

Weeds in Agroecosystems: A Source of Medicines for Human Healthcare

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ABSTRACT: A list of 88 medicinally important plants distributed in 81 genera belonging to 43 families, eradicated due to intensive agricultural practices and considered as problem plants or declared weeds, that are occurred in the agroecosystem of north eastern coastal Tamil Nadu is presented. Its protection and sharing of benefits in human health care has been under debate at both the global and domestic level for decades. The purpose of this article is to provide an overview of the subject of weeds as a source of medicine, to create awareness about the protection and conservation of biological resources, sustainable use and to promote the social and economic welfare of the farming community.

Key words: agroecosystems, biodiversity, ethnomedicine, indigenous knowledge, weeds.

INTRODUCTION

Plants have been, and still are, a rich source of many natural products. In India, most of which have been extensively used for traditional human health care systems viz. Ayurveda, Unani and Siddha. The vast majority of people in the world takes care of themselves and uses healing plants that have been used for hundreds of generations⁽¹⁻⁴⁾. The most of the plants used by the rural communities have biologically active compounds that have been shown by generations to be effective against specific disorders. The global demand for herbal medicine is not only large, but also growing⁽⁵⁾. In 1991, almost half of the best selling pharmaceuticals were either natural products or their derivatives⁽⁶⁾. The market for Ayurvedic medicines is estimated to be expanding at 20 per cent annually in India⁽⁷⁾. Only 15 per cent of pharmaceutical drugs are consumed in developing countries, and relatively more affluent people take a large proportion of even this small percentage⁽⁸⁾. In some rural areas the collection of medicinal plants for the Indian market is a flourishing business. More than 50 per cent of households in the northern part of central Nepal and about 25 percent in the middle part of the same region are involved in collecting medicinal plants for sale, the materials being traded on to wholesale markets in

Delhi⁽⁷⁾. Every year, the human knowledge about the distribution, ecology, methods of extracting the useful properties of plants and methods of management is declining rapidly. A continuation of the loss of local cultural diversity has underway for hundreds of years⁽⁹⁾.

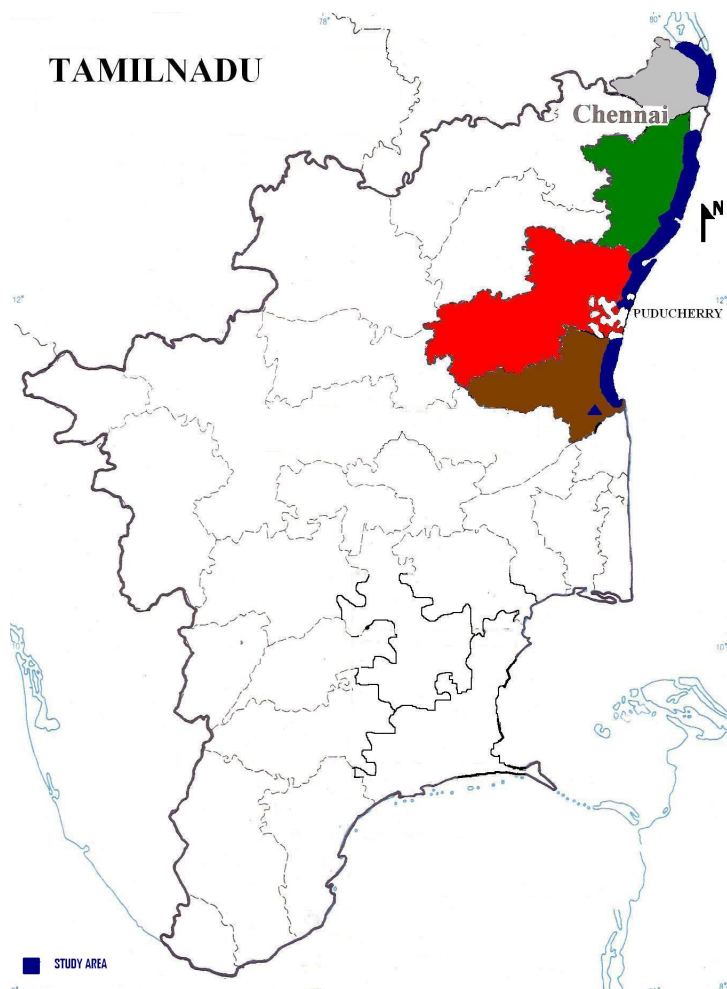
Forest is often considered to be the most promising habitat for source of this search due to high biodiversity and endemism⁽¹⁰⁾. Many scientists have combined this assumption with an ethnobotanical approach to natural medicinal plants discovery in order to maximize the successful development of pharmaceutical products⁽¹¹⁻¹⁴⁾. Ethnobotanical surveys help the suitable source of information regarding useful plants and process of domestication which is a major evolutionary force bringing about different forms of plants through human selection⁽¹⁵⁾. Now a day, collection of medicinal plants from forest is very difficult due to government's forest policy. Therefore, this focus on forests overlooks the fact that disturbed ecosystems are preferred habitats for medicinal plant procurement by many traditional peoples^(16,17). Among the conservative estimate of 250,000 flowering plants in the world⁽¹⁸⁾, more than 8000 species are weeds⁽¹⁹⁾. The weeds grow along with the crop plants (agro-ecosystems) and are regarded as nuisance for crops. But are the raw materials to the

