

ETHNOBOTANICAL STUDIES ON PLANT RESOURCES OF TRICHIRAPALLI DISTRICT TAMILNADU, INDIA

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ABSTRACT

The present ethno-botanical survey conducted in forest areas of Tiruchirapalli district resulted in the information about traditional plant uses of 197 plants species belonging to 168 genera distributed in 78 families. Of these, highest number of species belongs to Fabaceae with 18 species, 13 species to Euphorbiaceae, 9 species to Acanthaceae and Asclepiadaceae each. Information gathered from Tiruchirapalli district point to that the ethnic people, and other village people of this region possess good knowledge of herbal medicine, but their continuous and progressive exposure to modernization may result in extinction of the such rich traditional of knowledge in the course of time. Diseases / ailments found prevalent in the area are Pielis, Jaundice, Dysentery, Bone fracture, diabetes, skin diseases, Asthma, kidney stone, tooth ache, fever and wounds. Majority of preparation are from leaves and some are of underground parts (like root, rhizome, tuber, etc). Following data includes botanical name of species, vernacular name family, plant part used method of medicine and details about its application. Among the plant parts used in different formulations, leaves are abundantly used which is followed by roots and whole plant.

KEYWORDS: Traditional Uses, Ethnic People, Tiruchirappalli, Tamil Nadu

INTRODUCTION

Indigenous knowledge can be defined as “knowledge of the people living together in a certain area, generated by their own and their ancestors, experience, including knowledge originated from elsewhere which has to be internalized by the local people knowledge of traditional medicine is important for sustaining their development and utilization. In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine (Pei, 2001).

During last few decades there has been an increasing in the study of medicinal plants and their traditional use in different parts of the world (Lev, 2006). Herbal remedies are considered the oldest forms of health care known to mankind on this earth earlier to the development of modern medicine, the traditional systems of medicine that have evolved over the centuries within various communities, are still maintained as a great traditional knowledge base in herbal medicines (Mukherjee and Wahil, 2006). Traditionally, this treasure of knowledge has been passed on orally from generation to generation without any written document (Perumal Samy and Ignacimuthu, 2000) and is still retained by various ethnic groups around the world. Documenting the indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of plant resources.

The field survey has been found to be one of the reliable approaches to drug discovery (Fabricant and Farnsworth, 2001). Several active compounds have been discovered from plants on the basis of ethnobotanical information and used directly as patented drugs (Carney et al., 1999). As indigenous cultures are intimately maintained by the tribal and other forest dwellers all over the world, the ethnobotanical investigation is a prerequisite for any developmental planning

concerned with the welfare of tribal and their environment. It is an urgent, requirement to record as quickly as possible all information about plants and the role of tribes in conserving them. The main focus of the present study is to ascertain the detailed information on the use of plants and their remedial practices among malialis tribals and forest dwellers of Tiruchirapalli district, Tamil Nadu.

MATERIALS AND METHODS

Study Area

Tiruchirapalli Forest covering areas of various forest types consisting of valuable floral species of medicinal value. However, the species composition particularly of trees, herbs, shrubs, climbers and other ground flora have, not yet been inventorised in totality till date, except secondary data form taxonomic literatures by botanist and name of a few species in earlier working plans in the Forest Departments. The total geographical area of the district is 440383 hectare out of this 45,272.29ha is Reserve Forests and 1034.58 ha is Reserve lands. An area of 1636.66 ha of Tiruchirapalli Range has been leased out to Tamil Nadu Forest plantation Corporation Ltd.

Boundaries

The district is situated between 78°10' to 79°5'. East longitudes and 10°15' and 11°2' North latitude.

Geo Code: East longitude 78°10' to 79°5'

North latitude 10°15' to 11°2'

Tiruchirapalli District most centrally located in the state of Tamil Nadu. This figure 1 is bounded on the north by Perambalur district, Northwest by Namakkal district, East by Thanjavur district, West by Karur district, South-East by Pudukkottai district, and South by Sivagangai and Madurai district

Topography

Tiruchirapalli district is irregular in shape. Barring few hills and hillocks, the district is composed of plains, valley bottoms, undulating upland area and broken chain of Eastern Ghats viz., Pachchamalai hills, Semmalai hills RFs and Ayyalur hill RFs. Part of Pachchamalai hills in Musiri taluk. Musiri and Thuraiyur taluk present a gently undulating upland area. Lalgudi taluk is fairly plain. North and North-western parts of Tiruchirapalli present a vast stretch of flat flood plain of Cauvery alluvium with morphology associated with meandering river system. The southern and south Eastern parts present undulating plains to level plain topography. The important feature of Tiruchirapalli Forest area is that it consists of large number of widely scattered forest blocks of varying size and importance. The forests of this division may be broadly divided in the following groups:

- The Southern Pachchamalais.
- The hills of Manapparai Range.
- The scattered bits of plain forests.

The Southern Pachchamalais

The hills are situated on the north western border of Tiruchirapalli district and extend to the adjoining Salem district. The boundary between Tiruchirapalli and Namakkal districts passes across the plateau of Pachchamalais leaving only the southern portion in Tiruchirapalli division. The whole of southern slopes and parts of the eastern and western slopes of Pachchamalais fall within Tiruchirapalli district. The northern portions of Pachchamalais fall within Attur taluk

of Namakkal district. The Pachchamalais of Tiruchirapalli Forest division are separated from Kollimalais of Namakkal district by the narrow Thammampatti valley. The elevation of the Pachchamalais varies from 500mts. to 1000mts. The slopes of the hills are generally steep and sometimes precipitous.

The Hills of Manapparai Range

The hill of Manapparai consists of groups of small isolated hills sometimes forming small ranges in the western portion of the division. The hills extend westwards into the forests of Ayyalur Range of Dindigul division and towards south east into the forests of Pudukkottai district. The elevation of these hills varies from 300 mts. to 800 mts. This includes parts of Eastern ghats area viz; Ayyalur hill RFs & Semmalai hill RFs.

The Plain Forests

This comprise most of the forests of all the ex-zamin and ex-panchayat forests of Tiruchirapalli district, namely, those of erst-while Marungapuri and Thuraiyur zamins and plain forest areas in Tiruchirappalli taluk. The terrain is generally flat and undulating excepting a few isolated hills.

