

## **Ethnomedicinal Uses of Plants in the Plains Area of the Tirunelveli-District, Tamilnanu, India**

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### **ABSTRACT**

India has a rich heritage of using medicinal plants for indigenous uses and practices. Some of the country's best herbal medicines have also been introduced worldwide, and new applications have been found for them in different parts of the world. This new found "fame", however, has proven to be troublesome for India in some instances. For example, the "turmeric case" highlights the problems faced by this country in preventing bio-piracy.

Traditional systems of medicine such as Ayurveda, Sidda, Unani, and homeopathy make use of more than 2000 plant species. Local People, medicinal practitioners and tribal healers of this country where oral tradition is closely followed, have made some of our medicinal plants world famous as they find diverse applications across the world. Traditional systems of medicine make use of nearly 7000 plant species. Out of the 17,000 economic species of angiosperms known worldwide, about 5000 occur in India. Of these, 3000 are medicinal plants in which root drugs constitute the largest number of species (680) followed by drugs originating from fruits (450). Bearing the above facts in mind, an attempt has been made here to enumerate the medicinal plants available in the Tirunelveli plains, with help of local people and medicinal practitioners. Approximately three hundred fifteen plants were at one time medicinally used in the plains area of the Tirunelveli district, of which 95 have been treated in the following account:

### **INTRODUCTION**

In recent years, due to the increasing dissatisfaction with modern medicines and increased consumer desire in healthy living, there has been a dramatic increase in the consumption of natural foods and the use of dietary supplements. The aim of the present studies is to list the Ethnomedicinal uses of plants in the plains area of the Tirunelveli district. In this district, human life and culture have directly or indirectly been associated with and influenced by the surrounding environment. People live partly on leaves, tubers and fruits of forest plants and use plant drugs as medicines, thereby offering much scope for Ethnobotanical studies. About 85% of traditional medicine involves the use of plant extracts (Vieira and Skorupa, 1993). Many plant species, possessing medicinally important compounds are disappearing at an alarming rate due to the destruction of their natural habitats—this owing to rapid agricultural development, urbanization, indiscriminate deforestation and uncontrolled collection of plant materials. Primitive people live closely associated with nature and chiefly depend on it for their survival. World wide, ten

thousands of species of higher plants and several hundred lower plants are currently used by human beings for a wide variety of purposes such as food, fuel, fiber, oil, herbs, spices, industrial crops and as forage and fodder for domesticated animals (Heywood, V.H. 1992). Many people; especially in poor countries, use wild plants for food, construction materials, fuel wood, medicine and many other purposes. Ethnobotanists can play a very useful role in returning such disappearing knowledge to local communities. In this way, local ethnobotanical knowledge can be conserved as part of living cultural-ecological systems, helping to maintain a sense of pride in local cultural knowledge and practice and reinforcing links between communities and the environment, so essential for conservation (Gary and Martin, J. 1995 ).

## METHODOLOGY:

Data was collected from the local People and medicinal practitioners inhabiting the villages of Vickramasingapuram, Vallioor, Navaladi, Melanavaneethanallur, Panangudi, Kalakad, Sankarnagar, Jothipuram, Vannikonandhal, Alankulam, Thirukkurunkudi, Kannanallur, Ittamozhli, Surandai, Nanguneri, Sankarankoil, Puliarai, Papanasam, Courtallam, Sivagiri, Tisayanvillai, Kallikulam, Ambasamudrum, Kottaikarunkulam, Kasthurirangapuram, Tenkasi, Cheranmhadevi, Thinaiyurani Koliiankulam, and Manjuvilai in the Tirunelveli District. In this study, data collection was based upon medicinally useful plant, plant parts, local names, economical value, method of administration and time of year. Questions were asked of local People and medicinal practitioners. At the time, actual applications were also observed during field work. Plant specimens were matched and deposited (Diane Bridson and Leonard forman., 1992) in Xavier's College Herbarium (XCH) – Palayamkottai-02 Tirunelveli. Plants were identified by using relevant floras (Gamble., 1935 & 1994; Gopalan and Henry., 2000; Mohanan and Sivadasan., 2002; Nair and Nayar., 1986 & 1987).