pharmaceutical industries as they yield chemicals used in formulation of various drugs, Vaidyas for preparing herbal formulations and an important source of medicines for indigenous peoples^(21, 22). There are a number of reasons that the rural communities use weeds as medicine found in nearby areas⁽²³⁾. There is some evidence that the plants lose their effectiveness over time, must be used when freshly picked and effective when they grown in disturbed areas. Many weeds contain chemical compounds which are biologically active and potentially useful for medical science. There is also good biochemical evidence that supports the hypothesis that plants in disturbed areas are likely to have more chemicals in them for defense. Today intensive agricultural practices and environmental degradation of habitats in many agro-ecosystems could have an impact on availability of ethnobotanically important plants. This may result in a conflict of interest regarding plant species that have a value to some communities but are regarded as undesirable by others. Further the introduction of large

number of ruminants has resulted in overgrazing and reduction of vegetation in surrounding ecosystems.

The study of medicinally important weeds has not been realized as fully as other traditional communities elsewhere such as wild plants in forest ecosystems which often exclude weed species^(13,14,24,25). In view of the rapid loss of diversity of plants, natural habitats, traditional community life, cultural diversity and knowledge of medicinal plants, documentation of medicinally important weeds is an urgent matter. Secondly, search for new medicines with low cost, more potential and without adverse side effect is needed to solve the major health problems. These efforts are in line with the global convention on biological diversity, 21st agenda and the biodiversity strategy of Tamil Nadu Government^(26,27). It helps to recognition in to popularization of economic importance of plants, upgrading herbal medical practices, conservation of indigenous knowledge and medicinally important plants.

Fig.1: Location of the study area



MATERIALS AND METHODS

STUDY AREA

A vegetation survey was undertaken to determine the role that weedy plant species currently play as a source plants for traditional medicines during June 2004 to May 2006. The study area was north eastern coastal agroecosystem of Tamil Nadu, India comprising Cuddalore, Villupuram, Kanchipuram and Thiruvallur districts comes under the 14th agro-ecological zone namely North Tamil Nadu coastal plain (Fig.1). Geographically it lies between 11°22' to 13°28' N latitude and 79°45' to 80°20' E longitude and the altitude varies from 3 to 27 m amsl. The sampling was done up to 10 km inland from the coast and covers an area of 1800 sq km. The area received an annual mean rainfall of 1120 mm and a mean temperature of 31° C. The minor growing season starts from August – October and the major growing season is November – February, followed by a long dry season from March – July. The aborigines of the area are mostly farmers and daily wage groups. A species was considered to be a weed if it was included in the standard reference for weeds worldwide based on a global literature search^(19,28-31). A weed that corresponds to those species included in this study is “a plant... if, in any specified geographical area, its populations grow entirely or predominantly in situations markedly disturbed by men, without, of course, being a deliberately cultivated plant”⁽³²⁾. All weed species were collected in the field by means of field interview⁽³³⁾ with semi structured questionnaires. Informants were asked to guide as to the places where these weeds grew or to bring the drug they use. Each interviewee was shown plant specimens collected and the medicinal property of each species was accepted as valid if at least twenty five percent informants had a similar opinion. Additional discussions were conducted with the traditional healers including herbalists and diviners. A sample of each medicinally important weed identified was preserved systematically⁽³⁴⁾ in the herbarium of Agronomy Department, Annamalai University, Annamalainager, Tamilnadu for their further reference. Finally additional information's regarding plant uses as medicine was noted and confirmed with the help of available literatures⁽³⁵⁻⁴⁵⁾.