Padugai Forests

These forests are scattered along the banks of rivers Cauvery and Coleroon and extend from a point about 40 kilometers south of Erode to Lower Anaicut. The average elevation of these forests lands varies from 70 to 80 metres above mean sea level.

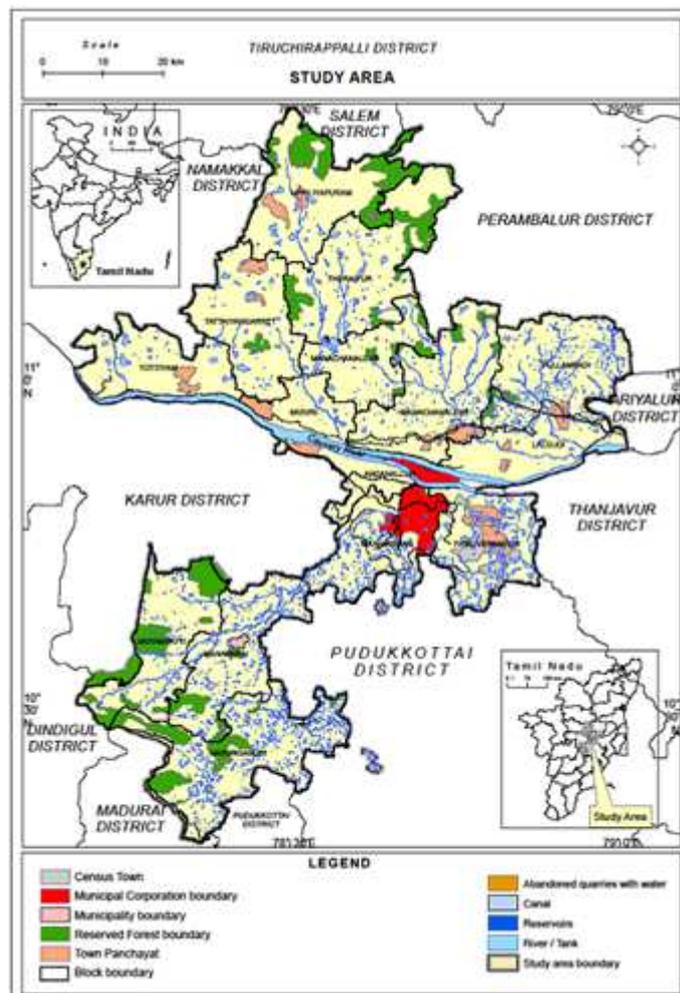


Figure 1: Location of the Study Area

METHODOLOGY

The present investigation was undertaken as a view to study the number of People from Tiruchirapalli Dt, Tamilnadu. A good number of aboriginal inhabitants at the study areas. These people maintaining their own identify in terms of cultural aspects. The field work in village areas is the most important part of all ethnobotanical studies. Before starting this work the necessary information's were collected through the revenue records. Mainly two methods were adapted in collecting Ethnobotanical information from people. The first step in Ethnobotanical work is to identify plants with the help of the local inhabitants and the details of population, area of distribution of the People. The second step is that the plants near the hamlets were collected and brought to the physician's house. Every plant was shown to him one after another and recorded utility of plants. The people are highly reserved, so the adequate information gathering is highly difficult from them. Although, both methods and steps were used in the present field work.

The first step is more promising as it is not necessary to collect all the plants of an area. Local names were recorded in variably for the species collected; these will be useful in referring to the same plants again. These filed visits were carried out with the help of local informants. With the help of highly experienced old tribal people the utility of plants which are found in and around the hamlets were collected and studied. The voucher specimens were collected and their local names were noted and the uses of parts such as leaves, fruits, roots etc were recored. The specimens were pressed with the help of blotting papers and news papers and then the specimens were poisoned. The right specimens were then made into herbarium.

The plant collected were given a field number identified with the help of Flora of the TN Carnatic and by comparing authentic sheets available in the Rapinate Herbarium of the St Josephs College. The specimens are pasted in herbarium boards and stitched with the help of thin threads. The data were labeled in herbarium boards. To each specimen a short description regarding the use and the method of application is noted. Plants are poisoned with the help of saturated solution containing 5 gms of mercuric chloride dissolved in one litre of rectified spirit.

The barks, fruits and dried inflorescence were preserved using saturated solution of 30% Formaldehyde, 10 gms of copper sulphate, 1 gm of mercuric chloride and 20 gms of Allum crystals. Seeds and millets were preserved with the help of saturated solution of methylated spirit and mercuric chloride. They were then placed in polythene bags. The herbarium specimens are deposited in the herbarium of the Department of Botany, Jamal Mohamed College, and Tiruchirapalli-20 for future reference. During the field trips photographs of the tribal hut, tribal people and some of the plants and their products were taken with the help of "PENTAX A-3000 Camera" for future reference.

RESULTS AND DISCUSSIONS

The result of this study have revealed 197 plants species belonging to 168 genera distributed in 78 families of these, highest number of species belongs to Fabaceae with 18 species, 13 species to Euphorbiaceae, 9 species to Acanthaceae and Asclepiadaceae each that are used for various purposes by herbalists, traditional healers and Forest dwellers of Tiruchirappalli district (table 1). The representing plants are mostly used to cure skin diseases, jaundice, cough, wounds, urinary problems and an antidote for poison bites. The life forms are analysed and found that there are 56 herbs (29%), 40 shrubs 57(29%), 48 trees (24%) and 36 Climbers (18%), out of 151 plants (figure 2)

