaemic cells. It agglutinates white cells from patients with different types of leukaemia. The activity is inhibited by simple sugars. Root extract shows antibacterial and fungicidal activity. The heartwood contains a hepatoprotective principle—cyanidanol. Astringent and antibacterial properties of catechu result from its high tannin content. Gambrine in pale catechu shows hypotensive effects. Fisetin in black catechu and (+)-catechin in black and pale catechu may protect against liver damage; (+)- catechin is also thought to protect against experimentally induced ulcers in animals; (+)-catechin (cianidanol) is associated with fatal anaemia. Methylcatechin, one of the major metabolites of (+)-catechin, inhibits the binding of monocytes to vascular endothelial cells; thus, the catechin found in catechu may reduce atherosclerosis.

***Acalypha indica* Linn.**

**Family** - Euphorbiaceae.

**Habitat** - Occurs throughout the plains of India,

**English** - Indian Acalypha.

**Ayurvedic** - Kuppi, Muktavarchaa, Haritamanjari

**Folk** - Khokli, Kuppi, Aamaabhaaji.

**Medicinal use and active principles-** Antibacterial (leaf used in scabies). Plant is emetic, expectorant (used in bronchitis, asthma, pneumonia). Tincture of fresh plant is used in homoeopathy for incipient phthisis with bloody expectorations, emaciation and arterial haemorrhage. The plant contains kaempferol; leaves and twigs contain acalyphamide and other amides, quinone, sterols, cyanogenic glycoside. The herb causes intestinal irritation

***Achyranthes aspera* Linn.**

**Family** - Amaranthaceae.

**Habitat** - Throughout the tropical and subtropical regions, up to an Andaman Islands.

**English-** Prickly Chaff Flower.

**Ayurvedic-** Apaamaarga, Chirchitaa, Shikhari, Shaikharika, Adahshalya, Mayura, Mayuraka, Kharamanjari, Kharapushpaa, Pratyakpushpaa, Aaghaat, Vashira, Kanihi.

**Folk** -Chirchitta, Chichidaa, Latjeeraa.

**Medicinal use and active principles-** Astringent, pectoral (ashes of the plant used in asthma and cough), diuretic, hepatoprotective, emmenagogue. Benzene extract of the plant exhibited abortifacient activity. The flowers, ground and mixed with sugar, are given for menorrhagia. Roots are astringent, haemostatic. Seeds are emetic; used for biliousness. Essential oil is antifungal.
The plant is used in lipid disorders and obesity, and the root for its blood-purifying property. The plant juice and ash are used for treating bleeding piles. An alkaline powder of the plant is used in preparing Kshaarasutra of Ayurvedic medicine, which is recommended for treating fistula-in-ano. The whole plant contains the alkaloids achyranthine and betaine. Achyranthine, a water-soluble alkaloid, is reported to dilate blood vessels, lower blood pressure, decrease heart rate and increase the rate and amplitude of respiration. It also shows spasmodic effects on the rectus muscle of frog, diuretic and purgative action in albino rats. The presence of ecdysterone and oleanolic acid is also reported in the root. The ashes of the plant yield large quantities of potash. The seeds yield saponins and oleanolic acid and its ester. The presence of tannins and glycosides is also reported in the plant.

***Adhatoda vasica* Nees.**

**Family** - Acanthaceae.

**Habitat** - Throughout India.

**English**- Malabar Nut, Vasaca.

**Ayurvedic** - Vaasaa, Vaasaka, Vaasikaa, Simhaasya, Simhaparni, Simhavadanaa, Vaajidanta, Vrisha, Aataruushaka.

**Folk** - Vasaakaa.

**Medicinal use and active principles-** Expectorant (used in bronchial, asthmatic and pulmonary affections), antispasmodic, febrifuge.