RESULTS AND DISCUSSION

The present investigation comprises 88 species of ethno medicinally important weedy plants distributed in 81 genera belonging to 43 families (Table 1). Amaranthaceae was the most dominant family with eight species, followed by Euphorbiaceae (7 species); Fabaceae, Malvaceae and Solanaceae (5 species); Asclepiadaceae, Compositae and Convolvulaceae (4 species); Capparidaceae, Molluginaceae and Poaceae (3 species); Acanthaceae, Boraginaceae, Cucurbitaceae, Pedaliaceae and Rubiaceae (2 species). *Alternanthera sessilis*, *Centella asiatica*, *Commelina benghalensis*, *Cynodon dactylon*, *Eclipta alba*, *Marsilea quadrifoliata*,

Oxalis corniculata, *Phyllanthus niruri*, *Portulaca oleracea*, *Solanum nigrum*, *Solanum trilobatum*, *Trianthema portulacastrum* and *Tridax procumbens* are the most commonly used medicinally important plants in the inhabitants of north eastern coastal Tamil Nadu. This may be connected the fact that the popularity of the ailments that they are used to treating.

The direct use of popular medicinal plants as ailment is now very low for many inhabitants. They don't grow medicinally important plants in their gardens and collect these from their surrounding environments rather than buy, because these plants are used as an unexpected ailment. The weeds in agroecosystems are mostly annuals, they do not grow in the expected season and the people do not have the expertise or enough knowledge to the importance of these plants. The knowledge of these plants is passed from one generation to another verbally and through experience. Now the younger generations are not interested in agricultural activities and do not popular with traditional practices. The use of medicinally important plants is at a very low level due to lack of remunerative prices and market linkages. These are the factors encountered for lack of popularity as a raw material in the traditional human health care system.

Common health problems in the sites of the study area were external problems such as burns, cuts and wounds, cough, fever, headache, poison bites and skin diseases and the largest number of medicinally important weeds was used to treat these troubles. Common ailments such as headaches or coughs are considered to be diseases with natural causes and hence their symptoms are treated at the household level⁽⁴⁶⁻⁵¹⁾. In the present study nine remedies (*Abrus precatorius*, *Acalypha indica*, *Aerva lanata*, *Cardiospermum halicacabum*, *Clitoria ternetea*, *Leucas aspera*, *Phyllanthus maderaspatensis*, *Portulaca oleracea* and *Vernonia cinerea*) were used to get relief from headache. The inhabitants used *Tridax procumbens* as a major herb to cure cuts and wounds. *Andrographis paniculata*, *Coccinia cordifolia*, *Portulaca oleracea* and *Solanum trilobatum* are used to treat diabetes by the local traditional healers of this location. *Aerva lanta*, *Biophytum sensitivum*, *Phyllanthus niruri* and *Tribulus terrestris* are the recorded other plants used to cure diabetes. Many traditional plant treatments for diabetes are used throughout the world and there is an increasing demand by patients to use the natural products with anti diabetic activity⁽⁵²⁾.

In this locality “Jaundice” (Yellow Fever) is considered as very serious disease. The most of the inhabitants and local traditional practitioners used *Phyllanthus nirurai* and or its combinations as an ailment to cure jaundice rather than other pharmaceuticals. But the literatures show that more than ten species of locally available plants (*Andrographis paniculata*, *Argemone mexicana*, *Boerhaavia diffusa*, *Eclipta alba*, *Hygrophila auriculata*, *Imperata cylindrica*, *Leucas aspera*, *Mimosa pudica*, *Phyllanthus maderaspatensis* and *Solanum*

nigrum) are used traditionally to cure jaundice^(14,20,41,53). The plants such as *Abrus precatorius*, *Anisomeles malabarica*, *Aristolochia bracteolata*, *Calotropis gigantea*, *Clitoria ternatea*, *Gloriosa superba*, *Eclipta alba*, *Enicostemma axillare*, *Leucas aspera*, *Mimosa pudica* and *Sida cordifolia* were still used by tribes and traditional healers as remedy for snake and poisonous bites^(13,54-56).

