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Review Article

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REVIEW ARTICLE ON ETHNOMEDICINAL PLANTS USED BY TRIBES ACROSS INDIA

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ABSTRACT

The rich and diverse cultural heritage of India is reflected in the traditional knowledge and practices of its indigenous tribes, especially in the field of ethnomedicine. This review article aims to explore the medicinal plants that are exclusively used by tribal communities across various ecological zones of India, highlighting their therapeutic potential and conservation status. Tribes residing in different geographical regions, from the Himalayan foothills to the coastal areas and the dense forests of central India, utilize a wide array of plant species for treating various ailments. These plants are integral to the healthcare systems of tribal societies, often serving as the primary source of medicine. The article reviews the ethnobotanical knowledge these plants, examining their traditional and/or of uses pharmacological properties. This review aims to contribute to the documentation of indigenous knowledge, fostering the preservation of tribal traditions and promoting the importance and significance of these plants for modern pharmacology.

KEYWORDS: Ethnomedicinal plants, forests, tribes, traditional medicines, India.

INTRODUCTION

The dependency of human beings on plants is an age-old relationship, which is described as 'ethnobotany'. Ethnobotany comes from the term ethnology, which means the study of culture, so ethnobotany or ethnobiology is a scientific study of plants and human relationship, which shows plants as a primary source of need. Ethnobotany deals with various aspects in

which one of the most popular and common aspect is the study and use of ethnomedicines. Ethnomedicine involves the study of indigenous beliefs, concepts, knowledge, and practices among the groups of tribal and rural people for preventing, curing, and treating diseases. For human existence, since ancient times, especially, the ethnic or tribal community has a great dependence on local flora for medicinal and other purposes.^[1,2] The traditional medicine system represents the indigenous beliefs, skills, and practices of rural and tribal communities based on their experiences to maintain their health.^[3]

Medicinal plants are regarded as the gift of nature to humans. Various parts of medicinal plants, including herbs, shrubs, and trees, are used for curing diseases like neurodegenerative, inflammatory, anthelmintic, diaphoretic, diuretic, etc. According to WHO (World Health Organization), "medicinal plant is a plant, within which one or more of its part contains the substances, which can be further used for various therapeutic purposes, and serves as a precursor for semi- synthesis". [4] Various bioactive compounds of plants called the secondary metabolites are the reason for their medicinal value and include glycosides, tannins, steroids, alkaloids, terpenoids, essential oils, etc. [5]

Traditional medicines play an efficient role in the preparation of herbal drugs for the betterment of people. [6] This system of medicines is used for curing diseases through the employment of agencies and forces of nature. Tribal people have their own system of medicines, which are age-old, and some of which are not documented in the literature. This tradition has been passed on from one generation to the other for treating diseases. The information on medicinal and various other plants comes from the ancient people when they started learning and making use of these traditional plants for various purposes.^[7,8] India has many tribal groups living in different parts of the country, but there are some States and Union Territories (UT) where tribal groups do not reside and they are Haryana (State), Punjab (State), Chandigarh (UT), Delhi (UT) and Puducherry (UT). [9] The term of medicinal plants include various types of plants used in herbalism and some of these plants have medicinal activities. These medicinal plants are considered as a rich resource of ingredients which can be used in drug development and synthesis. Besides that, these plants play a critical role in the development of human cultures around the whole world. Moreover, some plants are considered as important source of nutrition and as a result of that these plants are recommended for their therapeutic values.^[10] Ethnomedicines have made good contributions in the health care system in traditional medicines for the treatment of jaundice since ancient

times. There are two broad categories for the use of medicinal plants; firstly, plants are used traditionally only by local physicians for getting relief from illness, and secondly, the plants are used by pharmaceutical companies for their active ingredients.^[11]

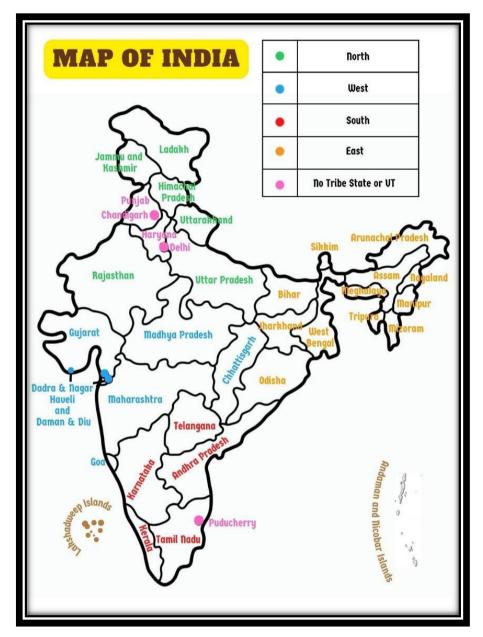


Fig 1: Map of India with North Zone, West Zone, South Zone, East Zone, No Tribe State or Union Territory and Indian Islands written with different colours.

I. LIST OF ETHNOMEDICINAL PLANTS USED BY THE TRIBES LIVING IN NORTH INDIA

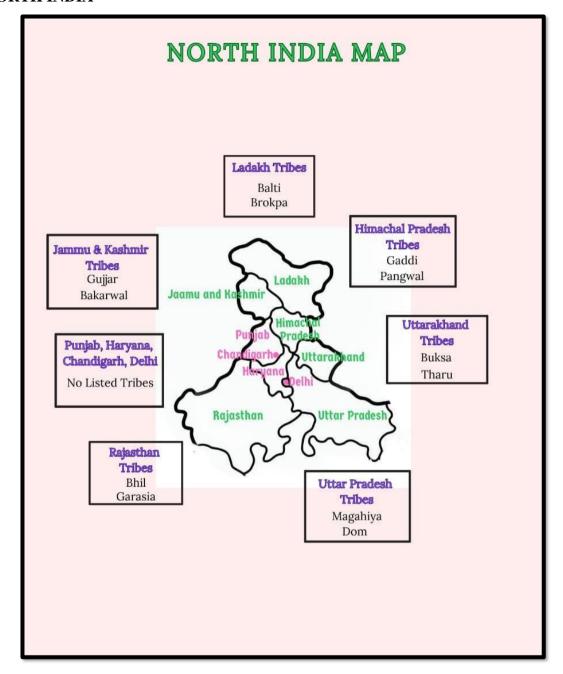


Fig 2: North India Map with the names of Tribal Groups living in the respective State or Union Territory.

