



Original Research Article

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Ethno-botanical Study of Selected Sacred Groves in Cuddalore and Villupuram Districts, Tamil Nadu, India

S. Karthik*, M. Subramanian, S. Ravikumar and R. Dhamotharan

P.G. and Research Department of Plant Biology and Plant Biotechnology, Presidency College (Autonomous), Kamarajar Road, Chennai-600 005, Tamil Nadu, India

*Corresponding author.

Abstract

An ethno-botanical study was carried out to document the medicinal plants in two districts of Cuddalore and Villupuram. The sacred groves of Dhanam (DM), Edaicheruvi (EI), Konalavadi (KI), Kuthanur (KR), M.Parur (MR), Murarbad (MD), Pallavadi (PI), Siruvambur (SR), Udaiyanachi (UI), V.Palaiyam (VM), Veerapaiyangara (VIM), Visalur (VR) were studied. 94 medicinal plant species were identified. The plants include trees (38%), shrubs (5%), herbs (26%), and climbers (1%), parasites (2%) and lianas (28%). A total of 94 identified plant species belonged to 84 genera and 47 families. Sacred groves are a small area of forest protected by the local people. It is one of the rich biodiversity spots wherein rare plants, animal, and medicinal plants are established in reserved forests. The local people believe that their ancestors have been lived in the grove. That is the major reason that has been observed in the present study that the local people are not taking the fallen trees and twigs from the sacred groves.

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Diseases
Ethnobotany
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Introduction

The knowledge of ethno-botany predates the history of civilization. The ancient people, by a process of trial and error, had classified edible and non edible plants growing in the forest. However, the information available on this subject is meager and the study of ethnobotany is still in infancy. It has been established that the study of ethno-botany can play an important role in both scientific and socio-cultural studies. The ancient Indian medical system of Ayurveda has studied the medicinal properties of plants. Even modern medicine has adopted some of the plants and their extracts recommended by Ayurveda. India due to its diversity of soil and climatic conditions plays host to a number of medicinal plants. To list a few species among them are: tulsi, neem, amla, hibiscus, curry leaf, coriander, ginger, capsicum, pepper, garlic, onion, tonebreaker, black night shade plant, five-leave chaste tree, castor oil plant, cuscus grass, fenugreek,

drumstick, datura, henna, Adathoda, gloriosa lily, spiny amaranth, beetle leaf, Indian aloe and Bermuda grass, etc. (Rajkuamr et al., 2014).

The sacred groves are a unique repository of rare species and medicinal plants which have been preserved through the ages due to ancient customs, taboos and respect for nature. The local communities themselves manage the sacred groves. Thus, the sacred groves represent the most important ecological tradition of ancient India. The sacred groves contain the ancient secrets and remedies of herbs and traditional medicine. There is a felt need to document this vast knowledge that is available in the sacred groves. Thus, the study of ethno-botany assumes much significance (Amirthalingam, 2012).

India has more than three thousand years of experience of experimenting with medicinal plants. All sections of the population have made use of these folk medications.

The local communities depend on the sacred groves not only for their medicinal needs but also for timber, wood and non-timber forest products (Pushpangadan, 1995). This knowledge of traditional medicine has largely been forgotten due to the quick results shown by the allopathic medicines. However, in recent times, this traditional knowledge is being revived and has an increasing number of adherents. The present study was carried out with the objective of documenting the indigenous medicinal plants used by the local communities for the treatment of various illnesses.