Several recent studies have proved the weedy plants contain many medically useful active principles (alkaloids, glycosides, polyphenolics, steroids, tannins, resins, flavonoids, tetraploids and fatty acids) that are able to cure many nutritional disorders and diseases^(1,57-67) in the human health care system.

CONCLUSION

This study points out that certain species of weeds are being exploited by the local inhabitants, but they are unaware the importance of all the plants in their agroecosystem. So, medicinally important species are easily discarded by the farming community. These weeds can become an additional source of income for the

farmers, if they are made aware of the medicinal importance of these crop weeds. However there is a possibility of eroding this wealth of knowledge in the future is very fast due to less interest among the younger generation to protect ecosystems as well as their tendency to migrate to cities for lucrative jobs. Therefore, it becomes necessary to identification of specimens, proper documentation, awareness programs and introducing value addition activities related to processing of medicinally important plants through community enterprises are carefully designed to serve the needs of the community and introduced to younger generations in an effective way. This can be tremendous contribution to improving self reliance in primary health care for humans and gives supplementary income to the livelihoods and prevent the loss of our traditional plants and heritage.

The information regarding medicinal uses of plants reported are collected and scrutinized with published literatures and the farming community. However, the therapeutic qualities and active principles of these plants should be standardized scientifically and tested for its safer use.

Table: 1 List of medicinally important weed flora present in the agroecosystem of north eastern coastal Tamilnadu.

Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Abutilon indicum</i> (L.) Sweet.	Thutti	Malvaceae	Dyspepsia, cough, leucorrhoea, piles, tuberculosis, toothache, stomachache
<i>Abrus precatorius</i> L.	Kuntumani	Fabaceae	Cough, headache, urinary complaints, snake bite, wounds
<i>Acalypha indica</i> L.	Kuppaimaeni	Euphorbiaceae	Asthma, bronchitis, bed sores, earache, headache, pneumonia, rheumatism, scabies, ulcers, wounds, tape worm, ringworm
<i>Achyranthes aspera</i> L.	Naiurivi	Amaranthaceae	Bleeding piles, bronchitis, cough, dropsy, diuretic, dysentery, dyspepsia, skin diseases, toothache, urinary concretions, vomiting.
<i>Aerva lanata</i> (L.) A. L. Juss. ex Schultes	Siru poolai	Amaranthaceae	Gonorrhea, headache, kidney disorders, sugar in urine, dissolves the stone and to clear the urinary path.
<i>Alternanthera echinata</i> Smith.	Mull ponnan ganni	Amaranthaceae	Night blindness.
<i>Alternanthera sessilis</i> (L.) R.Br. ex Roem. & Schultz	Ponnan ganni	Amaranthaceae	Body pain, eye disorders, nutritional disorders, piles, stomachache.
<i>Amaranthus spinosus</i> L.	Mullukeerai	Amaranthaceae	Colic, eczema, gonorrhoea, menorrhagia.
<i>Amaranthus viridis</i> L.	Kuppaikeerai	Amaranthaceae	Blood purifier, digesting agent, piles.

<i>Ammannia baccifera</i> L.	Kalluruvi	Lythraceae	Anti typhoid, anti tubercular properties, ringworm, sore, toxic prevention,
<i>Andrographis paniculata</i> Nees.	Nilavembu	Acanthaceae	Asthma, cough, diabetics, fever, jaundice, stomach ulcer.

Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Anisomeles malabarica</i> (L.) R. Br. ex Sims	Peaimiratti	Lamiaceae	Colic, dyspepsia, fever, rheumatism, snake bite, scorpion sting.
<i>Argemone mexicana</i> L.	Bhrmathandu	Papaveraceae	Boils, dropsy, eczema, leprosy, jaundice, itches, spermatorrhoea, ulcers.
<i>Aristolochia bracteolata</i> Retz.	Aaduthinnapalai	Aristolochiaceae	Colic, boils, leucorrhoea, snake bites, ulcers, worms, wounds.
<i>Aerva lanta</i> Juss.	Sirukan poolai	Amaranthaceae	Cough, diabetes, sore throat, wounds.
<i>Bacopa monnieri</i> L. Pennell	Neerprammi	Scrophulariaceae	Epilepsy, increase concentration, improves intellectual activity, memory capacity, reduce stress induced anxiety.
<i>Biophytum sensitivum</i> L.	Puliararala	Oxalidaceae	Asthma, chest complaints, convulsions, diabetes, inflammatory, stomachache, tumors.
<i>Boerhaavia diffusa</i> L.	Mukkurattai	Nyctaginaceae	Anaemia, asthma, blood purifier, fever, hastens delivery, inflammation of urinary tract, jaundice, muscular pains, ophthalmia, swelling.
<i>Borreria articularis</i> L. Willd	Nattichurai	Rubiaceae	Dysentery, diarrhoea, gall stones, haemorrhoids.
<i>Calotropis gigantea</i> R. Br.	Erukku	Asclepiadaceae	Antiseptic, cholera, gonorrhea, haemorrhoids, snake bite,
<i>Cardiospermum halicacabum</i> L.	Mudakathan	Sapindaceae	Arthritis, amenorrhoea, fever, headache, neuropathy, otalgia, ophthalmodynia, strangury,
<i>Cassia auriculata</i> L.	Aavarai	Caesalpinioideae	Jaundice, scabies, worm control.
<i>Centella asiatica</i> (L.) Urb	Vallari	Umbelliferae	Brain tonic, elephantiasis, leprosy, weakness.
<i>Cleome gynandra</i> L.	Nallavezhilai	Capparidaceae	Earache, inflammation, rheumatic, stomachache.
<i>Cleome viscosa</i> L.	Nayikkadugu	Capparidaceae	Cough, dyspepsia, fever.
<i>Clitoria ternatea</i> L.	Kakarattan, Sangu Pushpam	Fabaceae	Eye diseases, headache, indigestion, itching, pox, snake bite, warts, worm control.

Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Coccinia cordifolia</i> (L.) Cong	Kovai	Cucurbitaceae	Diabetes, itching
<i>Commelina benghalensis</i> L.	Kanankeerai	Commelinaceae	Burns, boils, laxative, leprosy, nervous disorders, swellings.
<i>Convolvulus arvensis</i> L.	Thalikodi	Convolvulaceae	Anticonvulsions, purgative, cooling.
<i>Crotalaria verrucosa</i> L.	Gilugilupai	Fabaceae	Cure scable, detoxicant.
<i>Croton bonplandianum</i> Baill.	Milagai poondu	Euphorbiaceae	Arthritis, polio.

<i>Cynodon dactylon</i> (L.) Pars.	Arugam pullu	Poaceae	Dysentery, insanity, leucorrhoea, piles, urinary troubles.
<i>Cyperus rotundus</i> L.	Korai	Cyperaceae	Abscesses, cholera, cough, diarrhoea, erysipelas, epilepsy, fever, wounds.
<i>Cyphostemma setosum</i> (Roxb.) Alston,	Puzhi naralai	Vitaceae	Antihypertensive, antispasmodic, antiprotozoal.
<i>Dactyloctenium aegyptium</i> (L.) Beauv.	Kakkakalpul	Poaceae	Antipyretic.
<i>Datura matel</i> L.	Oomathai	Solanaceae	Antispasmodic, insanity.
<i>Desmodium gangeticum</i> (L.) DC	Desmodium	Fabaceae	Asthma, diuretic, eczema, itching,
<i>Digeria arvensis</i> Forsk.	Thoyyakeerai	Amaranthaceae	Urinary discharge troubles.
<i>Eclipta alba</i> (L.) Hassk.	Karisalankanni	Compositae	Antiseptic for ulcers, emetic, jaundice, nerves problems, purgative, tonic, snakebite.
<i>Enicostemma axillare</i> (Lam.) A. Raynal.	Vellarugu	Gentianaceae	Abdominal ulcers, colic, constipation, dropsy, dyspepsia, flatulence, glycosuria, helminthiasis, hernia, hepatopathy, leprosy, intermittent fevers, malaise, pruritus, skin diseases, snake bite, swellings.
<i>Euphorbia hirta</i> L.	Ammaan pacharisi	Euphorbiaceae	Asthma, boils, bronchitis, cough, colic troubles, enriches the blood, laxative, piles, swellings, vomiting.

Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Evolvulus alsinoides</i> L.	Vishnukiranthi	Convolvulaceae	Cough, fever, obstructive.
<i>Fumaria indica</i> (Hauskn.) Pugsley	Thara	Fumariaceae	Dyspepsia, eczema, laxative, wounds.
<i>Gisekia pharnaceoides</i> Linn.	Manalikeerai	Molluginaceae	Anti helmintics, cough, swellings, worm control.
<i>Glinus lotoides</i> L.	Siruserrupaddai	Molluginaceae	Scabis, digestive, tapeworm infestation,
<i>Gloriosa superba</i> L.	Kanvalipoondu	Liliaceae	Asthma, fever, leucorrhoea, piles, sensation, snake bite.
<i>Gynandropsis pentaphylla</i> DC.	Kattukadugu	Capparidaceae	Expelling round worms, otalgia, otorrhoea.
<i>Heliotropium indicum</i> L.	Thelkodukku	Boraginaceae	Fractured bone, eczema, sore styptic.
<i>Hemidesmus indicus</i> R. Br	Nannari	Asclepiadaceae	Alterative, blood purifier, chronic rheumatism, demulcent, diaphoretic, diuretic, nutritional disorders, syphilis, tonic, urinary diseases skin affections
<i>Hybanthus enneaspermus</i> Muell,	Oritzhal thamarai	Violaceae	Anti inflammatory, antitussive, antiplasmodial, anticonvulsant, cholera, urinary tract infections
<i>Hygrophila auriculata</i> (Schumach.) Heine	Neermulli	Acanthaceae	Anasarca, dropsy, diseases of the urinogenital tract jaundice, rheumatism.
<i>Imperata cylindrica</i> (L.) Beauv	Saetu cumbu	Poaceae	Antipyretic, diuretic, hypertension, jaundice, wounds.
<i>Indigofera aspalathoides</i>	Sivannar Vembu	Leguminoceae	Tooth ache, stomachache.

Vahl.			
<i>Ipomoea obscura</i> (L.) KerGawl.	Narunthalli	Convolvulaceae	Stomach complaints,
<i>Jatropha gossypifolia</i> L.	Kattamanakku	Euphorbiaceae	Antibiotic, body pain, blood purifier, carbuncles, eczema, emetic, itches, sores on the tongues of babies, intermittent fevers, purgative, stomachache, swollen mammae, toothache, venereal disease.
<i>Lantana camara</i> L.	Unni	Pedaliaceae	Cuts, wounds.
Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Leucas aspera</i> (Willd.) Spreng.	Thumbai	Labiatae	Digestion, fever, head ache, jaundice, snakebite, stomach disease.
<i>Lippia nodiflora</i> L.	Poduthazhai	Verbenaceae	Asthma, anthelmintic, bronchitis, blood and eye disorders, bowels, burning sensation, fevers, colds, diseases of the heart, stomachic, thirst and loss of consciousness, ulcers, urinary concretions, wounds, vulnerary.
<i>Marsilea quadrifoliata</i> L.	Aarakeerai	Marsileaceae	Dyspepsia, well sleeping,
<i>Merremia emarginata</i> (Burm. f.) Hallier f.	Elikkadailai	Convolvulaceae	Alterative, cough, deobstruent, rheumatism, sore, stomach problems.
<i>Mimosa pudica</i> L.	Thottal vaadi	Mimosaceae	Asthma, Dysentery, fever, haemorrhoids, leucoderma, jaundice, pistula, Seminal weakness, snake poisoning, ulcers, wounds.
<i>Mollugo cerviana</i> (L.) Ser.	Porpadagam	Molluginaceae	Coughs, fevers, hangovers, purify the blood.
<i>Mukia maderaspatana</i> (L.) M.J.Roem.	Musumusukai	Cucurbitaceae	Cold, cough
<i>Ocimum canum</i> L.	Nayitulasi	Labiaceae	Cough, diuretic, fever.
<i>Oldenlandia umbellata</i> L.	Sayver,	Rubiaceae	Wounds for fast healing.
<i>Oxalis corniculata</i> L.	Puliyari	Geraniaceae	Cooling effect, dysentery, diarrhea, Stomach troubles.
<i>Pavonia odorata</i> Willd.	Peramutti	Malvaceae	Astringent, dysentery, enterorrhagia, fever, inflammation, refrigerant.
<i>Pavonia zeylanica</i> (L.) CAV	Sithamutti	Malvaceae	Paralysis.
<i>Pedaliium murex</i> L.	Perunerinjil	Pedaliaceae	Aphrodisiac, diuretic, heal wound, urinary tract infection.
<i>Pentatropis capensis</i> (Linn.f.) Bullock	Upillan kodai	Asclepiadaceae	Acidity, fever.
<i>Pergularia daemia</i> (Forsk.) Chiov.	Vaeli paruthi	Asclepiadaceae	Anti inflammatory, antipyretic and analgesic activities