Table 1: Enlisting different ethnomedicinal plants used by the tribes living in North India. $^{[12-25]}$

STATE/ UNION TERRI- TORY (UT)	TRIBES	LIVING IN	SCIENTIFIC NAME	COMMON NAME/ FAMILY/HABIT/ CONSERVATION STATUS	PARTS USED	MEDICINAL USES
Jammu and Kashmir (UT)	1. Gujjar	Gulmarg mountain range	i) Centaurea iberica	Iberian knapweed/ Asteraceae/ Shrub/ Not evaluated	Thorns	Skin rashes Wounds
			ii) Malva neglecta	Buttonweed/ Malvaceae/ Herb/ Not evaluated	Leaves	As body tonic, abdominal pain, constipation
	2.	Gulmarg	i) Senecio	Cheerful Senecio/	Flowers	Wounds
	Bakarwal	mountain range	chrysanthe- moides	Asteraceae/ Herb/ Not evaluated	Leaves	Asthma, bronchitis
			ii) Cotula anthemoides	Tuingras/ Asteraceae/ Herb/ Not evaluated	Whole plant	Chilblains, head ache, fever, fracture
Ladakh (UT)	1. Balti	Whole Ladakh	i) Arnebia guttata	Dremok/ Boraginaceae/ Herb/ Not evaluated	Leaves	Hair problems, cough, as blood purifier
					Roots	Cuts, wounds
			ii) Oxytropis microphylla	sTag-sha nagpo/ Fabaceae/ Herb/ Not evaluated	Roots and flowers	Joint pain
	2. Brokpa	Whole Ladakh	i) Anaphalis triplinervis	Yaktso/ Asteraceae/ Herb/ Not evaluated	Whole aerial parts	Epidemic fever, chronic disease, genital problems, wounds
			ii) Meconopsis aculeata	Achay-na numo- mindok/ Papaveraceae/ Herb/ Not evaluated	Leaves, roots, shoots	Headache, ulcer, lung problems, liver problems, pharyngitis
Himachal Pradesh (State)	1. Gaddi	Dhauladhar Range	i) Rumex dentatus	Indian dock/ Polygonaceae/Herb/ Not evaluated	Roots	Treatment against any type of poison
, ,			ii) Trillium govanianum	Nag Chhatri/ Melanthiaceae/ Herb/ Endangered	Dried roots	Menstrual and Reproductive disorders
	2. Pangwal	Pangi Valley,	i) Chaerophyll- um villosum	Hairy Chervil/ Apiaceae/	Tuber	Stomach disorder
		Chamba district		Herb/ Not evaluated	Roots	Carminative property

			ii) Meconopsis aculeata	Blue Poppy/ Papaveraceae/ Herb/ Not evaluated	Flowers Roots	Eye disease Digestion problem
Punjab (State)	No listed tribes	-	i) Pergularia extensa	Dholi dudhi/ Asclepiadaceae/ Vine/ Not evaluated	Fruits and Leaves	Diarrhea, cough, rheumatism, asthma, bronchitis, piles
		-1	ii) Toona ciliata	Toon tree/ Meliaceae/ Tree/ Least Concern	Flowers	As emmenagogue, menstrual disorder
Chandigarh (UT)	No listed tribes	-	i) Crateva adansonii	Barna/ Capparaceae/ Tree/ Least Concern	Barks and Leaves	Calculus, urinary organ infections
			ii) Barleria prionitis	Porcupine flower/ Acanthaceae/ Shrub/	Leaves	Catarrhal infections in
				Least Concern	Roots	children, toothache Boils, glandular swelling
Haryana (State)	No listed tribes	¥	i) Senna occidentalis	Coffee Senna/ Fabaceae/ Shrub/ Least Concern	Leaves	Skin and respiratory problems
		-1	ii) Cuscuta reflexa	Giant dodder/ Convolvulaceae/ Herb/ Least Concern	Whole plant	Wounds, sores, itches, flatulence, diarrhea, fever
Delhi (UT)	No listed tribes	-	i) Alysicarpus bupleurifolius	Sweet Alyce Clover/ Fabaceae/ Herb/ Least Concern	Whole plant	Asthma, bronchitis, pneumonia, rheumatism, fever
		-	ii) Molluga cerviana	Threadstem carpetweed/ Molluginaceae/ Herb/ Not evaluated	Whole plant	Jaundice, oliguria, biliuria, fever, ophthalmalgia, vertigo
Uttarakhand (State)	1. Buksa	Tarai region, Indo-Gangetic Plains	i) Holoptelea integrifolia	Indian elm/ Ulmaceae/ Tree/ Least Concern	Barks	Leucoderma
			ii) Colebrookea oppositifolia	Indian squirrel tail/ Lamiaceae/ Shrub/	Leaves	Wounds
	2. Tharu	Tarai region, Indo-Gangetic Plains	i) Premna latifolia	Least Concern Bombay Presidency/ Verbenaceae/ Tree/ Not evaluated	Stems	Boils, blisters, fungal infections
		_ *************************************	ii) Lygodium flexuosum	Maiden hair/ Schizaeaceae/ Climber/ Not evaluated	Rhizome	Skin diseases

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Rajasthan (State)	1. Bhil	Southern part of Rajasthan	i) Echinops echinatus	Usnakantaka/ Asteraceae/ Herb/ Not evaluated	Roots	During delivery pain for easy delivery, whooping cough
			ii) Soymida febrifuga	Indian Red Wood/ Meliaceae/ Tree/ Least Concern	Barks	Any affected part on the body
	2. Garasia	Southern part of Rajasthan	i) Acanthospe- rmum hispidum	Bristly starbur/ Asteraceae/ Subshrub/ Not evaluated	Leaves	Given to goats to increase milk production
			ii) Dichrostachys cinerea	Sicklebush/ Mimosaceae/ Small tree/ Least Concern	Barks, roots, fruit pods	Fever, diarrhea, pain
Uttar Pradesh (State)	1. Magahiya	Forests of Gorakhpur	i) Ichnocarpus frutescens	Black creeper/ Apocyanaceae/ Shrub/ Not evaluated	Roots	Spermatorrhoea
			ii) Hemigraphis hirta	Vanpoti/ Acanthaceae/ Herb/ Not evaluated	Leaves	Bone fracture
	2. Dom	Forests of Gorakhpur	i) Blumea membranacea	Kukronda/ Asteraceae/ Herb/ Not evaluated	Roots	Stomatitis
			ii) Cordia vestita	Bairola/ Boraginaceae/ Tree/ Data Deficient	Leaves	Cold and cough

II. LIST OF ETHNOMEDICINAL PLANTS USED BY THE TRIBES LIVING IN EAST INDIA

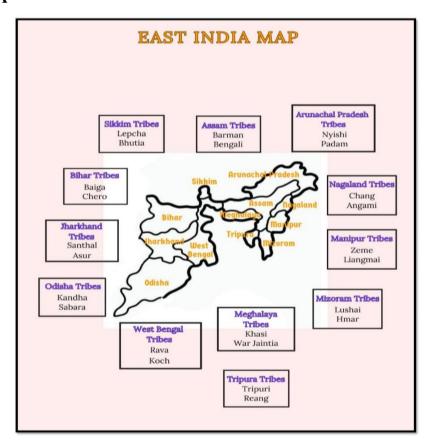


Fig 3: East India Map with the names of Tribal Groups living in the respective State.