## RESULT AND DISCUSSION

The present paper calls attention to the fact that 315 plant species were used for medicine in the plains area of the Tirunelveli district.. The ethnomedicinal uses in our society run broad categories; various kinds' natural food medicines. As we have seen, in our society we have not given support and respect to our ethnobotanist, primarily because interest in this field has only just reemerged. Recently, some researchers in this field have turned to computer software in order to make more widely available traditional knowledge in this field (John De Britto and Mahesh 2007 and 2008). Ethno botany issues are the focus of much public attention. Due to increased public interest and policy making in conservation, companies are looking to plants for new approaches to food, medicines, and energy sources. University departments are opening positions for interdisciplinary-trained ethno botanists. The future looks promising for these dedicated scientists in a fascinating and vital field of research.

In Tirunelveli, tribal medicine is often kept a secret within family circles. Therefore, in so far as possible, it is important for us to collect this knowledge and bring it to the attention of the world (see Table 1).

**Table 1. Medicinal plants in the plains area of the Tirunelveli District.**

S.No	Botanical Name	Family	Local Name	Field Number XCH	Parts used and use
1.	Aegle marmelos (L.) Correa	Rutaceae	Vilvam	27091, 29990	Ripe fruits: constipation and dysentery

					Unripe Fruits: improve appetite and digestion Decoction of leaves: febrifuge
2.	<i>Aerva persica</i> (Burm.f.) Merr.	Amaranthaceae	Perumbulai	25475,25775	The whole plant: diuretic and demulcent.
3.	<i>Aerva lanata</i> (L.) Juss. ex Schultes	Amaranthaceae	Cerupulai	25475,25775	The whole plant: astringent, cooling, vermifuge and diuretic
4.	<i>Agave americana</i> L.	Agavaceae	Kantala	27424	The whole plant: toothache and dropsy.
5.	<i>Ageratum conyzoides</i> L.	Asteraceae	Pumpullu	25302,26926	The whole plant: purgative, carminative, laxative, cough, asthma, bronchitis, leprosy and many other skin diseases
6.	<i>Albizia amara</i> (Roxb.) Boivin	Mimosaceae	Usila maram	26975	The whole plant: antiseptic property
7.	<i>Allmania nodiflora</i> (L.) R.Br.ex Wight	Amaranthaceae		27462,27463	Ripe fruits : constipation and dysentery Leaves : febrifuge
8.	<i>Aloe vera</i> (L.) Burm.f.	Liliaceae	Chiru kattalai	27394	The whole plant: astringent, cooling, vermifuge and diuretic
9.	<i>Alternanthera pungens</i> Kunth	Amaranthaceae	Thevedialmul	25026,26069	The whole plant: antiseptic property
10.	<i>Alysicarpus vaginalis</i> (L.)DC.	Papilionaceae	Namapoondu	27494	
11.	<i>Amaranthus viridis</i> L.	Amaranthaceae	Kuppai kirai	25966,26321	The whole plant: toothache, dropsy
12.	<i>Amaranthus caudatus</i> L.	Amaranthaceae	Thander keerai	26494	Root: cure kidney stones. Leaves: cuts, leprosy, boils, burns and fever.
13.	<i>Alpinia calcarata</i> Roscoe	Zingiberaceae	Amkdinji (Chitarathai)	27477	Roots: cough
14.	<i>Ammania baccifera</i> L.	Lythraceae	Kallurvi	26758	The whole plant: wounds
15.	<i>Anacardium occidentale</i> L.	Anacardiaceae	Mundhiri	26741, 26964	Root: cough Leaves: anti-cancer
16.	<i>Andrographis paniculata</i> (Burm.f) Wall, ex Nees	Acanthaceae	Siriyangai	25086	Leaves: fever and piles
17.	<i>Apluda mutica</i> L.	Poaceae	Moongil pul	25265,26660	The whole plant: diuretic, gonorrhoea
18.	<i>Arca catechu</i> L.	Arecaceae	Pakku	27422	The whole plant: wounds
19.	<i>Argemone mexicana</i> L.	Papaveraceae	Brahmadand	26689	Plant twig resins are applied on the surface