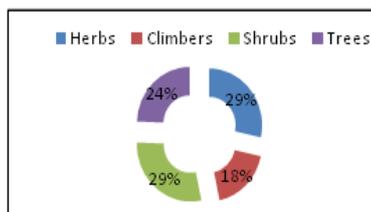


Figure 2: The Life Forms in the Study Area

Table 1

Sr. No	Botanical Name	Family Name	Vernacular Name	Part Used	Disease	Made of Administration
1	<i>Abrus precatorius</i> L.	Fabaceae	Kundumani	Root, leaf	Spematogenesis	4-5 Leaves and small root piece taken orally for a week time
2	<i>Abutilon indicum</i> (L.) Sweet.	Malvaceae	Thuthi	Leaf	Piels	Crushed leaves are applied
3	<i>Aegle marmelos</i> Linn.	Rutaceae	Vilvam	Leaf	Head ache	Leaf juice is boiled with coconut oil and massaged on the head
4	<i>Acacia caesia</i> (L.) Willd.	Mimosaceae	Seengaikodi	Stem Bark	Wounds	Bark is ground with water and applied topically over the affected part
5	<i>Acacia leucophloea</i> (Roxb.) Willd	Mimosaceae	Velval	Stem Bark	Wounds	Paste of fresh bark is applied topically on cuttings until cure
6	<i>Acalypha fruticosa</i> Forsskal.	Euphorbiaceae	chenni	Leaf	Dysentery	Decoction of leaves taken orally.
7	<i>Acalypha indica</i> L.	Euphorbiaceae	Kupaimeni	Whole Plant	jaundice	<i>Acalypha indica</i> and <i>Momordica charantia</i> whole plants taken in 1:1 ratio & extract is given for 10 days Doses of 5 and 3 table spoons for adult and children respectively.
8	<i>Acorus calamus</i> L.	Araceae	Vasambu	Rhizome	Stomachache	Dried rhizome is rubbed on stone with water and one or two drops of watery paste are given orally to the children for clarity of speech. Increased dosage will affect speech.
9	<i>Achyranthes aspera</i> L.	Amaranthaceae	Naiyuruvi	Root	Leucorhea	Root extract with goat milk is given once on alternate day for 10-15 days
10	<i>Adhatoda zeylanica</i> Medicus	Acanthaceae	Adathodai	Leaf	Asthma	Leaf paste is taken orally
11	<i>Aerva lanata</i> (L.) Juss.ex Schult	Amaranthaceae	Kulapoo	Whole Plant	kidney stone	Plant extract with <i>Cuminum cyminum</i> fruits and sugar is given for 10 – 15 days
12	<i>Ageratum conyzoides</i> L.	Astaraceae		Whole Plant	Stomach disorder	extract of the entire plant is taken
13	<i>Ailanthus excelsa</i> Roxb.	Simroubaceae	Penari	Stem Bark	Rheumatic	Stem bark warmed and applied
14	<i>Alangium salvifolium</i> (L.f.) Wangerin	Alanginaceae	Alingi	Stem Bark	Wounds and cuts	Bark powder with coconut oil applied
15	<i>Allium cepa</i> L.	Liliaceae	Vengayam	Bulb	High blood pressure	Eating onion bulbs regularly is useful

16	<i>Alpinia calcarata</i> Rosc.	Zingiberaceae	Arathai	Rhizome	To increase resistance power	Dried rhizome is mixed with water and two drops of juice are given orally to children. To induce fertility
17	<i>Alternanthera sessilis</i> (L.) R. Br. ex DC.	Amaranthaceae	Ponnakanni keerai	Leaf	Eyesight improvement	Leaf decoction given 2 times a day for 14-30 days to cure nervous disorders. The leaf juice is mixed with boiled cowmilk and given in morning on empty stomach to improve the eyesight.
18	<i>Aloe vera</i> Bum.f.	Xanthorrhoeaceae	Shothukathalai	Leaf	painful menstruation	Dried Aloe vera juice called 'Musambram'. added with jaggery and tablets of 1gm prepared taken twice a day
19	<i>Alstonia scholaris</i> (L.) R.Br.	Apocynaceae	Elilaipali	Stem	To increase lactation	Powdered stem is mixed with water and given orally to the mother.
20	<i>Amaranthus spinosus</i> Linn	Amaranthaceae	Mullukeerai	Leaf and Root	Stomach ulcer	Leaf paste along with lemon juice is taken with food to cure stomach ulcer
21	<i>Andrographis paniculata</i> (Burm.F.) Wall ex Nees	Acanthaceae	Nilavembu	Whole Plant	diabetes	Regular taking of plant powder taken after meal controls diabetes.
22	<i>Annona squamosa</i> L.	Annonaceae	Seethapazham	Leaf	Injuries and wounds.	Crushed leaf is applied
23	<i>Anisomeles malabarica</i> (L.)	Lamiaceae	Paimerati	Stem	Injuries and wounds.	Paste of stem is mixed with coconut oil and applied
24	<i>Argemone mexicana</i> Linn	Papaveraceae	Bremmathandu	Latex	Boils	Latex of the plant is applied topically on the site of boils
25	<i>Aristolochia indica</i> Linn.	Aristolochiaceae	Esvaramuli	Leaf	antidote against poison.	Leaf extract is mixed with coconut milk and taken orally
26	<i>Aristolochia bracteolata</i> Lam.	Aristolochiaceae	Aadutheendapalai	Root	syphilis, gonorrhoea, boils	The root powder is combined with honey and is given internally given
27	<i>Asystasia gangetica</i> (L.) T. Anderson.	Acanthaceae	Valukai keerai	Leaf	To stimulate appetite	Fresh leaves are cooked with cumin seeds and onion bulbs and taken orally with food
28	<i>Atalantia monophylla</i> Cor	Rutaceae	Kattu elemitchai	Leaf	Rheumatoid pain and glandular swelling	The leaves are boiled with water externally
29	<i>Asparagus racemosus</i> Willd	Asparagaceae	Thannirvitan Kilangu	Whole Plant	Breast ulcer	For a dose 6 spoonful of juice of using portion of <i>Asparagus racemosus</i> was milk and given to take. The dose was continued for week
30	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Vembu	Leaf & Root	leprosy and leucoderma.	The leaves and root extract applied directly
31	<i>Azima tetragantha</i> Lamk	Salvadoraceae	Sangilai	Leaf	Cold and cough	Decoction prepared from leaves and is taken orally to treat cold and cough
32	<i>Balanophora fungosa</i> Fors and Fors.	Balanophoraceae	Vaer chedi	Whole Plant	Skin diseases	Paste of the whole plant is applied over the infected part of the skin.
33	<i>Bombax ceiba</i> L.	Bombacaceae	Mul Ilavam	Flower	Mouth ulcers.	Flower is used for making curry and given in mouth ulcers.
34	<i>Barleria prionitis</i>	Acanthaceae	Kattukanahambaram	Leaf	cataract and fever	The juice of the leaf is used to treatment
35	<i>Bauhinia retusa</i> Ham	Fabaceae	Aathi	Leaves and fibres	Fever	Leaves are fumigated and inhaled to get relief from fever. The stem fibres are used in cord production.
36	<i>Bauhinia variegata</i> L.	Fabaceae	Mali athi	Stem bark	Skin diseases	Paste of the Stem bark is applied over the infected part of the skin.
37	<i>Blepharis maderaspatensis</i> (L.) Roth.	Acanthaceae	Nethirampoindu	Leaf	Nervous disorders	Leaf paste is mixed with the powdered black gram, crushed onion and white yolk of one egg and the mixture is applied topically over the fractured bones.
38	<i>Bischofia javanica</i> Blume.	Bischofiaceae	Romaviruksha pattai	Stem	To stimulate Hair growth	Stem bark is mixed with coconut oil and applied over head.
39	<i>Borreria verticillata</i> (L.)	Rubiaceae	Nathaisuri	Root	leucorrhoeas and gonorrhoeas	The tea forms of the root decoction
40	<i>Boerhaavia diffusa</i> Linn.	Nyctaginaceae	Mukiratai	Root	dyspepsia, jaundice,	The tea forms of the root decoction