Table 2: Enlisting different ethnomedicinal plants used by the tribes living in East India. $^{[12-14,\,26-42]}$

STATE/ UNION TERRIT- ORY (UT)	TRIBES	LIVING IN	SCIENTIF- IC NAME	COMMON NAME/ FAMILY/ HABIT/ CONSERVATION STATUS	PARTS USED	MEDICINAL USES
Bihar (State)	1. Baiga	Rural villages and forest areas of West Champaran district	i) Spatholobus parviflorus	Bando Lata/ Leguminosae/ Woody climber/ Least Concern	Seeds	Fungal infections between toes
			ii) Argyreia bella	Bhakan/ Convolvulaceae/ Climber/ Not evaluated	Leaves	Stomach pain
	2. Chero	Rural villages and forest areas of West Champaran district	i) Artemisia nilagirica	Mugwort/ Compositae/ Shrub/ Not evaluated	Leaves	Body pain, gout pain
			ii) Cyanthillium cinereum	Little Ironweed/ Compositae/ Herb/ Not evaluated	Whole plant	All kinds of piles
Jharkhand (State)	1. Santhal	Angara and Namkum, Ranchi district	i) Tabernaemo- ntana alternifolia ii) Aplectrum	Nag Kuda/ Apocyanaceae/ Small tree/ Not evaluated Putty root/	Leaves Leaves	Wounds Stomach pain,
			hyamale	Orchidaceae/ Herb/ Not evaluated	Leaves	vomiting, loose motion
	2. Asur	Angara and Namkum, Ranchi district	i) Clerodendr- um infortunatum	Hill glory bower/ Lamiaceae/ Shrub/ Not evaluated	Barks	Tuberculosis
			ii) Hardwickia binata	Anjan/ Fabaceae/ Tree/ Least Concern	Seeds	Weakness, burning sensation in urinary tract
West Bengal (State)	1. Rava	Cooch Behar district	i) Drymaria diandra	Tropical chickweed/ Caryophyllaceae/ Herb/ Not evaluated	Leaves	Cough
			ii) Glinus oppositifolius	Jima/ Molluginaceae/ Herb/ Least Concern	Leaves	Diabetes
	2. Koch	Cooch Behar district	i) Scoparia dulcis	Licorice weed/ Scrophulariaceae/ Herb/ Not evaluated	Leaves	Stomach disorder

			ii) Hygrophi- la schulli	Marsh Barbel/ Acanthaceae/ Herb/ Least Concern	Leaves	Anemia
Odisha (State)	1. Kandha	Villages of Kalahandi district	i) Arisaema tortuosum	Whipcord cobra lily/ Araceae/ Herb/ Not evaluated	Corms	Rheumatism, piles
			ii) Millettia extensa	Large Leaf Pongam Creeper/ Fabaceae/ Climber/ Not evaluated	Roots	Piles, dog bite
	2. Sabara	Villages of Kalahandi district	i) Tylophora fasciculata	Brown-Flowered Ipepac/Asclepe- diaceae/ Undershrub or Herb/ Not evaluated	Roots	Fever, body pain, rheumatism, intestinal worms infection
			ii) Capparis zeylanica	Ceylon Caper/ Capparaceae/ Shrub/ Not evaluated	Roots	Scabies, wounds
Sikkim (State)	1. Lepcha	Dzongu valley,North district	i) Aesandra butyracea	Indian Butter Tree/ Sapotaceae/ Tree/ Not evaluated	Fruits	Juice applied on body to soften skin
			ii) Evodia fraxinifolia	Khanakpa/ Rutaceae/ Tree/ Not evaluated	Fruits	Giddiness, indigestion
	2. Bhutia	Villages of East Sikkim	i) Pteris biaurita	Thinleaf brake/ Pteridaceae/ Herb/ Not evaluated	Stems and leaves	Cuts, wounds
			ii) Lindera neesiana	Narik/ Lauraceae/ Tree/ Least Concern	Fruits	Stomachache
Assam (State)	1. Barman	Tribal villages of Cachar district	i) Phlogaca- nthus tubiflorus	Alubabui/ Acanthaceae/ Shrub/ Not evaluated	Leaves	Cough
		usuret	ii) Urena lobata	Caesarweed/ Malvaceae/ Shrub or subshrub/ Least Concern	Roots	Rheumatic pain
	2. Bengali	Tribal villages of Cachar district	i) Globba multiflora	Many-flowered swan flower/ Zingiberaceae/ Herb/	Rhizome	Cuts, wounds, swelling, headache
			ii) Lippia geminata	Least Concern Bushy lippie/ Verbenaceae/ Shrub/ Not evaluated	Leaves	Cuts, wounds
Arunachal Pradesh (State)	1. Nyishi	Puchigeko & Daporijo circle of Upper Subansiri	i) Thalictrum foliolosum	Leafy Meadow- Rue/ Ranunculaceae/ Shrub/	Roots	Fever, eye disorder

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	2. Padam	East, West and Upper Siang district	ii) Mastersia assamica i) Dioscorea floribunda ii) Piper brachystach- yum	Not evaluated Rem, Rading/ Fabaceae/ Climber/ Not evaluated Mule's hoof/ Dioscoreaceae/ Climber/ Not evaluated Hill pepper/ Piperaceae/ Climber/ Not evaluated	Stems Tuber Whole plant Leaves	Cuts, wounds As vitalizer Rheumatism Cough, bronchitis
Nagaland (State)	1. Chang	Noksen, Litem, Tuensang, Helipong villages, Tuensang district	i) Elsholtzia blanda	Pleasant Himalayana Mint/ Lamiaceae/ Herb/ Not evaluated	Leaves	Kidney and bladder disorder, diabetes, hypertension
			ii) Pouzolzia viminea	Red-Stem Pouzolz's Bush/ Urticaceae/ Shrub/ Not evaluated	Roots and leaves	Skin infection, wound
	2. Angami	Khonoma village	i) Blumea lacera	Lettuce-Leaf Blumea/ Asteraceae/ Herb/ Not evaluated	Whole plant	Bruises
			ii) Cyathocline purpurea	Gangotra/ Compositae/ Herb/ Least Concern	Leaves and stems	Gastric problems
Manipur (State)	1. Zeme	Villages of Tamenlong district	i) Lasianthus cyanocarpus	Chingbanam/ Rubiaceae/ Shrub/ Not evaluated	Leaves	Stomachic, gastritis undefined illness with body pain
			ii) Pericampyl- us glaucus	N'giekukak/ Menispermaceae/ Climber/ Not evaluated	Roots	Painful delivery
	2. Liangmai	Villages of Tamenlong district	i) Meriandra dianthera	Aluk Buan/ Lamiaceae/ Shrub/ Not evaluated	Leaves	Stomachic, cough
			ii) Pouzolzia sanguinea	Red-Stem Pouzolz's Bush/ Urticaceae/ Shrub/ Not evaluated	Leaves	Toothache
Mizoram (State)	1. Lushai	Various villages of the Aizawl, Mamit, Lunglei, Lawngtlai, and Saiha districts	i) Cirsium shansiense	Lenhling/ Asteraceae/ Herb/ Not evaluated	Roots	Wounds, stomach ulcer, haemorrhage