**Key application-** As bronchodilatory, expectorant. its use in dyspnoea. The chief quinazoline alkaloid vasicine is reported in all parts of the plant, the highest being in inflorescence. It is a bitter bronchodilator, respiratory stimulant, hypotensive, cardiac depressant, uterotonic and abortifacient. An aqueous solution of vasicinone hydrochloride, when studied in mice and dogs, was found to potentiate the bronchodilatory activity of aminophylline, also that of isoprenaline. Vasicinone exhibited smoothmuscle- relaxant properties of airways. Alkaloids present in the plant showed significant protection against allergin-induced bronchial obstruction in guinea pigs. The leaves are found to activate the digestive enzyme trypsin. An extract of the leaves showed significant antifungal activity against ringworm. Fresh leaf juice is used in haemoptysis and menorrhagia, also as an antiasthmatic.

***Argemone mexicana* Linn.**

**Family** - Papaveraceae.

**Habitat** -Native to America; naturalized throughout India.

**English** -Prickly Poppy, Mexican Poppy.

**Ayurvedic** -Katuparni, Svarnkshiri, Kaanchan-kshiri, Pitadugdhaa. Hemaahvaa, Himaavati, Hemavati.

**Medicinal use and active principles-** Seed is responsible for epidemic dropsy. Causes diarrhea and induces toxicity. Oil, leaf juice and root are used externally for indolent ulcers and skin diseases. The herb contains isoquinoline alkaloids. The fresh latex contains protein dissolving constituents and is used externally to treat warts, tumours and cancer. Latex contains alkaloid berberine (0.74 %), protopine (0.36 %) and free amino acids. Sanguinarine is the toxic factor in seeds.

***Asparagus racemosus* willd.**

**Family-** Asparagaceae.

**Habitat** - Found wild in tropical and subtropical parts of India,

**English-** Indian asparagus.

**Ayurvedic** -Shataavari, Shatmuuli, Atirasaa, Bahusutaa, Shatpadi, Shatviryaa, Bhiru, Indivari

**Medicinal use and active principles-** Used as a galactagogue and for disorders of female genitourinary tract; as a styptic and ulcer-healing agent; as an intestinal disinfectant and astringent in diarrhoea; as a nervine tonic, and in sexual debility for spermatogenesis. Along with other therapeutic applications, tuberous rootused in gout, puerperal diseases, lactic disorders, haematuria,

bleeding disorders and also recommends it for hyperacidity. The plant contains saponins shatavarins I–IV. Shatavarin IV is a glycoside of sarsasapogenin. The saponin in doses of 20-500 mcg/ml produces a special blockade of syntocinon (oxytocin)- induced contraction of rat, guinea- pig and rabbit uteri in vitro and in situ. It also blocks the uterine spontaneous motility. The dried root yields sitosterol; 4,6- dihydroxy-2–O-(2' hydroxyisobutyl) benzaldehyde and undecanyl cetanoate, and contains a large amount of saccharine matter, mucilage and minerals— Ca (0.172), Cu (0.033), Na (14.60), K (8.32), Mg (0.169), Mn (0.0074), Ni (0.105) and Zn (0.072) mg/g(dry weight). The root was found to reduce gastric emptying time comparable to that of metoclopramide. The root extracts exhibited antiallergic activity in animal studies. The root, when fed orally, acted as immune modulator against induced sepsis and peritonitis in rats and mice.

***Barleria prionitis* Linn.**

**Family-** Acanthaceae.

**Habitat-** Throughout the hotter parts of India. Commonly grown as a hedge plant in gardens.

**English-** Common Yellow Nail DyePlant.

**Ayurvedic** -Sahachara, Baana, Kurantaka, Kuranta, Koranda, Korandaka, Shairiya, Pita-saireyaka (yellow-flowered var.). Vajradanti.

**Folk** - Piyaabaasaa, Jhinti, Katsaraiyaa.

**Medicinal use and active principles;** Leaf juice given in stomach disorders, urinary affections; mixed with honey and given to children with fever and catarrh; leaf juice is applied to lacerated soles of feet in the rainy season, mixed with coconut oil for pimples. Leaves and flowering tops are diuretic. Bark are diaphoretic and expectorant. Roots as paste is applied over boils and glandular swellings. Plant (Vajradanti) is antidontalgic, used for bleeding gums in Indian medicine. Ash, obtained from the whole plant, mixed with honey, is given in bronchial asthma. Oil extract of the plant for arresting greying of hair. The leaves and flowering tops are diuretic, rich in potassium salts. Leaves and stems showed presence of iridoid glucosides, barlerin and acetylbarlerin. Flowers gave the flavonoid glycoside, scutellarein. The presence of beta-sitosterol is reported in the plant.