Materials and methods

Study Area

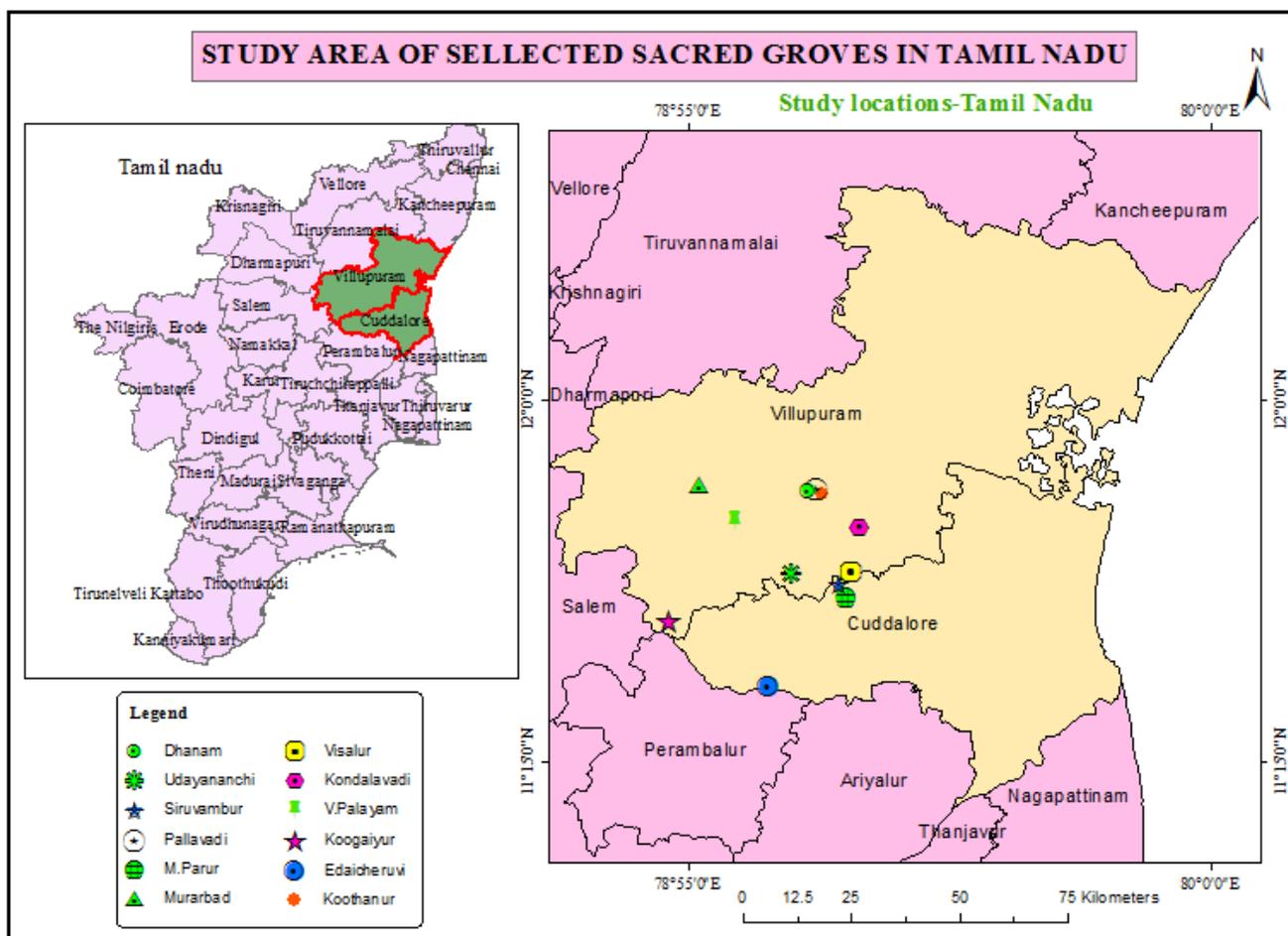
For the purpose of the study twelve sacred groves from Cuddalore and Villupuram districts were selected. These include: Dhanam (DM), Edaicheruvi (EI), Konalavadi (KI), Kuthanur (KR), M.Parur (MR), Murarbad (MD), Pallavadi (PI), Siruvambur (SR), Udaiyanachi (UI),

V.Palaiyam (VM), Veerapaiyangara (VIM) and Visalur (VR) (Fig. 1).

Data collection

Knowledge of medicinal plants was obtained from the local communities who have imbibed many generations of knowledge on this subject. Documentation of medicinal plants was gathered from the local people who were having a treasure of knowledge on medicinal plants. Plants were collected and identified using the standard Floras of Gamble (1915-1936), Matthew (1982, 1983 and 1988), Nair and Henry (1983), Henry et al. (1987 and 1989), Sanjappa (1992), Balakrishnan and Chakraborty (2007), Karthikeyan et al. (2009) have also been referred for the correct botanical names for the specimens identified. The herbarium was also prepared for all the plants and has been deposited in the Presidency College, Chennai. The details of the plant including their vernacular name, useful part and medicinal uses were tabulated.

Fig. 1: Distribution of sacred grove study sites in Villupuram and Cuddalore districts of Tamil Nadu.



Results

A total of 94 medicinal plant species belonging to 47 families were collected from twelve sacred groves of the

study area with the help of traditional healers and the local communities (Fig. 2). They were interviewed about the way of usage of plants as medicine for treating various diseases.