	2. Hmar	Various villages of the Aizawl, Mamit, Lunglei, Lawngtlai, and Saiha districts	ii) Zanonia indica i) Terminalia phillyreifolia	Chirpot/ Cucurbitaceae/ Climbing shrub/ Not evaluated Buttontree/ Combretaceae/ Tree/ Least Concern	Fruits Barks	Stomachache, ulcer, asthma Diarrhea, stomach ulcer
		usureis	ii) Ruehssia macrophylla	Ankhapui/ Apocynaceae/ Tree/ Not evaluated	Leaves, stem	Stomachache, hypertension
Tripura (State)	1. Tripuri	Hilly dense forest areas of West district	i) Sterculia villosa	Hairy Sterculia/ Sterculiaceae/ Tree/ Least Concern	Petiole	Seminal weakness
			ii) Neptunia prostrata	Water Sensitive Plant/ Mimosaceae/ Herb/ Not evaluated	Young shoot	Gastritis, acidity, constipation
	2. Reang	Different villages of North Tripura, Dhalai, West Tripura and South Tripura district	i) Merremia umbellata	Hogvine/ Convolvulaceae/ Climbing herb/ Not evaluated	Leaves	Dysentery
			ii) Anacolosa ilicoides	Musafama/ Olacaceae/ Tree/ Least Concern	Leaves	Cuts, wounds
Meghalaya (State)	1. Khasi	Nongkhyllem Wildlife Sanctuary	i) Combretum Acumina tum	No common name/ Combretaceae/ Climber/ Not evaluated	Roots	Tapeworm infection
			ii) Engelhardtia spicata	Mauwa/ Juglandaceae/ Tree/ Least Concern	Barks	Used in medicine
	2. War Jaintia	Nongtalang Village, West Jaintia Hills	i) Zanthoxylum khasianum	Khasi Yellow- Wood/ Rutaceae/ Shrub or tree/ Not evaluated	Fruits	Cough, cold, fever
			ii) Sarcochl- amys pulcherrima	Dogal Tree/ Urticaceae/ Tree/ Not evaluated	Leaves	Cuts, wounds, blood clot

III. LIST OF ETHNOMEDICINAL PLANTS USED BY THE TRIBES LIVING IN SOUTH INDIA

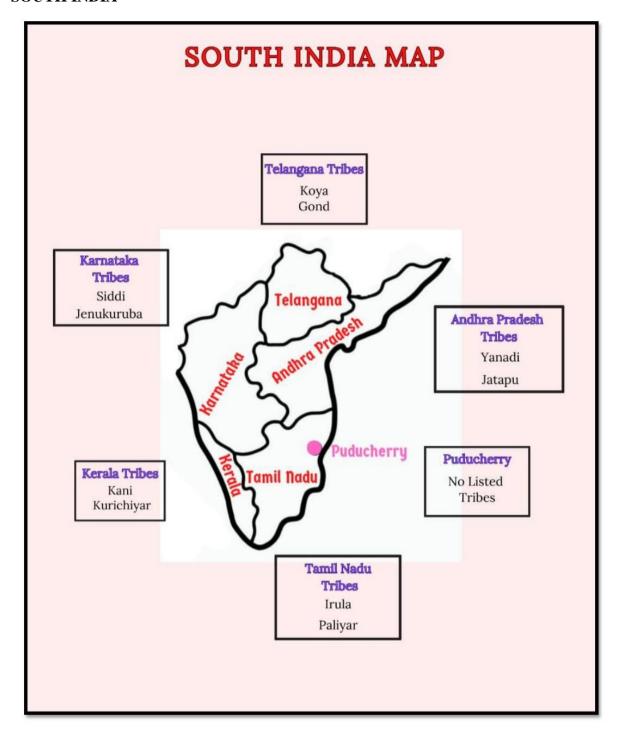


Fig 4: South India Map with the names of Tribal Groups living in the respective State or Union Territory.

Table 3: Enlisting different ethnomedicinal plants used by the tribes living in South India. $^{[12-14,\,43-52]}$

STATE/ UNION TERRIT- ORY (UT)	TRIBES	LIVING IN	SCIENTIFIC NAME	COMMON NAME/ FAMILY/ HABIT/ CONSERVATION STATUS	PARTS USED	MEDICINAL USES
Karnataka (State)	1. Siddi tribe	Supa, Mundgod, Haliyal and Yellapur Taluka, Uttara Kannada district	i) Acanthus ilicifolius	Sea Holly/ Acanthaceae/ Sprawling herb to shrub/ Least Concern	Leaves	Skin diseases, inflammatory pustules
			ii) Holigarna ferruginea	Black Varnish Tree/ Anacardiaceae/ Tree/ Not evaluated	Whole plant	Cuts, wounds
	2. Jenukur-	Tribal villages	i) Blainvillea	Para Cress Flower/	Leaves	Cuts
	uba	of Mysore and Coorg district	acmella	Asteraceae/ Herb/ Not evaluated	Seeds	Post-natal complaints
			ii) Hackeloc- hloa granularis	Pitsacle Grass/ Poaceae/ Grass/ Not evaluated	Whole plant	Bruises
Kerala (State)	1. Kani	oodam peak	i) Naravelia zeylanica	Ceylon Clematis/ Ranunculaceae/ Climbing shrub/ Not evaluated	Stems	Rhinitis
			ii) Leea sambucina	Bandicoot Berry/ Vitaceae/ Large shrub/ Not evaluated	Leaves	Dysentery with blood discharge
	2. Kurichiyar	Hilly areas of hiyar Wayanad district	i) Bridelia scandens	Climbing Bridelia/ Euphorbiaceae/ Climbing shrub/ Not evaluated	Barks	Cough, asthma
			ii) Pimpinella monoica	Wallich Hogweed/ Apiaceae/ Herb/ Not evaluated	Seeds	Stomachache
Tamil Nadu (State)	1. Irula	Rural areas in forests or on forest edges of Northeastern districts	i) Rostellularia diffusa	Spreading Diffusa/ Acanthaceae/ Herb/ Not evaluated	Whole plant	Dermatological disorders
			ii) Lannea coromandelica	Indian Ash Tree/ Anacardiaceae/ Tree/ Least Concern	Whole plant	Orthopedic disorders, Ophthalmolog- ical disorders

