

Ethanopharmacological Study of Gond Tribe of Devlappar Region of Nagpur District of Maharashtra State

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Abstract:-The ethanopharmacological survey of Gond tribe of devlappar region of Nagpur district, Maharashtra, India was conducted during year 2015-2016. The survey of Revel, the use of nine ethanomedicinal plants prescribed by medicine man (Vaidu) to cover various ailments was done. In order to establish rationale behind ethanopharmacological use of these plant species a comprehensive literature survey on the report of plants, phytochemical and pharmacological work was undertaken by the authors. The literature survey was done with the help of e-library facilities using online database. Ethanomedicinal use were corroborated with chemical and biological activities so as to check evidence based validity of herbal drugs.

Keywords:- Gond Tribe, Ethanomedicinal, Herbal Drug, Biological Activities.

I. INTRODUCTION

Human being have been using plant since long. Research work are bringing to light additional information on the relationship between the indigenous people and their plant surroundings from the subject of ethanobotany. Since the pre-historic survival and economic well and constituents the resources upon which families communities and future generation depend. Maharashtra is extremely rich medicinal plant diversity distributed in different geographical and environmental condition and associated tribal and folk knowledge system. As the rural Indian tribal villagers are deprived of modern health care system, they are highly

dependent on traditional therapeutic methods of medicinal plants for meeting their health care needs.

II. STUDY AREA

The devlappar region of nagpur division has some of the best moist deciduous forest of the State. This tropical moist deciduous forest also known as Southern Tropical Moist Deciduous. This occurs in areas with 1000 to 2500 mm of rain. This found in deolapar region as well as Chandrapur and Bhandara and the slopes of Western Ghats that sprayed into Nasik, Thane, Dhulia and Kolhapur districts. The soils in this forest are redish brown and the slopes under fairly high rain fall permit leaching of soils making them poor in time and alkalis. The pH value ranges between six and seven. The most important species in these forests is Teak (*Tectona Grandis*). Infrequently, is found replaced by teak stands planted by forest department. These forests provide timber, are well protected by forest department, and from the principal source of revenue. Teak forests occupy over 11500 sq. km. area which is about 1/5 of the area under forest department. Apart from these species like Tiwas (*Ugeiniadalbergioides*), Khair (*Acacia Catechu*), Shivan (*Gmelina arborea*), Dhawada (*Anogeissus latifolia*), Salai (*Boswellia catechu*), Shivan (*Gmelina arborea*), Salai (*Boswellia Serrata*), Moin (*Lannea grandis*), Rohan (*Soymidafibrifuga*), Babul (*Accasia Arebica*), Palas (*Butea monosperma*), The northern slopes receive heavier rain fall during winter, whereas the southern slopes are virtually devoid of it. Thus in general, north phasing slope with better space rain accordance for more luxuriant vegetation than in south over 80% of the area of deolapar is under forest.