Fig. 2: (A) Local vaidya collecting plants for making medicine; (B) Interview with the local medicine man and documentation; (C) The traditional healer is collecting the tubers and other parts of plants from the grove; (D) The traditional healer is searching for tubers and medicinal plants in and around the sacred grove site.

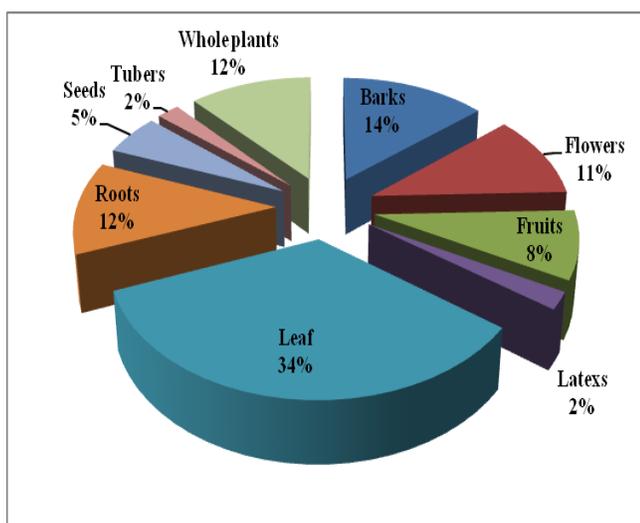


Fig. 3: Plant part-wise ethno-medicinal analysis.

The plant parts mostly reported in this regard were leaves (34%), bark (14%), whole plant and root (12%), flower (11%), fruits (8%), seed (5%), latex (2%) and tuber (2%) (Fig. 3). The availability of plant materials in the season time, whether used either in fresh form or as extract or paste or dried or powder or as an oil was also studied. The plants were used singly as only one plant or combined as more than one plant to treat the diseases and time to be taken for the treatment of disease either in a short period of time or over a longer period of time depending on the severity of the disease and the condition of the patient. Table 1 gives the details of the plants which were used to treat many diseases, particularly filariasis, diabetes, as an aphrodisiac, or appetizer, for blood pressure, skin disease, gastric problems, haemorrhoids, kidney stone, lice killer, sexual activities, ulcer and dysentery.

Table 1. Ethnomedicinal plants recorded from selected sacred groves in Cuddalore and Villupuram District, Tamil Nadu, India.

Sl. no	Botanical name	Habit	Family	Vernacular name	Common name	Plant part(s) uses	Administration and mode of preparation of medicines	Medicinal use (diseases)	Name of the grove
1	<i>Abrus precatorius</i> L.	C	Fabaceae	Kundumani	Coral bead vine	Leaf	Equal amount of leaf of this plant along with jaggery and gingelly seeds are mixed and made into a paste. Lemon juice is given to the girl to activate puberty on the condition that on medication the girl takes unripened bannana	Attain puberty	VM
2	<i>Acacia ferruginea</i> DC.	T	Mimosaceae	Chimai velvel	Rusty acacia	Bark	Bark consumed with curd to again activate for poison is made into a powder of bark to use to clean the teeth to avoid tooth ache	Again action for poison and teeth disease	VR
3	<i>Acacia caesia</i> (L.) Willd.	L	Mimosaceae	Kari-indu	Twisted acacia	Leaf	Powder of the leaf applied for lice killer	Lice killer	KI
4	<i>Acacia nilotica</i> (L.) Delile	T	Mimosaceae	Karivelam	Black babul	Bark	Powder of bark used as mouth wash to cure stomatitis and is given to strengthen the teeth	Stomatitis	MD
5	<i>Aegle marmelos</i> (L.) Corr. Serr.	T	Rutaceae	Vilvam	Bel	Leaf	Extract from leaf is mixed with gingelly oil and a few seeds of black pepper oil heated thoroughly. A spoon of this oil is taken before head bath. Its regular use builds up resistance to colds and coughs	Colds and Coughs	VM
6	<i>Aerva lanata</i> (L.) Juss. ex Schult.	H	Amaranthaceae	Sirukanpilai	Mountain knot grass	Bark	This plant root and bark along with palm sugar is mixed to make a paste and taken regularly to cure kidney stones.	Kidney stone	MD
7	<i>Albizia amara</i> (roxb.) Boivin	T	Mimosaceae	Usil	Krishna siris	Leaf	The extract of its leaf is used in the treatment of skin disease	Skin disease	DM
8	<i>Albizia lebeck</i> (L.) Benth.	T	Mimosaceae	Vagai	Siris	Flower	Paste of this flower is used externally on tumor. And seeds are soaked in water and used to treat eye diseases	Tumor and eye diseases	VPM
9	<i>Allophylus serratus</i> (Roxb.) kurz.	S	Sapindaceae	Siruvalli		Root	Roots in water are boiled and filtered One glass is taken to cure diarrhea	Diarrhea	EI
10	<i>Aloe vera</i> (L.) Burm.f.	H	Asphodelaceae	Katralai	Brun plant	Whole plant	Peels leaf bladders 10 g is taken and added with lemon juice and honey. This mix of juice is taken daily in the morning to cure ulcer and paste of aloe applied to hair to remove dandruff	Ulcer, Dandruff	KR