41	<i>Butea monosperma</i> (Lamk.)	Fabaceae	Purasu	Flower	Skin diseases	An extract of the flowers is applied over the infected part of the skin.
42	<i>Cadaba fruticosa</i> (L.) Druce	Capparidaceae	Vizhuthi	Leaf	general body pain	The leaf juice is internally used
43	<i>Canthium dicoccum</i> (Gaertn.)	Rubiaceae	Naluvai	Stem Bark	Bone fracture	Crushed,made into paste and applied as poultice
44	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakathan	Leaf	joint pain	Paste of leaves with onion and coconut oil is taken orally for joint pain
45	<i>Carmona retusa</i> (Vahl) Masam.	Boraginaceae	Kurangu vetthilai	Leaf	To induce fertility	Juice of leaves is taken internally for three to four months.
46	<i>Carica papaya</i> L.	Caricaceae	Papaya	Leaf	malaria	Juice of leaves is taken orally
47	<i>Carissa carandas</i> Linn.	Apocynaceae	Kila	Leaf	antidote against poison.	Leaf extract is mixed with coconut milk and taken orally
48	<i>Cassia alata</i>	Fabaceae	Cheemaigathi	Leaf Flower	skinrashes	The leaf and flower extracts are used as a remedy for skin rashes
49	<i>Cassia absus</i> L.	Fabaceae		Seed	Eye disorder.	The seed powder is put it in eye
50	<i>Cassia fistula</i> L.	Fabaceae	sarakondrai	Stem Bark & Leaf	Bone fracture	Mixture of stem bark scrapping and leaf sap as poultice
51	<i>Cassia occidentalis</i> L.	Fabaceae	Ponnavarai	Leaf	Bone fracture, nerve dislocation	Fresh leaves were homogenized and mixed with gingelly oil and applied on the affected part
52	<i>Calotropis gigantea</i> (L.) Ait.	Asclepiadaceae	Erukku	Flower	arthritis	Flowers warmed and tied on feet overnight
53	<i>Cassia auriculata</i> L.	Fabaceae	Avarai	Gum & Leaf	diabetes	Gum and dried leaves and flowers are given one teaspoon.
54	<i>Calophyllum inophyllum</i> Linn.	Guttiferae	Punnai	Seeds	wounds and scabies	The oil of the seeds and roots apply directly
55	<i>Capparis sepiana</i> Linn	Capparidaceae	Sengathari	Leaf	Swellings	Leaves are pasted with lemon juice and are applied topically to treat swellings
56	<i>Cassia obtusifolia</i> (L.)	Caesalpiniaceae	Thagarai	Leaf	Itch	Leaf juice applied.
57	<i>Catharanthus roseus</i> (L.) G.Don	Apocynaceae	Sudukattu arali	Leaf	anti-diabetic	Eating 4 to 6 leaves daily.
58	<i>Centella asiatica</i> (L.) Urban.	Umbelliferae	Vallarai	Leaf	Jaundice	Juice of leaf is mixed with equal amount of goat's milk and taken orally for seven days
59	<i>Ceropegia candelabrum</i> L.	Asclepiadaceae	Perukodi	Leaf	head ache	Paste of leaves is applied on forehead.
60	<i>Cipadessa baccifera</i> (Roth.) Miq.	Meliaceae	Pulippan chedi	Leaf	Diarrhoea	Paste of leaves is mixed with the cup of water or milk and taken orally.
61	<i>Cissampelos pareira</i> L.	Menispermaceae	Malain Thanke	Root	Stomach ache	Root powder given early in the omingwith2-3 tea spoonful honey for stomach ulcers. Root decoction given in early morning for 15 days in severe stomach ache (50- 110 ml prescribed)
62	<i>Cissus quadrangularis</i> L.	Vitaceae	Pirandai	Stem	Piels	1gm of powdered stem mixed with sugar or ghee taken for 2 to 3 weeks.
63	<i>Clitoria tematea</i> L.	Fabaceae	Sangu puspam	Root	head ache	Root juice put in the nose control head ache.
64	<i>Clausena dentata</i> (Willd.) Roem.	Rutaceae	Aanan	Leaf	wounds	Paste of leaves is applied over the affected parts
65	<i>Clerodendrum phlomidis</i> Linn.	Verbenaceae	Thaluthalai	Leaf	mental tension and mental disturbance	fresh juice of the leaves