***Bauhinia purpurea* Linn.**

**Family** - Fabaceae

**Habitat** - The Himalayas, and distributed in Northern India, Assam, Khasi Hills. Also cultivated in gardens.

**English** - Camel's Foot tree, Pink Bauhinia, Butterfly tree, Geramium tree, Orchid tree.

**Ayurvedic** - Kovidaara, Rakta Kaanchanaara.

**Folk** - Koilaara, Khairwaal, Kaliaar, Rakta Kanchan.

**Medicinal use and active principles-** Bark is astringent, antidiarrhoeal. Flower buds and flowers, fried in purified butter, are given to patients suffering from dysentery. Extract of stems are used internally and externally for fractured bones. Plant is used in goiter. It exhibited antithyroid-like activity in experimental animals. The flowers contain astragalin, isoquercitrin and quercetin, also anthocyanins. Seeds contain chalcone glycosides

***Bixa orellana* Linn.**

**Family** - Bixaceae.

**Habitat** - Native to Central America, often cultivated in Madhya Pradesh and South India.

**English-** Annatto.

**Ayurvedic** -Sinduri, Sinduriyaa.

**Medicinal use and active principles-** Plant is astringent, antibilious, antiemetic, blood purifier. Leaves as infusion are given in jaundice and also in dysentery. Externally it is applied as scar-preventive. Root bark is febrifuge, antiperiodic. Seed pulp is haemostatic, antidysenteric, diuretic, laxative. Fruit is antidysenteric. An antimicrobial constituent, maslinic acid, alongwith gallic acid and pyrogallol, has been isolated from the leaves. Alcoholic extract of the leaves completely inhibited *Micrococcus pyogenes,* but was inactive against *E. coli.* The aqueous extract, however, showed partial inhibition against *E. coli.* The aqueous extract also showed potent inhibitory activity towards lens aldose reductase, which plays an important role in the management of diabetic complications. The activity is attributed to a flavonoid, isoscutelarein.

***Caesalpinia pulcherrima* Sw.**

**Family** - Fabaceae

**Habitat** - Cultivated in gardens throughout India.

**English** - Barbados Pride, Peacock Flower.

**Ayurvedic** - Padangam, Ratnagandhi, Krishnachuudaa.

**Folk** - Guleturaa, Sankeshwara.

**Medicinal use and active principles-** Leaves—laxative, antipyretic. Dried and powdered leaves are used in erysipelas. Flowers—anthelmintic. Also used for cough and catarrh. Root—a decoction is prescribed in intermittent fevers. Bark— emmenagogue, abortifacient. The plant contains a flavonoid, myricitroside. The leaves, flowers and fruits contain tannins, gums, resin, benzoic acid. Presence of cyanidin- 3,5-diglucoside is also reported from the flowers, hydrocyanic acid from the leaves.The root contains caesalpin type diterpenoids along with sitosterol. The leaves have displayed anticancer activity in laboratory animals. A diterpenoid, isolated from the root, also showed anticancer activity. In Pakistan, the leaf and flower extract exhibited activity against Grampositive bacteria.

***Careya arborea* Roxb.**

**Family -** Barringtoniaceae.

**Habitat** -Sub-Himalayan tract, from Jammu eastwards to West Bengal, Madhya Pradesh and Tamil Nadu.

**English** - Kumbi, Slow-Match tree.

**Folk: -** Bandar Laddu

**Ayurvedic** -Katabhi, Kumbhika, Kumbhi, Kumbi, Kaitrya, Kumudikaa.

**Medicinal use and active principles;** Bark—demulcent (in coughs and colds), antipyretic and antipruritic (in eruptive fevers), anthelmintic, antidiarrhoeal. An infusion of flowers is given after child birth. Seeds contain triterpenoid sapogenols, sterols; leaves contain a triterpene ester, beta-amyrin, hexacosanol, taraxerol, beta-sitosterol, quercetin and taraxeryl acetate.