	2. Paliyar	Palni hills, South Western Ghats	i) Pterolobium hexapetalum ii) Syzygium lineare	Indian Redwing/ Fabaceae/ Shrub/ Not evaluated Spicate Eugenia/ Myrtaceae/ Tree/ Not evaluated	Leaves Fruits	As tonic to reduce delivery pain As diuretic, stomachic, tonic
Andhra Pradesh (State)	1. Yanadi	Chandragiri Reserve Forest Area	i) Androgra- phis serpyllifolia	Roundleaf Chiretta/ Acanthaceae/ Herb/ Not evaluated	Roots	Stomachache
			ii) Pachygone ovata	Fish berry/ Menispermaceae/ Climber/ Not evaluated	Leaves	Cuts, boils
	2. Jatapu	Parvathipuram Manyam district	i) Blumea bifoliata	No common Name/ Asteraceae/ Herb/	Leaves	Skin diseases
			ii) Canthium dicoccum	Not evaluated Ceylon Boxwood/ Rubiaceae/ Tree/ Least Concern	Barks	Fever
Telangana (State)	1. Koya	Malluru Hill Region and around villages of Mangapet Mandal of Warangal district	i) Dendrophthoe falcata	Honey Suckle Mistletoe/ Loranthaceae/ Shrub/ Not evaluated	Stems	Menstrual troubles
			ii) Lepidagathis cristata	Crested Lepidagathis/ Acanthaceae/ Herb/ Not evaluated	Leaves	Wounds
	2. Gond	Kawal Wildlife Sanctuary	i) Anisomeles indica	Catmint/ Lamiaceae/ Herb/ Not evaluated	Leaves	Ephemeral fever
			ii) Capparis sepiaria	Wild Caper Bush/ Capparaceae/ Climber/ Least Concern	Stem barks, fruits	As contraceptive, rheumatism
Puducherry (UT)	No listed tribes		i) Cynodon dactylon	Scutch grass/ Poaceae/ Herb/ Not evaluated	Leaves	Menstrual problems
			ii) Ficus religiosa	Sacred fig/ Moraceae/ Tree/ Least Concern	Barks	Mouth ulcer, gingivitis

IV. LIST OF ETHNOMEDICINAL PLANTS USED BY THE TRIBES LIVING IN WEST INDIA

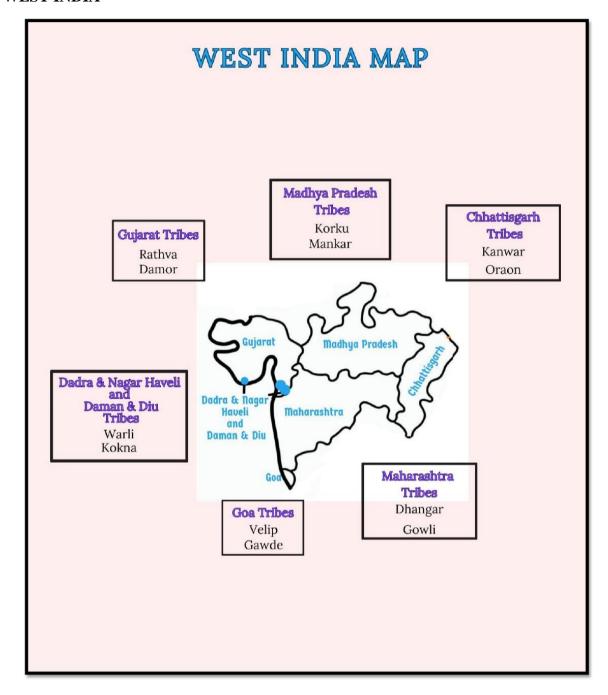


Fig 5: West India Map with the names of Tribal Groups living in the respective State.

Table 4: Enlisting different ethnomedicinal plants used by the tribes living in West India. $^{[12-14,\,53-60]}$

STATE/ UNION TERRIT- ORY (UT)	TRIBES	LIVING IN	SCIENTIFIC NAME	COMMON NAME/ FAMILY/ HABIT/ CONSERVATION STATUS	PARTS USED	MEDICINAL USES
Gujarat (State)	1. Rathva	Godhra taluka, Panchmahal district	i) Grangea maderaspa- tana	Madras Carpet/ Asteraceae/ Herb/ Least Concern	Leaves	Boils, ulcer
			ii) Anogeissus sericea	Dhao/ Combretaceae/ Large shrub or small tree/ Not evaluated	Barks, leaves	Fever
	2. Damor	Godhra taluka, Panchmahal district	i) Enicostema hyssopifoli-um	Indian Whitehead/ Gentianaceae/ Herb/ Not evaluated	Leaves	Fever
			ii) Maytenus emarginata	Thomy Staff Tree/ Celastraceae/ Large shrub or small tree/ Not evaluated	Leaves	Jaundice
Madhya Pradesh (State)	1. Korku	. Korku East Nimar Region	i) Barleria montana	Mountain Barleria/ Acanthaceae/ Herb/ Not evaluated	Roots	Rheumatism, joints pain
			ii) Canscora diffusa	Spreading Canscora/ Gentianaceae/ Herb/ Not evaluated		Nervous debility Inflammation
	2. Mankar	East Nimar Region	i) Echinops echinatus	Indian Globe Thistle /Acanthaceae/ Herb/ Not evaluated	Roots	Cough, cold, easy delivery of child
			ii) Grewia pilosa	Nagbala Crossberry/ Tiliaceae/ Shrub or small tree/ Not evaluated	Roots	Excess discharge of semen with urine
Chhattisgarh (State)	1. Kanwar	Villages of Pharsabahar and Bagicha block, Jashpur district	i) Litsea monopetala	Many-Flowered Litsea/ Lauraceae/ Tree/ Least Concern	Barks	Swelling
			ii) Strobilan- thes heyneanus	Karun Kurinji/ Acanthacae/ Undershrub/	Seeds	Stomach pain of animals
	2. Oraon	Villages of Sarguja distrct	i) Kirganelia reticulata	Not evaluated Black-Honey Shrub/ Euphorbiaceae/ Shrub/ Not evaluated	Fruits	Inflammation, diseases of blood
			ii) Ficus	Drooping Fig/	Fruits	Headache,

			semicordata	Moraceae/ Tree/ Least Concern		constipation
Maharashtra (State)	1. Dhangar	Purandhar region	i) Ceropegia oculata	Peacock Ceropegia/ Apocynaceae/ Herb/ Not evaluated	Leaves	Conjunctivitis
			ii) Frerea indica	Indian Frerea/ Apocynaceae/ Succulent herb/ Not evaluated	Leaves	Promotes hair growth
	2. Gowli	Purandhar region	i) Iphigenia pallida	Pale Grass Lily/ Cholchicaceae/ Grass like herb/ Not evaluated	Leaves	Perforation of eardrum
			ii) Sida mysorensis	Mysore Fanpetals/ Malvaceae/ Shrubby herb/ Not evaluated	Leaves	Wounds
Goa (State)	1. Velip	Rural areas of Goa	i) Wagatea spicata	Candy Corn Plant/ Caesalpiniaceae/ Climbing shrub/ Not evaluated	Leaves	Insect bite
			ii) Anethum graveolens	Dill/ Apiaceae/ Herb/ Not evaluated	Leaves	Loss of appetite
	2. Gawde	Rural areas of Goa	i) Tabernae- montana orientalis	Banana Bush/ Apocynaceae/ Large shrub or small tree/ Not evaluated	Roots	Toothache
			ii) Amorpho- phallus paeoniifolius	Elephant Foot Yam/ Araceae/ Herb/ Least Concern	Rhizomes	Stomachache
Dadra & Nagar Haveli and Daman & Diu (UT)	1. Warli	Silvassa	i) Ficus exasperata	Sandpaper tree/ Moraceae/ Tree/ Least Concern	Barks	Promote fertility in women
(01)			ii) Lagerstroe- mia parviflora	Small Flowered Crape Myrtle/ Lythraceae/ Tree/ Least Concern	Barks	Skin diseases, scabies
	2. Kokna	Silvassa	i) Embelia tsjeriam- cottam	Malabar Embelia/ Myrsinaceae/ Shrub/ Not evaluated	Roots	Headache, cough
			ii) Paracalyx scariosus	Indian Husk-Pea/ Fabaceae/ Climber/ Not evaluated	Roots	Jaundice, cough, bone fracture