66	<i>Cleome gynandra</i> Linn	Capparidaceae	Thaivelai	Leaf	headache, epileptic fits and ear ache.	Sap from leaves
67	<i>Cocculus hirsutus</i> (L.) Theob.	Menispermaceae	Kattukodi	Leaf	headache, ringworm, wounds and cuts	Leaf juice is applied externally on forehead and affected area
68	<i>Croton bonplandianum</i> Morang.	Euphorbiaceae	Railpoondu	Latex	Wasp sting	Plant latex is applied externally on the site of wasp sting
69	<i>Curcuma domestica</i>	Zingiberaceae	Manjal	Rhizome	Breast ulcer	For a dose about 2 inches of using portion of <i>Curcuma domestica</i> and 3 leaves of <i>Solanum stramonium</i> were crushed together and applied
70	<i>Curculigo orchioidea</i> Gaertn	Hypoxidaceae	Nilappanai	leaf	increase sperm	The leaf paste taken internally to increase sperm count
71	<i>Cyperus rotundus</i> Linn	Cyperaceae	Koraipul	Tubers	leucorrhoea.	Dried tubers are made into paste, mixed with honey and taken orally
72	<i>Cynodon dactylon</i> Pers.	Poaceae	Arugampul	Whole plant	kidney stone	Whole plant extract 10 -20 ml taken orally for 8 -10 days .
73	<i>Datura metel</i> L.	Solanaceae	Karumathai	Leaf, Root, Fruits	joint pain, pimples	Leaf dipped 'Ricinus communis' oil warmed and is applied externally. Root paste applied externally to cure pimples
74	<i>Decalepis hamiltonii</i> Wight. & Arn.	Asclepiadaceae	Mahaali kizhanku,	Root	health tonic	Root extract is taken orally
75	<i>Deonix elata</i> (Linn.) Gamble	Caesalpiniaceae	Vatharayanan	Leaf	rheumatic	Leaves warmed with pepper, grind to prepare pills taken inside
76	<i>Dendrophthoe falcata</i> (L.f.) Etting.	Loranthaceae	Kadalathi	Twig	reduce sterility	Tender twigs with <i>Ficus racemosa</i> bark power crushed with mixed with goat milk is taken 20 -30 ml.
77	<i>Demis scandens</i> (Roxb.) Benth	Fabaceae		Stem	rheumatic pains	Tender stems and twigs crushed, warmed and applied
78	<i>Dichrostachys cinerea</i> , (L.)	Mimosaceae	Vitattalai	Leaf, Flower	cures ulcer, indigestion,	Air-dried leaf and flower of the plant made as choomam mixed with honey and taken before food
79	<i>Diospyros melanoxyloides</i> Roxb.	Ebenaceae	Peedi Elai	Leaf	bone fractures.	Along with white layer of egg, calcium and turmeric ground and the mixture applied on fracture and bandaged with cloth
80	<i>Dioscorea oppositifolia</i> L.	Dioscoreaceae	Valli kilangu	Rhizome	Stomachache	Paste of rhizome is taken internally.
81	<i>Diplocyclos palmatus</i> (L.) C. Jeffrey.	Cucurbitaceae	Lingam kai	seed	promote fertility	Half teaspoon of seeds taken once a day for 10 -15 days.
82	<i>Dodonea viscosa</i> (L.) Jacq.	Sapindaceae	Virali	Leaf	bone fracture	Leaves mixed with 'turmeric' and oil crushed together and applied.
83	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Kanjankorai	Leaf	jaundice	Leaf curry is useful to purify the blood and reduce the white hairs leaves are also used.
84	<i>Elettaria cardamomum</i> (L.)	Zingiberaceae	Yelakkai	Fruits	Stomachache	Dried fruits are taken internally with food.
85	<i>Elytraria acaulis</i> Linn	Acanthaceae	Nilakadambu	The whole plant	deworming	Paste of the whole plant is applied over the infected part of the skin.
86	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae	Nelli	Fruits	anti allergic	Fruits and jaggery taken in same proportion crushed and mixed taken as anti allergic.
87	<i>Enicostemma littorale</i> Blume	Gentianaceae	Vellerugu	Leaf	rheumatism, abdominal ulcers,	The decoctions attained from the leaves
88	<i>Eucalyptus</i> sp	Myrtaceae	Thailamaram	Leaf	Cough	Decoction, inhalation of vapors
89	<i>Euphorbia antiquorum</i> L.	Euphorbiaceae	Sathurakalli	Stem	Nervous disorders	Stem latex is applied topically on skin to get relief from body pain.
90	<i>Euphorbia heterophylla</i>	Euphorbiaceae	Gamalkota	Leaf	constipation	Eating leaf curry