20.	<i>Argyreia nervosa</i> (Burm .f) Boj.	Convolvulaceae	Samutrappachai	26425	Leaves: emollient Root: boils Root paste: scorpion sting
21.	<i>Aristida set ace a</i> Retz.	Poaceae	Kudhirai val	25768	Leaves: abortifacient The whole plant: diuretic, piles
22.	<i>Aristolochia bracteolata</i> Lam.	Aristolochiaceae	Aduthinna palai	26120,26168	The whole plant: cooling, boils, burns, and nausea Root: thermogenic, haemostatic Uterine diseases and burning sensation. Leaves : snake bite poisoning and burning sensation
23.	<i>Aristolochia indica</i> L.	Aristolochiaceae	Karudakkodi	25092,25135	Leaves: emollient Root: boils Root paste: scorpion sting
24.	<i>Artemesia nilagirica</i> (C.B. Clarke) Pamp.	Asteraceae	Tirunama	27322	The whole plant: tooth ache, ear ache, severe cough and burn
25.	<i>Arundo donax</i> L.	Poaceae	Mudam pul	27328	The whole plant: astringent, diarrhoea, dysentery
26.	<i>Asparagus gonocladus</i> Baker	Liliaceae	Shakakal	27487	The whole plant: skin diseases
27.	<i>Asparagus racemosus</i> Willd.	Liliaceae	Shatavali	27321	Rhizome : inflammation Seed : diarrhoea
28.	<i>Asystasia gangetica</i> (L.) T. And.	Acanthaceae	Meddykeerai	26660,26684	Leaves: fever and skin diseases Plant extract: antibacterial
29.	<i>Atlantia monophylla</i> (L.) Correa	Rutaceae	Adavinimma	18491	Leaves: ring worm and parasitic skin infections
30.	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Vembu	26213,26274	The whole plant: cooling, appetizer and laxative.
31.	<i>Bacoba monnieri</i> (L.) Pennel	Scrophulariaceae	Nirbirami	16528,27026	Root: purgative. Bark with inflorescence: snake bites.
32.	<i>Barleria buxifolia</i> L.	Acanthaceae	Gannukatte mullu	25352,11222	Roots and leaves: stomach ache, tonic and febrifuge
33.	<i>Barleria courtallica</i> Nees	Acanthaceae	Venkurinii	11231,14656	Leaves: healing ulcer Seeds: abortion Ripe fruit: malignant tumours
34.	<i>Barleria cristata</i> L.	Acanthaceae	December popu	27402,27418	Young Plant: cough and fever
35.	<i>Basella alba</i> L.	Chenopodiaceae	Pasali keerai	25570	Leaves: skin diseases and wounds.
36.	<i>Bauhinia purpurea</i> L.	Caesalpiniaceae	Mandari	27444	Bark: tumour in stomach Flower powder: laxative
37.	<i>Bauhinia tomentosa</i>	Caesalpiniaceae	Kanchini	25921	Leaves: abscesses Seed: tonic