V. LIST OF ETHNOMEDICINAL PLANTS USED BY THE TRIBES LIVING ON THE ISLANDS OF INDIA

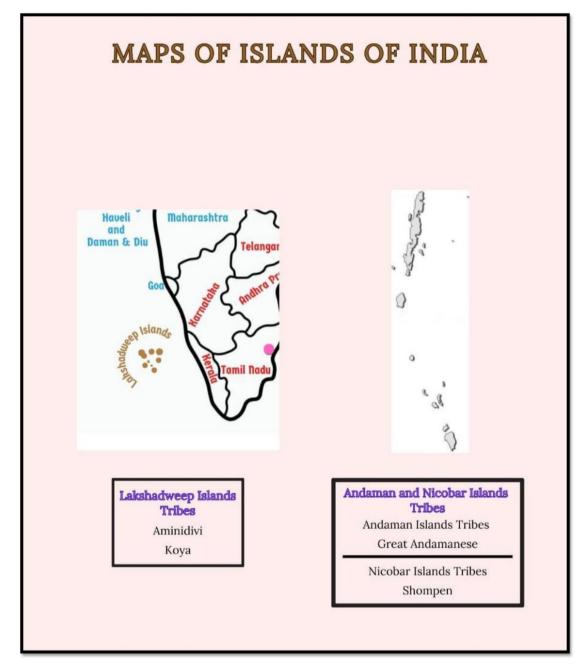


Fig 6: Indian Islands Map with the names of Tribal Groups living in the respective Islands.

Table 5: Enlisting different ethnomedicinal plants used by the tribes living in the Islands of India. [12-14, 61-63]

ISLANDS	TRIBES	LIVING IN	SCIENTIF- IC NAME	COMMON NAME/ FAMILY/ HABIT/ CONSERVATION STATUS	PARTS USED	MEDICINAL USES
Lakshadw- eep Islands (UT)	1. Aminidivi	Amini Islands	i) Colubrina asiatica	Latherleaf/ Rhamnaceae/ Shrub/ Least Concern	Leaves	Inflammation
			ii) Tournefortia argentea	Tree heliotrope/ Boraginaceae/ Tree/ Least Concern	Roots	Repel insects, snakes and other harmful organisms
	2. Koya	Kalpeni, Androth and Kavaratti Islands	i) Cassytha filiformis	Love Vine/ Lauraceae/ Vine/ Not evaluated	Whole plant	Scabies, other skin disorders
			ii) Oldenlandia biflora	Two Flower Slender Petal/ Rubiaceae/ Herb/ Not evaluated	Leaves	Eye diseases
Andaman and Nicobar Islands (UT)	1. Great Andaman- ese	Andaman Islands	i) Strobilan- thes andamanen- sis	Andaman Coneflower/ Acanthaceae/ Herb/ Not evaluated	Leaves	Blood in urine, asthma, cough, bronchial complaints,
			ii) Dichapet- alum gelonioides	Gelonium poison-leaf/ Dichapetalaceae/ Large shrub or small tree/ Least Concern	Leaves	Asthma, cough, fever
	2. Shompen	Nicobar Islands	i) Semecarpus kurzii ii) Orophea katschallica	Pep, Jugane/ Anacardiaceae/ Tree/ Endangered Tapilei-alo, Tonyoge/ Annonaceae/ Tree/ Endemic	Leaves, seeds, fruits Leaves	Injury, malaria fever, allergy, blisters Body ache

CONCLUSION

Ethnomedicinal plants hold profound significance for the tribes residing in the forests or hilly regions or rural areas or villages of India, serving as invaluable resources for their healthcare needs. Across generations, these indigenous communities have meticulously documented and passed down traditional knowledge about the medicinal properties of plants, forming the cornerstone of their healthcare practices.

The use of ethnomedicinal plants reflects a deep connection between these tribes and their natural surroundings, as they rely on the rich biodiversity of the forests or hilly regions or rural areas or villages for their well-being. Through centuries of observation and

experimentation, they have identified a diverse array of plants with therapeutic properties, each tailored to address specific ailments and conditions. Furthermore, the utilization of ethnomedicinal plants underscores the holistic approach to health prevalent in these tribal societies. Rather than focusing solely on symptomatic relief, the traditional healing practices emphasize the interconnectedness of the body, mind, and environment, striving for balance and harmony in all aspects of life. However, as modernization and external influences encroach upon these traditional ways of life, there is a risk of losing this invaluable knowledge. Efforts must be made to preserve and respect the indigenous wisdom of these tribes, recognizing the importance of ethnomedicinal plants not only as sources of healing but also as repositories of cultural heritage and biodiversity. In conclusion, the ethnomedicinal plants used by the tribes of India represent a living testament to the profound relationship between humans and nature.

Their continued preservation and acknowledgment not only contribute to the health and well-being of these indigenous communities but also offer valuable insights into sustainable healthcare practices and biodiversity conservation for the broader society.