91	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Amman pacharisi	Leaf	wounds and mouth ulcers	Crushed leaf are applied.
92	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	Thirukalli	Latex	kintarot	Rubbing with latex and dressing
93	<i>Evolvulus alsinoides</i> L.	Convolvulaceae	Visnukiranthi	Whole Plant	Cough, cold,	Whole plant decoction administered 2-3 times a day to cure cough and cold.
94	<i>Erythrina variegata</i> L.	Papilionaceae	Kalyanamurungai	Leaf and Stem	Cure piles during pregnancy	Leaf and stem bark made into a and mixed well (1:1) 2 to 3 spoon powder mixed with boiled cow milk and given to cure piles during pregnancy. Leaf juice given to cure whooping cough of children.
95	<i>Ficus benghalensis</i> L.	Moraceae	Alamarum	Latex	Stomach pain	Latex mixed with turmeric powder and tablets prepared
96	<i>Ficus racemosa</i> L.	Moraceae		Latex	Piles and diarrhea.	Latex is directly applied
97	<i>Ficus hispida</i> L. F	Moraceae	Peiatti	Stem bark	monorrhagia	2-3 gm of stem bark powder taken twice a day for 5-7 days.
98	<i>Ficus retusa</i> Linn.	Moraceae	Athimaram	Leaf and fruit	Diabetes, bone fracture cold, swellings	Paste of Leaf along with their fruit combined with cumin is taken orally to cure swellings, Lung blockage. It is best for treat diabetes and applied topically over the fractured bones.
99	<i>Ficus religiosa</i> Roxb.	Moraceae	Arasamaram	Bark	gonorrhea and scabies	Bark decoction
100	<i>Gloriosa superba</i> L.	Colchiaceae	Kalapai Kilangu	Stem	wounds	Stem past applied
101	<i>Glycosmis pentaphylla</i> correa	Rutaceae	Molehulukki	root	Asthma.	The root is pasted with cumin and taken internally
102	<i>Gmelina arborea</i> Roxb	Verbenaceae	Kumilamaram	Root	Piels	uice of root bark is taken internally.
103	<i>Grewia tiliifolia</i> Vahl	Tiliaceae	Thadasu maram	Stem bark	Mental illness.	The decoction of bark is apply all over the head before taking bath to treat mental illness
104	<i>Gossypium herbaceum</i> L.	Malvaceae	Paruthi	Leaf	wounds caused by rat bite	leaves crushed with rice washed water (locally known as 'Kalneer')
105	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Schultes.	Asclepiadaceae	Sirukurunjan	Leaf	Diabetes	Powdered leaves are mixed with cow's milk and boiled rice, kept over night and taken internally twice a day.
106	<i>Hemidesmus indicus</i> (L.) Schult.	Asclepiadaceae	Nannari	Root	tonic, cooling and blood purifier	Root boiled in water or milk.
107	<i>Helicteres isora</i> Linn. (P123)	Sterculaceae	Vallampurikai	Root	cuts and wounds.	The decoction of the root is mixed with turmeric powder and is applied externally
108	<i>Heteropogon contortus</i> L.	Poaceae		Whole plant	Scorpion bite.	An oil extract of this plant is used
109	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Ulmaceae	Aavi	Root bark	rheumatism.	Root bark warmed and applied
110	<i>Hibiscus rosa-sinensis</i> Linn	Malvaceae	Semparuthi	Flower	alopecia.	The soaked petal along with coconut oil is externally apply
111	<i>Hybanthes enneaspemus</i> (L).	Violaceae	Orithalthamarai	Root	Urinary problems	The decoction of the root taken Orally
112	<i>Indigofera aspalathoides</i> Vahl	Fabaceae	Shivanar vembu	root	psoriasis	The roots soak with coconut oil externally apply
113	<i>Ipomoea obscura</i> (L.)	Convolvulaceae	Cirutali	Whole plant	cure cold, asthma and dry cough.	The fresh plant extract is mixed with gingely oil and is used
114	<i>Ixora coccinea</i> Linn	Rubiaceae	Idlipoo	Flower	dysentery,	The decoction yielded from the flowers taken early in the morning
115	<i>Jasminum angustifolium</i> Vahl.	Oleaceae	Kattu mallige	Leaf	Diahroea	The leaf is boiled in water and taken with food to cure diahroea
116	<i>Jatropha curcas</i> L.	Euphorbiaceae		Leaf	Ear ache	2-3 days of latex was installed in the ear
117	<i>Jatropha gossypifolia</i> .	Euphorbiaceae	Adali	Fruits	teeth problem	fruit powder is applied
118	<i>Justicia simplex</i> D.Don	Acanthaceae	Odivuatiki	Leaf	bone fracture	The leaf extract is externally applied
119	<i>Lannea coromandelica</i> (Houtt.) Merr.	Anacardiaceae	Udian	Bark	bone fracture	Bark is used as a bandage
120	<i>Lantana camera</i> Linn	Verbenaceae	Unichedi	Leaf	Wound healing	Leaf paste is applied topically to treat wounds
121	<i>Lantana whitiana</i> Wall.	Verbenaceae	Vellai Unichedi	Leaf	Skin disease	The leaf is ground with Cipadessa baccifera root, leaf and bark & applied topically to treat Psoriasis
122	<i>Lawsonia inermis</i> L.	Lythraceae	Maruthani	Leaf	tuberculosis	Hand full of tender leafs added with 7 seeds of Piper nigrum crushed and taken early in the morning daily for 2 -3 weeks)
123	<i>Leucas aspera</i> (L.) R.Br. ex Vatke	Lamiaceae	Thumabai	Leaf	jaundice	50gm of leaves are crushed well water is given orally once a day for 5-8 days.
124	<i>Mangifera indica</i> L.	Anacardiaceae	Mamarum	Stem bark	cooling	Bark juice 10 -20 ml given orally.
125	<i>Martynia annua</i> L.	Martyniaceae	Thelkodukku	Leaf	sore throat	Leaf decoction gargled twice a day.

126	<i>Melia azedarach</i> L.	Meliaceae	Malivembu	Leaf	Fever	The leaves extracts and applied
127	<i>Mimosa pudica</i> L.	Mimosaceae	Thotasurungi	Leaf	headache, migraine,	The leaves extracts and applied
128	<i>Momordica charantia</i> L.	Cucurbitaceae	Paharkai	Leaf	Piels	Leaf or fruit is added with 20 gm sugar and given twice in a day regularly till cure.
129	<i>Moringa oleifera</i> Lam.	Moringaceae	Murungai	Leaf	spermatogenesis	Curry of leaves and fruits eaten to promote.
130	<i>Mucuna pruriens</i> L. DC.	Fabaceae	Poonaicali	seed	Male sterility and nervous diseases	The dried seed is boiled with cow milk and then the seed is dried in sunshade, after which the seed is powdered and combined with cow milk
131	<i>Mollugo cerviana</i> (L.) Seringe	Molluginaceae		Whole Plant	ladies after child birth to clear the uterus	Plant is cooked as vegetable
132	<i>Mahonia leschenaultii</i> (Wight & Arn.)	Berberidaceae	Mullu kadambu	Stem	Body pain	Powdered stem bark is boiled with gingelly oil and applied over the body before bath.
133	<i>Mitragyna parviflora</i> (Roxb.) Korth.	Rubiaceae	Neerkadambu	Seed	Head ache	Seed paste is applied on forehead
134	<i>Mukia maderaspatana</i> (L.) M. Roemer	Cucurbitaceae	Musumusukai	Leaf, Fruit	pitham and body stimulation	Leaf extract used against pitha disease Fruit decoction given to children to improve memory (about 10-15 ml only). Leaf juice mixed with food given for body stimulation
135	<i>Murraya koenigii</i> (L.) Spr.	Rutaceae	Karuvepilai	Leaf	diarrhea	Leaf decoction 10- 15 ml thrice.
136	<i>Murraya paniculata</i> (L) Jack.	Rutaceae	Kattu Karuvepilai	Leaf	Wounds	The leaf paste is applied over the wounds to heal
137	<i>Ocimum basilicum</i> L.	Lamiaceae	Thiruneetrapachilai	Leaf	ear ache	3-5 drops of leaf juice is put in ear.
138	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Tulasi	Leaf	cough, fever and skin disease	Leaf juice taken as a blood purifier and also helpful in cough, fever and skin disease.
139	<i>Oxalis corniculata</i> L.	Oxalidaceae	Puliarai	Whole plant	wounds	Whole plant paste is applied.
140	<i>Pandanus amaryllifolius</i>	Pandanaceae	Thazham poo	Stem	jaundice	Tender shoots are directly eaten
141	<i>Pedaliium murex</i> L.	Pedaliaceae	Yanai Nerungil	Whole plant	reducing heat, urinary problems and kidney stones	*Plant dipped in half liter of water and kept for 5-10 minutes. The water turns into the viscous fluid in which sugar is added and take orally.
142	<i>Peristrophe paniculata</i> (Forsk.) Brumit	Acanthaceae		Shoot	Bone fracture	Along with white layer of egg, calcium and turmeric ground and the mixture applied on fracture and bandaged with cloth
143	<i>Plectranthus coleoides</i> Benth.	Lamiaceae	Omavalli	Leaf	To reduce delivery time pain	Leaf juice is taken internally by pregnant women.
144	<i>Pergularia daemia</i> (Fors.) Chiov	Asclepiadaceae	Veliparuthi	Leaf	Head ache	Fresh leaves are boiled with water and the vapour is inhaled.
145	<i>Phyllanthus niruri</i> L.	Euphorbiaceae	Keelanelli	Whole plant	jaundice and leucorrhea	Whole plant crushed and tablets are prepared, taken twice a day for 10 days.
146	<i>Phyllanthus reticulatus</i> Poir.	Euphorbiaceae		Leaf	Bone fracture	Along with seeds of <i>Vigna mungo</i> , <i>Trigonella foenum graecum</i> , white layer of egg, calcium and turmeric ground, mixture applied externally and bandaged
147	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Chithramulam	Root	fever	Roots crushed and applied on back bone reduces fever (massaged over the back bone).
148	<i>Pithecolobium dulce</i> Benth.	Fabaceae	Kodukapuli	Fruits	fever	The edible fruits of this species reduces fever
149	<i>Piper betle</i> Linn.	Piperaceae	Vettilai	Leaf	digestive, stimulative, carminative	Betel leaves are used for chewing
150	<i>Piper nigrum</i> L.	Piperaceae	Milagu	Seeds	Throat infection	The dried seeds are taken orally.