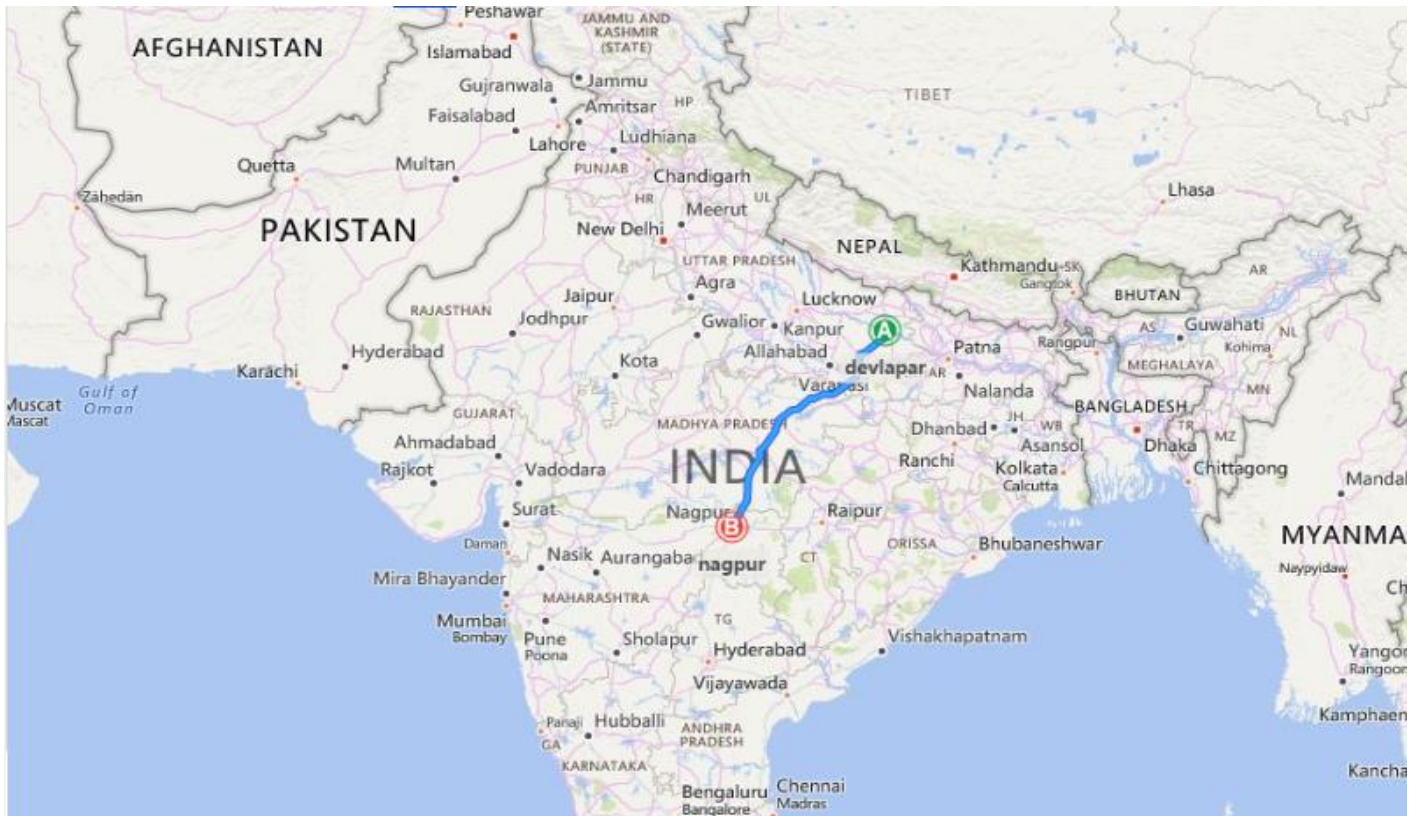


Figure 1: The Study Area of Devlappar

III. SELECTION OF AREA

This paper is an effort to highlight the role of protected area in biodiversity and environment preservation and especially ethnobotanics importance, as a strategic step towards sustainable development. This area includes better health care,

better crops and the use of these life-forms as raw material for industrial growth, which has led to a higher standard of living for the developed world. The diversity of life on Earth is so great that if we use it sustainably we can go on developing new products from biodiversity for many generations.



Fig.1: Ganpat Uike (Gond Vaidu)



Fig.2: Family

IV. SELECTION OF PLANT



Fig.3: Semecarpus Ancardium



Fig.4: Tribuius Terres



Fig.5: Trisalstonia Scholaris



Fig. 6: *Psoralea Coryllifolia*



Fig.7: *Zizphus Mauitiana*



Fig. 8: *Phyllanthus Madraspatensi*



Fig. 9: *vachellia Nilotica*



Fig.10: *Tinospora Cordifolia*



Fig.11: *Morusnigra (Indica)*

A. SEMECARPUS ANCARDIUM

FAMILY:-Anacardiaceae

COMMON NAME: Bibba (Marathi); Bhilawa, Bhallatak (Hindi).

A moderate to large sized deciduous tree attaining height of 12 m -15 m, with large stiff leaves. Leaves crowded at the ends of branches, alternate 20-60 cm long and 10-30 cm broad, obovate/oblong with prominent secondary nerves. The tree is leafless in March- April. Bark 2-5 cm thick, dusky gray, blackish, with irregular quadrangular plates separated by narrow longitudinal furrows.

Part used:

Fruits: Astringent, anti-inflammatory, antitumour. Used in rheumatoid arthritis and for the treatment of tumours and malignant growths. Seeds: It yields bhilawa nut shell liquid used for marking. Bark is astringent in nature. It extruded gum resin used in leprosy infection

B. TRIBUIUS TERRESTRIS

FAMILY:(Zygophyllaceae)

COMMON NAME: Bullhead, bindi

Burra gokhru. widely adapted to grow in dry climate location in which few other plant can survive. Stem radiate from the crown to a diameter of about 10cm(3.9in) to over 1m often branching they are usually prostrate, forming flat patches, through they may grow more upright in shade or among taller plant. Densely hairy leaflet are opposite and up to 3mm long.

Part used:

The fruit are used in herbal medicine .they are collected when they mature and dried for later use in decoration the young shoot and leave can be boiled and used as vegetable. It also used traditionally for nervous disorder, constipation and stimulate the central nervous system and for the treatment some type headache.