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REFERENCES

- 1. Thakur, K.; Bassi, K.; Sood, K. Textbook of Ethnobotany; S. Dinesh & Co.: Jalandhar, India, 2015; 1–70.
- 2. Abu-Rabia, A. Urinary diseases and ethnobotany among pastoral nomads in the Middle East. J. Ethnobiol, 2005; 1: 1–3.
- 3. Sharma, J.; Gairola, S.; Gaur, R.D.; Painuli, R.M. The treatment of jaundice with medicinal plants in indigenous communities of the sub-Himalayan region of Uttarakhand, India. J. Ethnopharmacol, 2012; 143: 262–291.
- 4. Suriyavathana, M.; Jeevitha, M.; Aranganathan, J. In vitro antioxidant profile of Justicia tranquebariensis. Int. J. Pharm. Sci., 2011; 4: 4259–4261.
- 5. Yadav, R.S.; Agarwala, M. Phytochemical analysis of some medicinal plants. J. Phytol., 2011; 3: 10–14.
- 6. Negi, P.S.; Subramani, S.P. Ethnobotanical study in the village Chhitkul of Sangla valley,

- district Kinnaur, Himachal Pradesh. J. Non-Timber For. Prod., 2002; 9: 113–120.
- 7. Birhane, E.; Aynekulu, E.; Mekuria, W.; Endale, D. Management, use and ecology of medicinal plants in the degraded dry lands of Tigray, Northern Ethiopia. J. Med. Plants Res., 2011; 5: 308–319.
- 8. Mesfin, K.; Tekle, G.; Tesfay, T. Ethnobotanical study of traditional medicinal plants used by indigenous people of Gemad district, Northern Ethiopia. J. Med. Plants, 2013; 1: 32–37.
- 9. Rural Health Statistics, 2017, M/o Health & Family Welfare.
- 10. Bassam A. Clinical Pharmacy Discipline, School of Pharmaceutical Sciences, University of Sains Malaysia. Pharmaceut Anal Acta, 2012; 3: 10.
- 11. Baqar, S.R. Text Book of Economic Botany; Ferozsons Ltd.: Rawalpindi, Pakistan, 2001; 23–100.
- 12. IUCN Red List version 2022-1: Table 7.
- 13. Flowers of India. Retrieved August 23, 2016, from http://www.flowersofindia.net [For common name and habit of some plants]
- 14. Missouri Botanical Garden Plant Finder, http://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx [For common name and habit of some plants]
- 15. Jan, M.; Mir, T.A.; Ganie, A.; Khare, R.K. Ethnomedicinal use of some plant species by Gujjar and Bakerwal community in Gulmarg Mountainous Region of Kashmir Himalaya. J. Ethnobot, 2021; 21(38): 1-23.
- 16. Hadi, A.; Singh, S.; Ali, S.; Mehdi, M. Traditional Uses of Medicinal Plants by Indigenous Tribes of Ladakh Union Territory. Res. Jr. of Agril. Sci., 2022; 13: 068-077.
- 17. Rani, S.; Rana, J.C.; Rana, P.K. Ethnomedicinal plants of Chamba district, Himachal Pradesh, India. J. Med. Plants Res, 2013; 7(42): 3147-3157.
- 18. Dutt, B.; Nath, D.; Chauhan. N.S.; Sharma, K.R.; Sharma, S.S. Ethno-medicinal Plant Resouces of Tribal Pangi Valley in District Chamba, Himachal Pradesh, India. Int. J. Bioresour. & Stress Manage, 2014; 5(3): 16-421.
- 19. Gajarmal, A.A.; Mane, S.S.; Rath, S. Ayurveda Herbs in the flora of Punjab (India) with Special Reference to Bhavprakasha Nighantu- A Review. J. Phytopharmacol, 2020; 9(1): 67-75.
- 20. Dr. Kumar, M. Medicinal Plants of Chandigarh, Department of Forests & Wildlife, Chandigarh, 2024.
- 21. Singh, B.; Singh, J. Ethnobotanical uses of some from central Haryana, India.,

- Phytodiversity, 2014; 1(1&2): 7-24.
- 22. Pandey, A.; Singh, S. Ethno-botanical evidences of common wild medicinal herbs existing on Delhi Ridge: A Checklist. J. Med. Plants Studies, 2017; 5(5): 46-60.
- 23. Pandey, G.; Verma, K.K.; Kumar, S.; Singh, M. Traditional phytotherapy of some medicinal plants used by Tharu and Buxa tribes of Uttarakhand used in skin diseases. Int. J. Med. Plants Res., 2012; 1(5): 055-057.
- 24. Meena, K.L.; Yadav, B.L. Some ethnomedicinal plants of Southern Rajasthan. Indian J. Trad. Knowl, 2010; 9(1): 169-172.
- 25. V.K. Singh, Zaheer Anwar Ali & M.K. Siddiqui (1997) Medicinal Plants Used by the Forest Ethnics of Gorakhpur District (Uttar Pradesh), India, International Journal of Pharmacognosy, 35(3): 194-206.
- 26. Singh H., M. Mishra & P. A. Dhole (2020) Ethnomedicinal Plants Used by the Tribal Communities of West Champaran District of Bihar, India. Pla. Sci, 2020; 03(04): 38-44.
- 27. Suman, K.K.; Abbas, S.G.; Kumar, K.; Singh, B.K.; Oraon, P.R. Identification and Documentation of Ethnomedicinal Plants Used by Tribal People of Ranchi District, Jharkhand. Bull. Env. Pharmacol. Life Sci., 2019; 8(11): 78-87.
- 28. Datta, T.; Patra, A.K.; Dastidar, S.G. Medicinal plants used by tribal population of Coochbehar district, West Bengal, India-an ethnobotanical survey. Asian Pac. J, Trop. Biomed., 2014; 4(1): S478-S482.
- 29. Panda, T.; Padhy, R.N. Ethnomedicinal plants used by tribes of Kalahandi district, Orissa. Indian J. Trad. Knowl., 2008; 7(2): 242-249.
- 30. Pradhan, B.K.; Badola, H.K. Ethnomedicinal plant use by Lepcha tribe of Dzongu valley, bordering Khangchendzonga Biosphere Reserve, in North Sikkim, India. J. Ethnobiol. Ethnomed., 2008; 4: 22.
- 31. Lepcha, T.T.; Pradhan, P.; Gaira, K.S.; Badola, H.K.; Shahid, M.; Singh, M. Ethnomedicinal Use of Plants by Bhutia Tribe in Sikkim Himalaya. Proceedings of the Ist Himalayan Researchers Consortium, volume 1. Almora: National Mission on Himalayan Studies (NMHS), GB Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD), 71-78.
- 32. Das, A.K.; Dutta, B.K.; Sharma, G.D. Medicinal plants used by different tribes of Cachar district, Assam. Indian J. Trad. Knowl., 2008; 7(3): 446-454.
- 33. Murtem, G.; Chaudhry, P. An Ethnobotanical Study of Medicinal Plants Used by the Tribes in Upper Subansiri District of Arunachal Pradesh, India. J. Ethnomedicine. American J. Ethnomed., 2016; 3: 035-049.