151	<i>Polygala javana</i> DC.	Polygalaceae	Periyankai	Whole plant	dog bite.	Whole plant is pounded with urine and given Orally
152	<i>Polyalthia cerasoides</i> (Roxb.) Bedd.	Annonaceae	Naramamidi	Stem Bark	Bone fracture	Along with calcium and turmeric ground made into paste and mixture applied on fracture and bandaged with cloth
153	<i>Pongamia pinnata</i> (L.) Pierre.	Fabaceae	Pungamaram	Stem	tooth ache	* Stem is used as tooth brush.
154	<i>Pouzolzia zeylanica</i> (L.)	Urticaceae		Stem	Bone fracture	Crushed, paste applied as poultice
155	<i>Psidium guajava</i> L.	Myrtaceae	Kooya	Leaf	diabetes	* 4-5 leaves Soaked in water for over night and taken early in the morning or the decoction of the leaves taken.
156	<i>Pterolobium hexapetalum</i> (Roth.) Sant. & Wagh.	Caesalpiniaceae	Kari indu	leaf	To reduce delivery time pain	Decoction of leaves is taken internally by pregnant women.
157	<i>Punica granatum</i> L.	Punicaceae	Madulai	Bark & root	cooling	'Sharbat' prepared by bark and root.
158	<i>Randia dumetorum</i> (Retz.) Poir.,	Rubiaceae	Madukarai	Leaf Stem Root & Fruit	dog bite	Leaf, stem, root, and fruit are useful in reducing poison in the body and also useful in treating dog bite.
159	<i>Raphanus sativus</i> L.	Brassicaceae	Mullangi	Seed	irregular menstruce	Seed powder given orally for 1 week twice a day
160	<i>Rauvolfia serpentina</i>	Apocynaceae		Root	Rheumatism	Decoction
161	<i>Rhinacanthus nasutus</i> (L.)	Acanthaceae	Nagamalli	Root	ring worm and skin diseases	The root powder is combined with lime juice and is applied directly
162	<i>Ricinus communis</i> L.	Euphorbiaceae	Katamanakku	Root	Rheumatism	Juice of root is taken orally
163	<i>Rubia cordifolia</i> L.	Rubiaceae	Kalutharupan chedi	Root	Heel cracks	Root paste is applied topically on heel before going to bed
164	<i>Santalum album</i> Linn	Santalaceae	Santhanamaram	Tender twig	Urinary tract infection and diabetes	The paste of tender twig mixed with the juice of <i>Phyllanthus emblica</i> are taken orally to treat urinary tract infection and it is best for diabetes
165	<i>Sapindus emarginatus</i> Vahl.	Sapindaceae	Ponthikottai	Fruits	hair tonic	Fruits used for hair wash.
166	<i>Sarcostemma intermedium</i> (L.) R.Br.	Asclepiadaceae	Kodikalli	Whole plant	cooling	*Whole plant taken directly as cooling.
167	<i>Scoparia dulcis</i> Linn.	Scrophulariaceae	Sarkaraivembu	Leaf	diabetes and hypertension.	The leaf extract taken with 100 ml 3 times daily
168	<i>Sesbania aegyptiaca</i> Pers	Fabaceae		Tender twig and seed	Problems in hair growth and body heat	Tender twig and seeds are infused with coconut oil and applied topically on the hair regularly for healthy and black hair
169	<i>Sida acuta</i> Burm. f.	Malvaceae	Pilla valatthi chedi.	Leaf	To stimulate Hair growth	Paste of leaves is mixed with coconut oil and applied on head regularly for killing dandruffs and also for strengthening hair.
170	<i>Sida cordifolia</i> Linn.	Malvaceae	Sitramuti	Leaf	stomatitis, blenorrhea,	The juice taken from fresh leaves
171	<i>Sida Rhombifolia</i> L.	Malvaceae	Aruvalmanipoondu	Root	leucorrhea	One tablespoonful root powder with sugar and milk.
172	<i>Solanum trilobatum</i> L.	Solanaceae	Thoodhuvai	Leaf	Asthma	Juice of leaves is taken orally for seven days
173	<i>Solanum nigrum</i> L.	Solanaceae	Manathakkali	Fruits	liver infection	Fruits directly taken.
174	<i>Solanum surattrense</i> Burm. f.	Solanaceae	Kandangkathiri	Fruits	Toothache	Fresh or dried fruits are kept in fire and the smoke is inhaled with mouth.
175	<i>Spilanthes calva</i> Wt.	Asteraceae	Vettu marunthu chedi	Flower	Tooth ache	Fresh flower directly applied