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38.	<i>Bidens pilosa</i> L.	Asteraceae	Mukkuthi	26566, 26600	Plant extract: skin diseases.
39.	<i>Biophytum sensitivum</i> (L.) DC.	Oxalidaceae	Mukkutti popu	26353	The whole plant: diuretic, expectorant, stimulant and tonic
40.	<i>Blumea aurita</i> (L.f.) DC.	Asteraceae	Marang-puru	26763	Leaves : stop bleeding from cuts
41.	<i>Blumea lacera</i> (Burm .f.) DC.	Asteraceae	Kattu Mullangi	18288	Root: blood purifier. Leaves: urinary complaints.
42.	<i>Blumea membranacea</i> Wall, ex DC.	Asteraceae	Pok sunka	26468	Leaves: antibacterial agents. The whole plant: antifungal activity
43.	<i>Blumea mollis</i> (D.Don) Merr.	Asteraceae		27001	Leaves: skin diseases The whole plant: diarrhoea
44.	<i>Boerhavia chinensis</i> (L.) Asch. & Schweinf.	Nyctaginaceae	Piri kechoara	27110	Roots: skin diseases
45.	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Mukarattakirei	25066 25356	Root: Jaundice Leaves: child birth The whole plant: liver complaints
46.	<i>Borassus flabellifer</i> L.	Arecaceae	Panai	27421	Root: cooling, diuretic and stimulant Leaves: cough
47.	<i>Brassica nigra</i> (L.) Koch.	Brassicaceae	Kaduku	27524	Seed oil: pneumonia
48.	<i>Bulbostylis barbata</i> (Rottb.) C.B. Clarke	Cyperaceae	Thulukaclic pul	26082,26234	The decoction of the plant: dysentery.
49.	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Gulmohar	18525	Roots : tuberculosis Bark: dysentery. Seed : vermifuge
50.	<i>Caesalpinia crista</i> L.	Caesalpiniaceae	Kalachikai	27324	Root paste: intestinal worms.
51.	<i>Calotropis gigantea</i> (L.) R.Br.	Asclepiadaceae	Erukku	25424,25881	Root bark: paralysis, swelling and intermittent fever Flowers: stomachache, tonic and digestive
52.	<i>Cassia mimosoides</i> L.	Caesalpiniaceae	Nelaponna	11451	Leaves and seeds: stomachache and headache
53.	<i>Cassia sophera</i> L.	Caesalpiniaceae	Sularai	27401	Root: snake bite Leaves: ring worms Seed: skin diseases.
54.	<i>Cassia tora</i> L.	Caesalpiniaceae	Usithagarai	25375,26424	Leaves: purgative
55.	<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae	Nithya kalyani	25688, 25984	Root: leukemia, breast cancer and other related problems. Leaves: sedative and stomach ache

56.	<i>Ceiba pentandra</i> (L). Gaertn.	Bombacaceae	Ilavam	27123	Bark: abortifacient, brain tonic Seeds: stimulant, digestive and laxative
57.	<i>Celosia argentea</i> L.	Amaranthaceae	Pannai Keerai	26827,26931	Seeds: diarrhoea,diseases of eyes The whole plant: antiprotozoal spasmolytic
58.	<i>Centella asiatica</i> (L.) Urban	Apiaceae	Vallarai	27517	Leaves: diuretic, alternative, skin diseases, leprosy Powdered leaves: improve memory power and concentration of mind
59.	<i>Carina indica</i> L.	Cannaceae	kalvalai	27312	Rhizome: ring worm
60.	<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Mudakkathan keerai	25023,26720	Root decoction : emetic Leaf Juice: diabetes
61.	<i>Carissa carandas</i> L.	Apocynaceae	Kalakkai	27456	Root: stomach disorder Fruits: skin diseases and burning sensation
62.	<i>Carica papaya</i> L.	Caricaceae	Papaya	25507	Fruits: laxative Dried seed powder: anti-fertility drug
63.	<i>Cassia absus</i> L.	Caesalpiniaceae	Kattukollu	25871,26118	Seeds : blood pressure. Leaves : ring worm and other skin diseases
64.	<i>Cassia alata</i> L.	Caesalpiniaceae	Vandu kollu	26988,26778	Juice of leaves: skin troubles. Seeds: vermifuge.
65.	<i>Cassia angustifolia</i> L.	Caesalpiniaceae	Senna	25122,26119	Leaves: skin diseases, constipation, pimples, rheumatism and purgative
66.	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Avarai	25217,25920	Roots, leaves and flowers: diabetes and urinary troubles.
67.	<i>Hygrophila auriculata</i> (Schum.) Heine	<i>Acanthaceae</i>	Neer mulli	26440	Seeds and Roots: urino-genital system troubles.
68.	<i>Hyptis suaveolens</i> (L.) Poit.	<i>Lamiaceae</i>	-	25020,26054	Leaves: colic disorders Root: stomachache
69.	<i>Indigofera aspalathoides</i> Vahl ex DC.	<i>Fabaceae</i>	Sivanar vempu	25421	Leaves: abscesses Flower and tender shoots;- , demulcent and leprosy.
70.	<i>Indigofera caerulea</i> Roxb.	<i>Fabaceae</i>	Neiliavuri	26092	Leaf paste: jaundice
71.	<i>Indigofera linnaei</i> Ali.	<i>Fabaceae</i>	Seppu nerunchi	25259, 26580	The whole Plant: diuretic and venereal diseases.
72.	<i>Indigofera trita</i> L.f.	<i>Fabaceae</i>		25724	Seeds: nutritive tonic