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11	<i>Andrographis paniculata</i> (Burm.f.) Nees	H	Acanthaceae	Nilavempu	Kariyat	Whole plant	Dry in shade light and make into a powder. It is taken daily for diabetes	Diabetes	VR
12	<i>Atalantia monophylla</i> (L.) DC.	T	Rutaceae	Kattu elumichai	Indian atalantia	Fruit	The juice of this fruit is mixed with salt. It is a medicinal preparation for skin diseases	Skin disease	EI
13	<i>Barleria prionitis</i> L.	H	Acanthaceae	Kundan	Porcupine flower	Leaf	Leaf extract applied externally for foot cracks cure	Foot crack	UI
14	<i>Basilicum polystachyon</i> (L.) Moench	H	Laminaceae	Canakkirai	Musk Basil	Leaf	Leaf grind is applied externally for treating sprain and a few drops of leaf infusion through the nose to cure headache	Sprain and Headache	KR
15	<i>Blepharis maderaspatensis</i> (L.) B. Heyne ex Roth	H	Acanthaceae	Kuraval chedi	Creeping blepharis	Root	Root boiled in water. Extract of this decoction is consumed to cure syphilis	Syphilis	VR
16	<i>Boerhaavia diffusa</i> L.	H	Nyctaginaceae	Saaranathi	Wine flower	Root	Paste of roots can be applied on the oedematous swelling to cure oedema	Oedema	PI
17	<i>Borassus flabellifer</i> L.	T	Arecaceae	Pannaimaram	Palmyra tree	Flower	The toddy of this tree acts as an aphrodisiac If taken regularly for 40 days. In large doses it affects the liver	Aphrodisiac	PI
18	<i>Bulbostylis barbata</i> (Rottb.) Kunth ex C.B. Clarke	H	Cyperaceae	mukkutikorai		Whole plant	Whole plant boiled in water this extract is for remedy of dysentery	Dysentery	MD
19	<i>Butea monosperma</i> (Lam.) Taub.	T	Fabaceae	Purasu	Flame of the forest	Seed	The crushed seeds with lemon juice applied with good results on ring worms	Ring Worms	MD
20	<i>Caesalpinia bonduc</i> (L.) Roxb.	C	Caesalpinaceae	Kalichchikkai	Fever nut	Leaf	The leaf ground with pepper to make paste. This paste to use for three days to cure inflamed testicle. No chicken to be taken during treatment.	Inflamed testicle	DM
21	<i>Calotropis gigantea</i> (L.) Dryand.	S	Asclepiadaceae	Erukku	Crown flower	Leaf	The leaf and castor oil made into a paste and applied externally to cure skin inflammation	Skin Inflammation	VR
22	<i>Calycopteris floribunda</i> Lam.	L	Combretaceae	Pullanji valli	Paper flower climber	Leaf	Paste of the leaf is applied to bruises	Cure bruises	KI
23	<i>Canthium coromandelicum</i> (Burm.f.) Alston	S	Rubiaceae	Sengarai	Coramendal canthium	Fruit	The leaf and fruit are used as food. Leaf and roots of this plant are boiled in water. This decoction cures dysentery	Dysentery	KR
24	<i>Capparis sepiaria</i> L.	L	Capparaceae	Karindu	Wild caper brush	Leaf	Leaf added in cooking and used as appetizer	Appetizer	VM