C. VACHELLIA NILOTICA

FAMILY:(Fabaceae)

COMMON NAME: is recognized by the following names: Acacia, Acacia Arabica, Babhul - Hindi and Nepalese, Babla - Bengali, Babool Unani, Babool, Babhoola - Sanskrit, Babul, Babul. *A. nilotica* is a plant 5 to 20 m high with a thick spherical crown, stems and branches usually sinister to black colored, grey-pinkish slash, fissured bark, exuding a reddish low quality gum. The plant has straight, light, thin, grey spines in axillary pairs, usually in 3 to 12 pairs, 5 to 7.5 cm long in young trees, mature trees commonly without thorns. The leaves are bipinnate, with 3 to 6 pairs of pinnulae and 10 to 30 pairs of leaflets each, rachis with a gland at the bottom of the last pair of pinnulae. Flowers in globulous heads 1.2 to 1.5 cm in diameter of a bright golden-yellow color set up either axillary or whorly on peduncles 2 to 3 cm long located at the

end of the branches. Pods are strongly constricted, white-grey, hairy and thick

Part used:

The extract of *A. nilotica* is found to stimulate the synthesis and release of prolactin in the female rat and may give a better result for lactating women. *A. nilotica* are used for tanning, dyeing of leather, for gastrointestinal disorders, syphilitic ulcers and toothache. *A. nilotica* pods have reported inhibited HIV-1 induced cytopathogenicity. Fresh roots extract used as narcotic, known as Desisharab (local bear), gum is used as aphrodisiac with water; branches are used for cleaning teeth. Methanolic bark extract of bark has significant inhibitory effects of sudanese medicinal plant extracts on HCV protease. In the end, methanol extracts of bark and pods have considerable inhibitory effects against HIV-1 PR (protease)

D. ALSTONIA SCHOLARIS

FAMILY: (Apocyanaceae),

COMMON NAME: white cheese wood, shaitan wood, pulai, chatiyan wood.

Alstonia scholaris is a medium to large tree, to about 40 m high with somewhat tessellated corky grey to grey-white bark. The boles of large trees are strongly fluted to 10 m. The outer blaze is cream to yellowish in colour with abundant, milky latex that flows rapidly when cut. Leaves in whorls of 4-8 in the upper axils; leaf stalks 1-1.5 cm long, the lamina obovate to elliptical or elliptical-lanceolate, lobes or sparsely hairy, tapering towards the base, 11.5-23 x 4-7.5 cm.

Part used :

The bark for treatment of abdominal pains and fevers, the latex for neuralgia and toothache. In India, the bark is used to treat bowel complaints and has proved a valuable remedy for chronic diarrhea and the advanced stages of dysentery. Leaves used for treating beriberi, dropsy and congested liver.

E. PSORALEA CORYLLIFOLIA

FAMILY: (Fabaceae)

COMMON NAME: hindibavanchi – baschi, Bengali-bavachi, Marathi- bavanchi It is a small, erect, annual herb growing up to 60–120 cm in height throughout sandy, loamy plains of Central and East India. It is found that the seeds contain an essential oil (0.05%), a non volatile terpenoid oil, a dark brown resin (8.6%), and traces of alkaloidal substance. Dymock stated that these seeds contain 13.2% of extractive matter, albumin, sugar, ash 7.4%, and traces of manganese.

Part used:

Psoralea coryllifolia has traditionally been used for the treatment of leucoderma and other skin diseases, pollakiuria, nephritis, asthma, osteoporosis, hypertension and cardiovascular diseases. The active fraction isolated from fruits, seeds and roots possesses antibacterial, antioxidant and immunomodulatory

modulatory properties. Seeds possess greater anthelmintic, diuretic, stomachic, used in leprosy, febrile condition, skin diseases and scorpion or snake bite. Seeds also yield essential oil.

F. ZIZPHUS MAUIATIANA

FAMILY- (Rhamnaceae)

COMMON NAME- ajapriya, kolabadari, iiandai, ber, jujube. *Z. mauritiana* is a fast-growing species. Under favourable conditions, height increment on loose soil is 75 cm in 1 year and 1.2 m in 2 years; growth is straggler by the 3rd season, when under similar growth conditions plants are thick and bushy, up to 1.5 m high. Growth is poor under natural conditions, 5-8 cm high after 1st season and 17-35 cm after 2nd season; *Z. mauritiana* coppice well and grows vigorously from stumps and root suckers. Fruiting starts after 3-5 years and is usually very abundant.

Part used –

fruit used in ayurveda for treating bleeding disorder excessive thirst and fever and anticancer. paste of leaf applied externally to relieve burning sensation and fever. bark used externally to treat visphotaboillabcess and seed used in eye disorder.