73.	<i>Indoneesiella echinoides</i> (L.) Sreemadh.	<i>Acanthaceae</i>	Kopuranthangi	25103	The whole Plant: febrifuge
74.	<i>Ipomoea carnea</i> Jacq.	<i>Convolvulaceae</i>	Kattu poovarasu	25014,25271	Leaves: mild purgative
75.	<i>Ipomoea obscura</i> (L.) Ker-Gawl.	<i>Convolvulaceae</i>	Siruthali	25062,25165	Leaves: eye diseases
76.	<i>Ipomoea pes-tigridis</i> L.	<i>Convolvulaceae</i>	Punai keerai	26411,26477	Leaves: sores and pimples Root: purgative
77.	<i>Ixora coccima</i> L.	<i>Rubiaceae</i>	Vetch i	27226.	Root: stomach disorder
78.	<i>Jatropha multifida</i> L.	<i>Euphorbiaceae</i>	Kattu nervalam	27521	Leaves: scabies Latex: wounds and ulcers Seeds: purgative
79.	<i>Jatropha curcas</i> L.	<i>Euphorbiaceae</i>	Kattamanakku	25016,27004	Leaves: ulcers tumors and scabies Latex: wounds Oil: Bio diesel
80.	<i>Mollugo pentaphylla</i> L.	<i>Molluginaceae</i>	Seeragapoondu	25002, 25049	The whole plant: antiseptic and sores.
81.	<i>Mollugo nudicaulis</i> Lam.	<i>Molluginaceae</i>	Parpadagam	25377	Leaves: boils
82.	<i>Momordica charantia</i> L.	<i>Cucurbitaceae</i>	Pavakkay	25782	Root: astringent and ophthalmic Leaves: emetic, anthelmintic and purgative Fruits: stimulant and purgative
83.	<i>Morinda pubescens</i> J.E. Smith	<i>Rubiaceae</i>	Manjanatti	11538, 16287	Root: constipating, anti-inflammatory and tonic.
84.	<i>Moringa pterygosperma</i> Gaertn.	<i>Moringaceae</i>	Moringa	27588	Root: digestive, carminative, constipating and anti-inflammatory Bark: abortifacient, antifungal, cardiac and circulatory stimulant Seeds: anti-inflammatory, purgative and ophthalmic.
85.	<i>Moms alba</i> L.	<i>Moraceae</i>	Mulberry	26986,27393	Leaves: diaphoretic Root: anthemetic Bark: purgative and vermifuge Fruits: refrigerant
86.	<i>Mucuna pruhens</i> (L.) DC.	<i>Fabaceae</i>	Poonaikali	27329	Root: tonic, stimulant, diuretic and purgative Seeds: tonic

87.	<i>Physalis minima</i> L.	<i>Solanaceae</i>	Tottakkali	25010,25085	The whole Plant: cooling, diuretics, laxative, expectorant and tonic.
88.	<i>Pistia stratiotes</i> L.	<i>Araceae</i>		27425	Juice of leaves: skin diseases
89.	<i>Pithecolobium dulce</i> (Roxb.) Benth.	<i>Mimosaceae</i>	Kodukkapuli	26913	Root bark: dysentery
90.	<i>Plectranthus mollis</i> (Alien) Spreng.	<i>Lamiaceae</i>		26448	Leaves: healing agent
91.	<i>Plumbago auriculata</i> L.	<i>Plumbaginaceae</i>	Neeli chitra mool	26391,26692	Root: piles, epilepsy, and jaundice
92.	<i>Plumbago zeylanica</i> L.	<i>Plumbaginaceae</i>	Chitaraitai	27101	Root: leprosy, edema and piles
93.	<i>Polyalthia longifolia</i> (Sonner.) Thw.	<i>Annonaceae</i>	Nettilingam	26264	Bark : diarrhoea, dysentery, cooling and febrifuge
94.	<i>Polycarpha corymbosa</i> (L.) Lam.	<i>Caryophyllaceae</i>	Parpata	26365,26344	Leaves: jaundice and inflammatory swellings
95.	<i>Polygonum plebeium</i> R.Br.	<i>Polygonaceae</i>	-----	21302	Leaves: pneumonia

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