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25	<i>Capparis zeylanica</i> L.	L	Capparaceae	Athondai	Indian caper	Flower	Mixed power of the flower and Arugampul root is taken daily with ghee to cure haemorrhoids	Haemorrhoids	KI
26	<i>Cardiospermum helicacabum</i> L.	C	Sapindaceae	Mutakkathan	Baloon vine	Leaf	The leaf is ground and mixed with rice flour. It makes a good dosai. It is used to cure rheumatism	Rheumatism	UI
27	<i>Cascabela thevitia</i> (L.) Lipp.	T	Apocynaceae	Thanga arali	Yellow oleander	Seed	Extremely poisonous but should be properly used as a medicine. Seeds are collected and dried in sunlight and oil extracted from seed. It is applied externally to cure skin diseases	Skin disease	SR
28	<i>Cassia auriculata</i> L.	S	Caesalpiniaceae	Avaram	Tanner's cassia	Flower	5 to 10 flowers taken daily to decrease sugar and make the skin shine. 100 ml oil are boiled to add 5g of dry flower and 5g vetiver and 5g henna. It is used to grow hair to be applied for 60days	Decrease sugar, shine skin, Growth hair	SR
29	<i>Cassia fistula</i> L.	T	Caesalpiniaceae	Konrai	Golden shower tree	Root	Used to treat cold and running nose The smoke from the burning of the root can be inhaled to cure this. It encourages profuse nasal discharge and helps in providing relief.	Cold	DM
30	<i>Cassytha filiformis</i> L.	P	Lauraceae	Erumai korran	Love vine	Whole plant	The powder of whole plant is mixed with dry ginger and butter and is used in treating skin diseases and only extract of the plant is applied to inflammation of the eyes	Skin disease, eyes Inflammation	DM
31	<i>Catharanthus roseus</i> (L.) G.Don	H	Apocynaceae	Sudukattu malli	Vinca	Whole plant	Whole plant made into a powder. It is also used to prevent cancer. And it is made into a powder by adding water to make paste. The paste is applied to the nervous disorders and to cure sprains and inflammation of skin	Nerous disorder, sprain and Inflammation skin	VR
32	<i>Catunaregam spinosa</i> (Thunb.) Tirven.	S	Rubiaceae	Madkarai	Mountain pomegranate	Bark	Paste of bark externally applied to relieve pain of bruises and cure bone-ache	Relieve born-aches	KR
33	<i>Chloroxylon swietenia</i> DC.	T	Rutaceae	Mammarai	Ceylon satinwood	Leaf	Leaf paste is used as a first aid to treat insect bites and remove poison from the body by insect bites	Remove poison	PI

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34	<i>Cissus vitiginea</i> L.	L	Vitaceae	Cempirantai	South indain treebine	Leaf	Juice of leaf added to pepper. 5ml of the decoction should be taken for relief of gastric problem	Gastric problem	EI
35	<i>Cissus quadrangularis</i> L.	L	Vitaceae	Perandai	Divil's bachbone	Whole plant	Made into pickles to be taken daily as appetizer	Appetizer	SR
36	<i>Cleome viscosa</i> L.	H	Capparaceae	Naikaduku	Yellow spider flower	Leaf	The paste of the leaf is mixed with lemon to be applied externally to cure headache. Flower juice is mixed with breast milk and given to the child to cure indigestion problem	Headache and Indigestion problem	SR
37	<i>Coccinia grandis</i> (L.) Voigt	L	Cucurbitaceae	Kovakkai	Ivy gourd	Leaf	Leaf juice taken in the morning and evening regularly 25ml. This is to cure dysentery. This juice and equal quantity of oil with rice boiling extract is used to cure gonorrhoea	Dysentery and Gonorrhoea	EI
38	<i>Combretum albidum</i> G. Don.	L	Fabaceae	Odaikodi	Piluki	Fruit	The juice extract from fruit filter and mixed with pepper powder is consumed to cure dysentery. Decoction of bark is the best remedy for jaundice	Dysentery and Jaundice	MD
39	<i>Commelina benghalensis</i> L.	H	Commelinaceae	Kanangolai	Bengal day flower	Whole plant	The whole dried plant is made into a powder and mixed with hot water to cure menstrual disorder	Menstrual disorder	VPM
40	<i>Commiphora caudata</i> (Wight & Arn.) Engl.	T	Burseraceae	Mailama	Hill mango	Seed	Powder of the seed is infused with cow's milk to stop stomach pain	Stomach ache	KI
41	<i>Cordia monoica</i> Roxb.	T	Boraginaceae	Virimaram	Snot berry	Leaf	Leaf used for eye disorder and paste of leaf applied externally to cure inflammations	Eye disorder and inflammations	KI
42	<i>Crataeva manga</i> (Lour.) DC.	T	Capparaceae	Maralingam	Three leaved caper	Root	The ash of root of this plant 5gm and equal quantity of root of the birdsville indigo plant, fragrant swamp mallow, and mountain knot grass are added with water and made into a paste by boiling it. It is also used to cure urinary stone	Urinary stone	VPM
43	<i>Croton bonplandianus</i> Baill.	H	Euphorbiaceae	Reilpoundu	Ban tulsi	Leaf	This plant remedy is for controlling high blood pressure and paste of leaf to cure skin diseases	Blood pressure and Skin disease	EI
44	<i>Datura metel</i> L.	H	Solanaceae	Oomathai	Devil's trumpet	Flower	The leaf and flowers are dried in sunlight. The smoke can be inhaled to cure asthma	Asthma	VM