G. PHYLLANTHUS MADARASPAT ENSI –

FAMILY: Rhamnaceae

The plant is 0.15-0.9 meters tall, monoecious in nature and glabrous throughout. The stem is usually woody at the base with many branches. The leaves are spiral with oval stipules measuring 1.5-2 mm. The petiole is very short and the leaf blade varies from linear-lanceolate to obovate measuring 10 – 30 mm × 2 - 7 mm.

Part used –

The seeds of *P. maderaspatensis* are used for the treatment of cough, ear ache, inflammations, intestinal spasms, sores, hard swellings, ulcers, stomach ache. The decoctions prepared by the seed of *P. maderaspatensis* are also given in gonorrhoea, internal inflammations dysentery are diarrhoea. stems and leaves of *Phyllanthus maderaspatensis* are used as a hepatoprotective agent, headache, bronchitis, ear ache, ophthalmia, griping, cough, ascites, incipient, blindness, sores, ulcers, stomachache, inflammations, intestinal spasms, gonorrhoea, anti-microbial and viral infections.

H. TINOSPORACORDIFOLIA

Family- (Menispermaceae)

COMMON NAME-

saytuk, whiteberry stem, Root used in Antil infections, Anticancer, antidiabetes, inflammation, Neurological, immunomodulatory, psychiatric conditions.

Part used :

The decoction of plant sap and leaves is full of emetic and purgative activities. In Tanzania the whole plant is pounded and the solution applied for treatment of scabies. A root decoction is taken to cure constipation, diarrhoea, lack of appetite, intestinal pain, menstrual problems, gastrointestinal disorders, testicular swelling, chest complaints and snake bites. The gastrointestinal trouble in infants is usually treated by giving them a root decoction of *Phyllanthus* made raspatnsis and *Chamaecrista mimosoides*.

S. R	BOTANICAL NAME FAMILY	ETHANO PHARMACOLOGICAL USE	PHYTOCHEMICAL CONSTITUENT	PHARMACOLOGICAL ACTIVITY
1	SEMECARPUS ANCARDIUM (Ancardiace)	Applied on stopped women bleeding in mc cycle in age above age of 50	Biflavonide mineral vitamins and amino acid sterol	Hyperglycemic effect, anti carcinogenic activity.
2	TRIBUIUS TERRESTRIS (Zygophyllaceae)	Treatment powder for asthma	Sponin ,glycoside ,resin	Increasing blood pressure and renal perfusion
3	VACHELLIA NILOTICA (Fabaceae)	Treatment of improve heart , and impotence	Cardiac Glycosides Alkaloids, Flavonoids, Sterols, Glycosides, Saponin, Protein & Carbohydrate	Abortifacient and Anti infertility activity,
4	ALSTONIA SCHOLARIS Apocyanaceae	Treatment of malaria	Alkaloids ditamineechitamine	Skin disorder, improve vitities, stimulant ulcer, relieve leprosy
5	PSORALEA CORYLLIFOLIA (Fabaceae)	Treatment of epilepsy	Flavonide coumerin angelicin, bakuchiol	Norepinephrine-dopamine reuptake inhibitor in vitro
6	ZIZPHUS MAUIATIANA (Rhamnaceae)	Treatment Bitingscorpion	Alkaloids, muritine, sapogenine	Ulcer, hypotonic-sedative anxiolytic effect cancer
7	PHYLLANTHUS MADARASPATENSIS (Phyllanthaceae)	Treatment fracture in bone	Resin ,tannins phenolic, saponin hypophyllatin	Laxative, jaundice, headache,
8	TINOSPORA CORDIFOLIA, (Menispermaceae)	Treatment reduce heat in body and typhoid	Berberine, choline, tembertarine, plamatine	Analgesic, anti diarrhoeal ,neuroprotective andotropic effect
9	Morus nigra (indica) (Moraceae)	Treatment of to control sugar and blood pressure	Bioflavonoid, Triterpenes hydroxycinnamic acid esters, 13 flavonol glycosides, and 14 anthocyanins	anti hyperlipidemia, hypertensive ,bacteriostasis and antivirus

Table1: Ethanomedicinal Plant Used in Gond Tribe

V. CONCLUSION

Ethnomedicine is a study or comparison of the traditional medicine practiced by various ethnic groups, and especially by indigenous peoples. The word ethno medicine is sometimes used as a synonym for traditional medicine.

ethno medical research is interdisciplinary; in its study of traditional medicines, it applies the methods of ethnobotany and medical anthropology. Often, the medicine traditions it studies are preserved only by oral tradition.

Scientific ethno medical studies constitute either anthropological research or drug discovery research. Anthropological studies examine the cultural perception and context of a traditional medicine. The purpose of drug discovery research is to identify and develop a marketable pharmaceutical product.

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