***Cassia tora* Linn.**

**Family** –Fabaceae

**Habitat** -Throughout India as a weed.

**English** -Sickle Senna, Ringworm Plant.

**Ayurvedic** _ Chakramarda, Chakri, Prapunnaada, Dadrughna, Meshalochana, Padmaata, Edagaja.

**Folk** _ Chakavad, Daadamaari. Chirota

**Medicinal use and active principles;** Leaves-taken internally to prevent skin diseases; applied against eczema and ringworm; pounded and applied on cuts, act like tincture of iodine. Seeds, soaked in water, are taken for spermatorrhoea. A paste made of equal parts of leaves and seeds is given for jaundice. Pods are used in dysentery. Along with other therapeutic applications, seed used in paralysis and hemiplegia as a supporting drug. The leaves contain chrysophanol, aloe-emodin, rhein and emodin. Mature leaves possess purgative properties and are sometimes utilized to adulterate the true senna; also used as an antiperiodic and anthelmintic. The leaf extract exhibited antifungal activity against the ringworm fungus Microsporon nanum. Seeds contain anthraquinone glycosides, naptho-pyrone glycosides, cassiaside and rubrofusarin-6-beta-gentiobioside. These constituents showed significant hepatoprotective activity. Thrachrysone, isolated from seeds, showed stronger antioxidant activity than tocopherol and BHA. Chrysophanic acid-9-anthrone, extracted from the seed, was found to be active against ringworm fungi.

***Delonix regia* Rafin.**

**Family** – Fabaceae

**Habitat** - Native to Madagascar; grown in gardens and avenues for ornamental purposes and for shade.

**English** -Flamboyant Flame tree, Gold Mohur.

**Ayurvedic** - Gulmohar (var.)

**Medicinal use and active principles;** Bark-antiperiodic, febrifuge. Plant-antirheumatic, spasmogenic. Flowers (aqueous and alcoholic extract)-active against roundworm. White Gulmohar trunk-bark yielded

asparagine and aspartic acid. Flowers gave *iso*-quercetin. *Delonix regia* bark gave leucocyanidin; bark and leaves contain tannin, lupeol and beta-sitosterol, and free OHproline as major amino acid. Flower anthers are a rich source of zeaxanthin

***Diospyros melanoxylon* Roxb.**

**Family** - Ebenaceae.

**Habitat** -Madhya Pradesh, Maharashtra, Orissa, Bihar, Uttar Pradesh and West Peninsula.

**English** -Coromandel Ebony, Persimmon.

**Ayurvedic-**Tinduka (var.), Dirghapatrakaa.

**Medicinal use and active principles;** Leaves- carminative, laxative, diuretic, styptic. Bark— astringent. Used in dyspepsia and diarrhoea. Unripe fruit- carminative and astringent. Ripe fruit-antibilious. Dried flowers- used in anaemia, inflammation of spleen, also in leucorrhoea. Leaf and dried flower-used in dyspepsia and diarrhoea, topically in scabies. Aerial parts—hypotensive. Half-ripe fruit contains 23, ripe fruit 15 and bark 19% tannin. The bark and sapwood extracts yield beta-sitosterol, lupeol, betulin and betulinic acid. Leaves contain hentriacontane, hentriacontanol, alpha-amyrin, baurenol, ursolic, oleanolic and betulinic acids.

***Echinops echinatus* Roxb.**

**Family** - Compositae; Asteraceae.

**Habitat** -Throughout India.

**English** -Globe-Thistle, Camel's Thistle.

**Ayurvedic** -Utkantaka, Uttundaka, Brahmadandi.

**Folk** -Uunta-Kateraa.

**Medicinal use and active principles;** Alterative, diuretic, nerve tonic (used in hoarse cough, dyspepsia, scrofula, hysteria.) Aerial parts of the plant contain alkaloids, echinopsine, echinopsidine and echinozolinone. Taraxasterol acetate, isolated from the plant, is a potent anti-inflammatory constituent; the ethanolic extract of the whole plant is more effective when administered parenterally than orally. Apigenin and its derivatives, echinacin and echinaticin show antifungal activity.