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45	<i>Delonix elata</i> (L.) Gamble	T	Caesalpinaceae	Perungonrai	White gulmohar	Leaf	The crushed leaf is boiled in water and is used externally to reduce the pain of joints	Joint pain	SR
46	<i>Dendrophthoe falcata</i> (L.f.) Ettingsh.	P	Loranthaceae	Pulluruvi	Honey suckle mistle	Whole plant	This is used as an antidote for poison of <i>Strychnos nuxvomica</i>	Antidote for nux vomica	UI
47	<i>Derris ovalifolia</i> (Wight & Arn.) Benth.	L	Fabaceae	Pungam	Kanara derris	Bark	Paste of the bark is applied for treatment of insect bites	Insect bites	MR
48	<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	T	Mimosaceae	Veduttalam	Sickle brush	Bark	Powder of the root along with milk is taken for 48 days to cure elephantiasis	Elephantiasis	DM
49	<i>Dioscorea oppositifolia</i> L.	L	Dioscoreaceae	Vettilaivalli	Chinese yam	Tuber	Boiled tubers are eaten especially for pregnant women to get strength. It is mostly given to women after childbirth	Body strength for women	PI
50	<i>Euphorbia hirta</i> L.	H	Euphorbiaceae	Amman pacharisi	Asthma weed	Latex	Latex directly applied on external skin of pimples. It cures pimples and cracked lips.	Pimples	VPM
51	<i>Evolvulus alsinoides</i> L.	H	Convolvulaceae	Vishnukarathai	Darf morning glory	Leaf	The leaf dried in sun light and made into powder. The powder is mixed with coconut water and taken daily in the morning to improve fertility	Improve fertility	SR
52	<i>Ficus amplissima</i> J. E.	T	Moraceae	Kal athi		Latex	For the fracture of bones, the latex and bark is tied around the broken bone which will be cured.	Bone Fracture	MR
53	<i>Ficus glomerata</i> Rox.	T	Moraceae	Atthi	Cluster fig	Fruit	The fruit ground with milk and added honey. taken in the morning on an empty stomach for 18 days increases the haemoglobin content in the blood	Increase Haemoglobin	UI
54	<i>Ficus benghalensis</i> L.	T	Moraceae	Aal	Banyan	Root	5g adventives root and one or two peppers added and ground and mixed with milk and taken for 7 days. It improves lactation of expectant mothers	Increase Lactation of expectant mother	MD
55	<i>Gloriosa superba</i> L.	C	Liliaceae Juss.	Senkanthal	Glory lily	Tuber	The tuber is made into a fine paste with milk and applied externally to cure skin diseases	Skin disease	KI
56	<i>Gmelina asiatica</i> L.	S	Verbenaceae	Kumil	Asian bush beech	Fruit	The fruit is crushed and applied to scalp to cure dandruff and cool the body	Dandruff and Cool body	UI
57	<i>Grewia orientalis</i> L.	L	Tiliaceae	Kodividalai		Root	Root extract as infusion to develop sterility in women	Sterility in women	EI
58	<i>Gyrocarpus americanus</i> Jacq.	T	Hernandiaceae	Kadavai	Helicopter tree	Bark	Paste of bark externally applied on forehead to cure colds	Cold	UI