- 34. Khongsai, M.; Saikia, S.P.; Kayang, H. Ethnomedicinal plants used by different tribes of Arunachal Pradesh. Indian J. Trad. Knowl., 2011; 10(3): 541-546.
- 35. K. HanakoJamir; Kruolalie, Tsurho. Documentation of medicinal plants and its uses by Chang tribe in Tuensang District, Nagaland. J. Med. Plants Studies, 2017; 5(4): 170-174.
- 36. Chase, P.; Singh, O.P. ETHNOMEDICINAL PLANTS USED BY ANGAMI TRIBE Of NAGALAND, INDIA. Indian J. Trop. Biodiv., 2013; 21(1&2): 29-42.
- 37. Panmei, R.; Gajurel, P.R.; Singh, B. Ethnobotany of medicinal plants used by the Zeliangrong ethnic group of Manipur, northeast India. J. Ethnopharmacol., 2019; 235: 164-182.
- 38. Ralte, L.; Singh, Y.T. Ethnobotanical survey of medicinal plants used by various ethnic tribes of Mizoram, India. PLOS ONE, 2024; 19(5): e0302792.
- 39. Das, H.B.; Majumdar, K.; Datta, B.K.; Ray, D. Ethnobotanical uses of some plants by Tripuri and Reang tribes of Tripura. Nat. Prod. Radiance, 2009; 8(2): 172-180.
- 40. Shil, S.; Choudhury, M.D.; Das, S. Indigenous knowledge of medicinal plants used by the Reang tribe of Tripura state of India. J. Ethnopharmacol., 2014; 152: 135-141.
- 41. Bhuyan, S.I.; Laskar, I. TRADITIONAL USES OF PLANT RESOURCES BY KHASI TRIBES IN NONGKHYLLEM WILDLIFE SANCTUARY, MEGHALAYA, INDIA. J. Applied & Fundamental Sci., 2021; 7(1): 64-72.
- 42. Myrchiang, R.; Lamare, E.; Singh, O.P. ETHNO-MEDICINAL PLANTS IN NONGTALANG, MEGHALAYA: THEIR USES AND THREATS. ENVIS Bull. Himalayan Ecol., 2018; 26: 75-82.
- 43. Bhandary, M.J.; Chandrashekar, K.R.; Kaveriappa, K.M. Medical ethnobotany of the Siddis of Uttara Kannada district, Karnataka, India. J. Ethnopharmacol., 1995; 49: 149-158.
- 44. Kshirsagar, R.D.; Singh, N.P. Some less known ethnomedicinal uses from Mysore and Coorg districts, Karnataka state, India. J. Ethnopharmacol., 2001; 75: 231-238.
- 45. Purushothaman, T.; K. Irfana Mol. Ethnobotanical Medicines Used by the Kani and Kurichiyar Tribal Communities of Kerala. Shanlax Int. J. Arts, Sci. & Humanities, 2020; 8(1): 191-199.
- 46. Jeevith, S.; Aswathi, C.R.; Samydurai, P.; Saradha, M.; Nagaraj, K. Ethnomedicinal plants used by Irula tribe in Tamil Nadu, India: A review. Annales Universitatis Paedagogicae Cracoviensis, 2023; 8: 213-252.
- 47. Duraipandiyan, V.; Ayyanar, M.; Ignacimuthu, S. Antimicrobial activity of some ethnomedicinal plants used by Paliyar tribe from Tamil Nadu, India. BMC

- Complementary and Alternative Medicine, 2006; 6: 35-41.
- 48. Savithramma, N.; Yugandhar, P.; Prasad, K.S.; Ankanna, S.; Chetty, K.M. Ethnomedicinal studies on plants used by Yanadi tribe of Chandragiri reserve forest area, Chittoor District, Andhra Pradesh, India. J. Intercult. Ethnopharmacol., 2016; 5(1): 49-56.
- 49. Chandra Shekhar, P.; Padmaja, V.; Chandra mouli, B.; PadalSalugu, B. Ethnomedicinal plants used by primitive tribes of Parvathipuram Manyam District, Andhra Pradesh, India. World Journal of Biology Pharmacy and Health Sciences, 2023; 13(02): 203-209.
- 50. Medisetti, N.; Mustafa Md. AN ETHNOBOTANICAL STUDY OF MEDICINAL PLANTS USED BY KOYA TRIBES IN AND AROUND MALLURU HILL REGION, WARANGAL DISTRICT, TELANGANA, INDIA. International Journal of Applied Biology and Pharmaceutical Technology, 2016; 7(2): 103-114.
- 51. Adepu Chandra Mohan, Sateesh Suthari and Ajmeera Ragan. Ethnomedicinal plants of Kawal Wildlife Sanctuary, Telangana, India. Annals of Plant Sciences 6.02 (2017): 1537-1542.
- 52. J Rajamurugan, L Srineevasan, I Govindasamy, S Sathishkumar, P Priyanka and D Mohandass. Documentation of traditional knowledge on medicinal plants of Thirukkanur village, Puducherry region, India. J. Med. Plants Studies, 2016; 4(5): 44-49.
- 53. Gadhvi, K.J.; Modi, N.R. Traditional ethnomedicinal plants used by tribal communities in Godhra forest, Gujarat, India. Tropical Plant Research, 2019; 6(3): 506-513.
- 54. Ray, S.; Sheikh, M.; Mishra, S. Ethnomedicinal plants used by tribals of East Nimar region, Madhya Pradesh. Indian J. Trad. Knowl., 2011; 10(2): 367-371.
- 55. Painkra, V.K.; Jhariya, M.K.; Raj, A. Assessment of knowledge of medicinal plants and their use in tribal region of Jashpur district of Chhattisgarh, India. J. Appl. & Nat. Sci., 2015; 7(1): 434-442.
- 56. Panda, A.K.; Lakra, S.; Kumar, A.; Kerketta, A.; Mishra, R.; Panda, K.K.; Bisht, S.S.; Sushma. Folklore use of wild fruits by the Oraon tribe of Sarguja district of Chhattisgarh, India. *Ethnobotany Research and Applications*, 2022; 24: 1–16.
- 57. Bhosle, S.V.; Ghule, V.P.; Aundhe, D.J.; Jagtap, S.D. Ethnomedical Knowledge of Plants used by the Tribal people of Purandhar in Maharashtra, India. Ethnobotanical Leaflets, 2009; 13: 1353-1361.
- 58. Sawant, A.S.; Rodrigues, B.F. Documentation of Some Medicinal Plant Species from Goa. Advances in Plant Sciences and Biotechnology, 2015; 10-16.
- 59. Sharma, P.P.; Singh, N.P. ETHNOBOTANY OF DADRA, NAGAR HAVELI AND

- DAMAN (Union territories). Botanical Survey of India, 2001.
- 60. Gorat, J.; Mahala, U.; Kokni, F.; Modi, N. STUDY OF ETHNO-MEDICINAL PLANTS USED BY THE TRIBES OF SILVASSA, DADRA AND NAGAR HAVELI (UT), INDIA. Int. J. Creat. Res. Thoughts, 2021; 9(11): b869-b879.
- 61. Singh, A.P. Anthropology of Small Islands: The Case of Lakshadweep Islands of India. Anthropological Bulletin, 2014; 3(2): 20-28.
- 62. Ansarali, K.C.; Sivadasan, M. Ethnobotanical investigations in Lakshadweep Islands, India. Ethnobot., 2009; 21: 18-24.
- 63. Sharma, TVRS.; Abirami, K.; Punnam Chander, M. Medicinal Plants Used by Tribes of Andaman and Nicobar Islands: A Conservation Appraisal. Indian J. Plant Genet. Resour., 2018; 31(2): 125-133.