***Eclipta alba* (Linn.) Hassk.**

**Family** -Compositae; Asteraceae.

**Habitat** - Throughout India,

**English** -Trailing Eclipta Plant.

**Ayurvedic** - Bhringaraaja, Bhringa, Bhringaja, Bhrngaaraka, Bhrngaara, Maarkava, Kesharaaja, Keshranjana.

**Folk** -Bhangaraa.

**Medicinal use and active principles-** Deobstruent, antihepatotoxic, anticatarrhal, febrifuge. Used in hepatitis, spleen enlargements, chronic skin diseases. Leaf— promotes hair growth. Its extract in oil is applied to scalp before bed time in insomnia. The herb is also used as an ingredient in shampoos.

It is hepatoprotective. The herb should be dried at room temperature under shade. Its active principles are lost due to aerial oxidation during sun drying or drying under reduced pressure below40°C.The herb contains wedelolactone and demethylwedelolactone, which showed a dosedependent effect againstCCl4, *d*-galactosamine- or phalloidin-induced cytotoxicity in primary cultured rat hepatocytes, and exhibited potent antihepatotoxic property. The whole plant shows effect on liver cell regeneration. Immunoactive property has been observed against surface antigen of hepatitis B-virus. Theplant is also reported to be effective in the treatment of peptic ulcer, inflammatory diseases, including rheumatoid arthritis, diseases of the gallbladder and skin infections. Aqueous extract of leaves exhibits myocardial depressant and hypotensive activity (unrelated to cholinergic and histaminergic effects). The roots are very rich in thiophene acetylenes. Thiophene derivatives show activity against nematodes.

## RESULTS AND DISCUSSION

The 20 traditionally important species were surveyed from the three districts of Chhattisgarh, India, *viz.* Durg, Balod, Rajnandgaon ,for their Ethnomedicinal and Pharmacognostical importance. These belong to 11 Families *viz*.Malvaceae, Fabaceae, Euporbiaceae, Amaranthaceae, Acanthaceae, Papaveraceae, Asparagaceae, Bixaceae, Barringtoniaceae, Ebenaceae, Asteraceae. Amongst all the plants, *Abrus precatorius,*

*Abutilon indicum, Acacia catechu, Achyranthus aspera,Adathoda vasica, Asparagus racemosus, Bauhinia purpurea, Bixa orellana, Cassia tora, Diospyros melonoxylon,* are popularly known for their medicinal value among the tribes and common people of Chhattisgarh.These are the rest of the plants are the integral part of the herbal medicines of common use. The herbal medicine suits to the social and cultural needs of the people and influence the patient's physical, mental and emotional states as well. The herbal drugs prepared with the traditional methods through slow grinding and mixing processes conserves all the natural substances within it in the 'naturally balanced form 'without losing any essential component and maintains the activity and purity of the drug. The presence of several essential components in the 'naturally balanced state 'is perhaps the very basis which accounts for the minimal side effects of herbal drugs (Pathak *et al.,*2013). They are being tested since time immemorial and proved to have side benefits in place of adverse effect generally produced by synthetic and chemical based harmful products. A number of plants may be processed in cosmetics which are in great demand in India and abroad likely. Perhaps the outstanding example, at least in modern times of the use of the literature is the huge compilation of all anti-tumour plants, cited in old texts and local folk medicine from all over the world for screening purpose at Cancer Chemotherapy National Service Center (CCNSC) (Rodeiro *et al*.2008). Our ancient literature can also be tapped for information on medicinal plants. It is estimated that nearly one third of about 15,000 higher plant species in India are used by the tribal's and poor people. No authentic record of any kind except a few archaeological sculptures of Mohenjo-Daro is available from the pre-Vedic period in this country. But, Rigveda and Atharvaveda, which date back to 2000 to 1000 B.C. are our oldest Vedic literature resources. They contain valuable information regarding medicinal plants of that period. Thus, from the very ancient times, Indian folk life has not only been including trees, plants and flowers as members of their own family but has also found in them the image of God. It is for this reason that the songs, tales and other expressions are replete with deep affection for trees and plants.

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