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59	<i>Hemidesmus indicus</i> (L.) R. Br. ex Schult.	H	Asclepiadaceae	Nannari	Sarsaparilla	Root	The roots ground with water and mixed with pepper is useful in stomach ache cases	Stomach ache	KR
60	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	T	Ulmaceae	Aya	Indian elm	Bark	Powder of the bark mixed with water made into a paste and applied to cure skin diseases	Skin diseases	SR
61	<i>Hugonia mystax</i> L.	L	Linaceae	Mothirakanni	Climbing flax	Root	Root powder applied externally on swelling skin to cure inflammation	Inflammation	DM
62	<i>Hybanthus enneaspermus</i> (L.) F.v. Muell.	H	Violaceae Batsch	Orithal thamarai	Spade flower	Whole plant	Whole plant dried in the shade light after making into a fine powder. The powder is then mixed with cow milk and honey and consumed to improve sexual activities	Sexual activities	VM
63	<i>Ipomea staphylina</i> Roem. & Schult.	L	Convolvulaceae	Onakodi		Leaf	Leaf boiled in water. The leaf is applied on dropsy swelling area on legs and hand to reduce swelling	Dropsy swelling	DM
64	<i>Jasminum angustifolium</i> (L.) Willd.	L	Oleaceae	Kattu malligai	Wild jasmine	Flower	Paste of the flower externally applied on breast after child birth to increase mother's milk and reduce breast pain	Increase mother's milk and breast pain	SR
65	<i>Lannea coromandelica</i> (Houtt.) Merr.	T	Anacardiaceae	Uthiyamaram	Indain ash tree	Leaf	Boiled leaf are applied on bruises, swellings, and is used to cure filariasis	Filariasis	VPM
66	<i>Lepisanthes tetraphylla</i> (Vahl) Radlk.	T	Sapindaceae	Karadipongan	Kurpa	Leaf	Dried leaf is burned to ash and is mixed with castor oil to externally apply to cure filariasis	Filariasis	VPM
67	<i>Limonia acidissima</i> L.	T	Rutaceae	Vilampalam	Wood apple	Fruit	The ripe fruit dried in shade and ground into a powder to take daily one spoon with water to cure digestive disorders and to prevent cancer of the breast	Digestive disorders, Breast cancer	VPM
68	<i>Maytenus emarginata</i> (Ruiz & Pav.) Loes.	S	Celastraceae	Kattangi	Red spike thorn	Bark	The bark is made into a fine paste with coconut oil and applied on scalp to kill lice and remove dandruff	Kill lice and dandruff	VM
69	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	T	Rubiaceae	Neer Kadambu	Kaim	Bark	The bark is boiled in water to be taken internally to cure fever	Fever	EI
70	<i>Moringa oleifera</i> Lam.	T	Moringaceae	Murungai	Drumstrick	Flower	The flowers of the nochi (<i>Vitex</i>) and Drumstrick flower is crushed and added to milk. It is taken at night to improve fertility.	Improve fertility	KI

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71	<i>Nerium oleander</i> L.	T	Apocynaceae	Arali	Oleander	Flower	Paste made from the flower is crushed and boiled in castor oil. Paste is then externally applied on swelling to cure inflammation	Inflammation	DM
72	<i>Ocimum cannum</i> Sims L.	H	Lamiaceae	Nai thulasi	Wild basil	Leaf	Leaf boiled in water after filtering. The extract with jaggery is consumed to cure coughs	Coughs	KR
73	<i>Pamburus missionis</i> (Wall. ex Wight) Swingle	T	Rutaceae	Kattu alumichai		Leaf	Leaf paste is applied on fractured area or wound swelling to cure the same.	Fractures	UI
74	<i>Pavonia zeylanica</i> (L.) Cav.	H	Malvaceae	Savagan	Ceylon swamp mallow	Whole plant	Whole plant used as pain reliever of rheumatism	Rheumatism	VM
75	<i>Phyllanthus amarus</i> Schumach. & Thonn.	H	Euphorbiaceae	Keelaneli	Carry me seed	Root	Root ground and made into a paste. The paste is then boiled in coconut oil after filtering then apply on scalp for growing hair and curing baldness	Disappear baldness	VM
76	<i>Pisonia aculeata</i> L.	L	Nyctaginaceae	Kodi kuttippadatti, Marukalli, Selamaranjaan	Lettuce tree	Bark	Paste of bark externally applied to cure rheumatism	Rheumatism	KI
77	<i>Pleiospermium alatum</i> (Wight & Arn.) Swingle	T	Rutaceae	Malai narathai; Kaattu kichili		Leaf	Leaf paste used as wound healing property	Wound healing	VM
78	<i>Pongamia pinnata</i> (L.) Pier.	T	Fabaceae	Pungai	Pongam tree	Leaf	Leaf juice infusion cures rheumatism	Rheumatism	MR
79	<i>Reissantia indica</i> (Willd.) N. Hallé	L	Celastraceae	Odangod	Mopane paddle-pod	Root	Root powder applied on sore wound	Sore and wound	KI
80	<i>Rivea hypocrateriformis</i> Choisy	L	Convolvulaceae	Musuttai kodi, Budthi kirai	Midna pore creeper	Leaf	The leaf is used by local medicine man. The juice of leaf is given to women after childbirth. It is for control of hemorrhage	Hemorrhages disease	VM
81	<i>Salvadora persica</i> L.	T	Salvadoraceae	Uka	Salt brush	Leaf	Decoction of leaf used as mouth wash to cure mouth ulcer	Mouth ulcer	EI
82	<i>Sansevieria roxburghiana</i> Schult. & Schult. f.	H	Asparagaceae	Marul		Leaf	Castor oil applied on the plant leaf and burned lightly after being crushed to get extract. The extract cures earache	Earache	EI
83	<i>Scutia myrtina</i> (Burm. f.) Kurz	L	Rhamnaceae	Tuvadi	Cat thorn	Fruit	The edible fruit is used as astringent	Astringent	KI
84	<i>Sida acuta</i> Burm.f.	H	Malvaceae	Palambasi	Common wire weed	Flower	Dried flower ground and boiled in water. This decoction is used to wash teeth to get strong and get relief from tooth pain	Teeth pain	PI