Botanical name	Vernacular name (Tamil)	Family	Therapeutics
<i>Phyllanthus niruri</i> L.	Kezlanelli	Euphorbiaceae	Jaundice, diabetes, urinary infections, intermittent fever.
<i>Phyllanthus maderaspatensis</i> L.	Mellanelli	Euphorbiaceae	Diuretic, headache, jaundice,
<i>Physalis minima</i> L.	Chodukuthali	Solanaceae	Abdominal troubles
<i>Portulaca oleracea</i> L.	Paruppukeerai	Portulacaceae	Burns, cardio vascular diseases, cholesterol reducer, fever, diarrhoea, diabetes, headache, ulcers, urinary disorders, wounds.
<i>Sida acuta</i> (Burn. F)	Arivamookan	Malvaceae	Demulcent, diuretic, hemorrhoids, stomachache.
<i>Sida cordifolia</i> L.(Burn.F)Borss	Pazhalem pasi, Nilathutti	Malvaceae	Astringent, anti rheumatic, gonorrhoea, leucorrhoea, heal cuts, nervous disorders, snake bite, scorpion sting, wounds.
<i>Solanum nigrum</i> L.	Manathakkali	Solanaceae	Jaundice, cough, piles, skin diseases, ulcer.
<i>Solanum trilobatum</i> L.	Thuthuvzhalai	Solanaceae	Cough, diabetes, nutritional disorders, ulcer.
<i>Solanum xanthocarpum</i> Schard&Wendl.	Kandankathari	Solanaceae	Anti inflammatory, asthma, constipation, cough, diuretic, fever, laxative, sore throat, stimulant, stomachache,
<i>Sonchus oleraceus</i> L.	Siruyanaichedi	Compositae	Earache, eye diseases, fever, scars, stomach upset.
<i>Tephrosia purpurea</i> Pers.	Kozhinji, Kollukai vzhelai	Fabaceae	Anemia, asthma, elephantiasis, Inflammation, piles, tooth ache, skin diseases, stomach pains.
<i>Tragia involucrate</i> L.	Kanchoarri	Euphorbiaceae	Antibacterial, wound healing
<i>Trianthema portulacastrum</i> L.	Saaranai,	Aizoaceae	Asthma, constipation, diuretic, edema.
<i>Tribulus terrestris</i> L.	Nerunji	Zygophyllaceae	Anti inflammatory, blood purifier, cardio tonic, diabetics, digestive, increases menstrual flow, laxative.
<i>Trichodesma indicum</i> (L.) R. Br.	Kavithumbai	Boraginaceae	Diarrhea, dysentery.
<i>Tridax procumbens</i> L.	Vettukayapundu, Kinathupassan	Compositae	Boils, cuts, eye diseases, dysentery, diarrhea, wounds.
<i>Vernonia cinerea</i> (L.) Less.	Mukuttiipoovu,	Compositae	Anthelmintic, cough, fever, diarrhea, headache, insomnia, malaria, leucoderma, skin diseases, stomach ache.

ACKNOWLEDGEMENTS

The authors are grateful to the farming community and local traditional practitioners in the North Eastern Coastal Tamil Nadu for sharing their knowledge on traditional medicine.

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