176	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Navel	Fruits	kidney stone	Fruits directly eaten. da)
177	<i>Tabernaemontana divaricata</i> (L.) R.Br	Apocynaceae	Nanthiavattai	Root	skin diseases and body heat	Root powder is used for skin diseases and reduces body heat.
178	<i>Tectona grandis</i> L.f.	Verbenaceae	Thekku	Bark & wood	cramps and rheumatism	Bark and wood power is warmed with water and taken 20-30ml orally.
179	<i>Thespesia populanea</i> Cav.	Malvaceae	Poovarasam	Bark & wood	skin and liver diseases	The decoction of the bark is commonly used for the treatment of skin and liver diseases
180	<i>Tephrosia purpurea</i> (L.) Pers	Fabaceae	Kolingi	Whole plant	liver disease, paralysis	The whole plant powder with curd taken 20-30 ml orally.
181	<i>Terminalia arjuna</i> Roth.	Combretaceae	Neemaruthu	Bark	chest pain	Half teaspoon dry bark powder taken with water twice a day for week.
182	<i>Terminalia chebula</i> Retz.	Combretaceae	Kadukai	Fruits	cold	Powdered fruit is mixed with water or cow's or goat's milk and taken internally.
183	<i>Terminalia bellarica</i> Roxb.	Combretaceae	Thaanthi maram	Bark and root	Skin diseases	The bark and root are grind & took extract, which is applied topically to treat unnecessary peelings on the skin.
184	<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook. f & Thoms.	Menispermaceae	Seenthil Kodi	Leaf	fever	Leaf extract or leaf juice with honey taken twice a day for 2-3 days.
185	<i>Toddalia asiatica</i> (L.) Lam.	Rutaceae	Kindu mulu	Leaf	stomach pain	Decoction of leaves is given internally
186	<i>Trianthema portulacastrum</i> L	Aizoceae	Saranai	Leaf	jaundice	Leaf juice with 30ml curd taken.
187	<i>Trichodesma indicum</i> R. Br.	Boraginaceae	Kavilthumbai	Whole plant	emollient and diuretic.	5gm of whole plant with crushed in water and 20-30 ml taken twice a day for 15 days.
188	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Nerungil	Whole plant	arthritis rheumatism	5gm of whole plant with 1 to 2 gm of ginger crushed in water and 20-30 ml taken twice a day for 15 days.
189	<i>Tridax procumbens</i> Linn.	Astaraceae	Vettukayapoondu	Leaf	Wound healings	Leaf juice is applied topically on wounds
190	<i>Tylophora indica</i> (Burn . F) Merr.	Asclepiadaceae		Whole plant	antitoxic	plant juice is use taken as a antitoxic for any toxin.
191	<i>Vitex negundo</i> L.	Verbenaceae	Nochi	Root	joint pain	40-50 ml of root juice taken two times daily.
192	<i>Vigna mungo</i> Linn.	Fabaceae	Ulundhu	Seeds	Mastitis	About 100 gms of V. mungo are soaked for 12 hours and allowed to sprout. Then 2 inches of rhizome of <i>Zingiber officinale</i> was cleaned properly and cut into small pieces. The mixture is given to take.
193	<i>Wattakaka valubilis</i> (L.f.) Stapf	Asclepiadaceae	kodipalai	Leaf	dog bite	Single leaf with 4 <i>Piper nigrum</i> seeds and plant juice of <i>Achyranthes aspera</i> is taken 30-40 ml thrice to treat snake bite. Three doses are to be given after the interval of 30 minutes.
194	<i>Withania somnifera</i> L. Dunal	Solanaceae	Ashwagandha	Root	adenopathy, arthritis, asthma, hypertension, inflammations	The root powder boiled with cow milk is internally
195	<i>Zehneria scabra</i>	Astaraceae	Agasakarudan	Leaf and Stem	cold and fever	Leaves and stem are boiled and the vapour is inhaled and bathing
196	<i>Zizyphus mauritiana</i> Linn	Rhamnaceae	Ilandai	Leaf	Paralyze	Paste of leaf along with the leaves of <i>Ailanthus excelsa</i> Roxb. is taken internally as well as topically to treat paralyze
197	<i>Zingiber officinale</i> Rosc	Zingiberaceae	Ingi	Rhizome	stomachache	Chewing rhizome

Leaves are the most widely (45%) used plant part of the reported medicinal plants, followed by roots (11%), whole plant (11%) Bark (10%) Stem (6%) fruit (5%) and seed (4%). A majority of remedies are prepared in the form of extract or juice followed by paste, powder form, decoction and from freshly collected plant parts. For few remedies, medicines are prepared after drying and the administration includes inhalation, oral administration and Most of the ailment such as skin diseases, dog bites and wounds can be cured by external application and internal consumption of the preparations were also involved in the treatment of diseases like stomachache, diarrhoea and urinary problems. The local people of the tiruchirappalli district prescribed the medicinally important plants either as single or as in combination with other plants to cure suffering of the people from illness.

An interesting observation was that some of the documented medicinal plants such as *Acorus calamus* L., *Aerva lanata* (L.) Juss.ex Schult, *Andrographis paniculata*, *Cassia alata* and *Amaranthus spinosus* Linn. were found to be practiced as important medicinal plants in study area for the treatment of diseases like kidney stone, diabetes, headache, dysentery and stomach ulcer, and skinrashes. It is observed from the study that, most of the rural people in this area cultivate some of the common medicinal plants in their home gardens either for medicinal use or for use as vegetables which play a significant role among them and indicated that, the study area has a wide spectrum of medicinal plants to treat various human ailments.

CONCLUSIONS

This study provides an ethnobotanical data of the medicinal plants used by the people to cure different diseases. Thus, the purpose of standardizing traditional remedies is essential to ensure therapeutic efficacy where the value of ethnomedicinal information in modern pharmacology lies in the development of new drugs. It may be some significance that this study generated a broad spectrum of information concerning the use of medicinal plants by local people.

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