Sl. no	Botanical name	Habit	Family	Vernacular name	Common name	Plant part(s) uses	Administration and mode of preparation of medicines	Medicinal use (diseases)	Name of the grove
85	<i>Sida cordifolia</i> L.	H	Malvaceae	Arivalmanai poondu	Heart leaf sida	Whole plant	Whole plant ground into an extract. Then extract filter is used as antiseptic to wash bruised area to cure bruises quickly	Antiseptic and bruises	PI
86	<i>Syzygium cumini</i> (L.) Skeels	T	Myrtaceae	Naval	Java plum	Seed	Seed made into a fine powder and taken with water daily to control diabetics	Diabetices	MR
87	<i>Tamarindus indica</i> L.	T	Caesalpinaceae	Puli	Tamarind	Seed	Seeds ground to make powder after few seeds fried and mixed with Cumin and sugar to make juice. It is taken for 3days daily twice for dysentery	Dysentery	VPM
88	<i>Thespesia populnea</i> (L.) Sol. ex Corrêa	T	Malvaceae	Puvarasu	Indian tulip tree	Bark	Bark extract with jaggery made into a juice and taken orally to cure leucoderma	Leucoderma	DM
89	<i>Tinospora cordifolia</i> (Willd.) Hook. f. & Thomson	L	Menispermaceae	Kunali	Gulbel	Leaf	The juice from leaf is added to honey and taken on empty stomach to cure gastric problem	Gastric problems	KI
90	<i>Tridax procumbens</i> L.	H	Asteraceae	Thatha poo	Tridax daisy	Leaf	The leaf is directly applied on blood from wound and some insect bites to cure poison	Stop bleeding and Remove poison	UI
91	<i>Ventilago maderaspatana</i> Gaertn.	L	Rhamnaceae	Surapattai kottai	Red creeper	Bark	Powder of bark infusion is taken to get energy	Energy drink	MR
92	<i>Vitex negundo</i> L.	T	Laminaceae	Nochi	Chaste tree	Flower	5g flower with 5g drumstick is crushed and mixed with milk and consumed for 7 days in night. It is to improve sexual activities and cure liver disorders	Improve fertility	KR
93	<i>Ziziphus mauritiana</i> Lam.	T	Rhamnaceae	Elanthai	Indain jujube	Fruit	Dry fruit are boiled in a litre of water and added with sugar and honey. It is given daily at night before retiring. It activates the brain	Functioning of brain	KR
94	<i>Ziziphus oenopia</i> (L.) Mill.	L	Rhamnaceae	Surai elanthai	Jackal jujube	Leaf	Leaf paste is applied to forehead for activating the brain and curing brain nervous disorder	Madness	VR

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Conclusion

The collected data was documented on the basis of the plant scientific name, vernacular name, family, habitat, plant part usage and ability to cure the disease. A total of 94 species belonging to 84 genera and 47 families were enumerated in the twelve sacred grove sites studied. Plants such as *Abrus precatorius* L., *Acacia caesia* (L.) Willd., *Albizia lebbek* (L.) Benth., *Andrographis paniculata* (Burm.f.) Nees, *Blepharis maderaspatensis* (L.) B. Heyne ex Roth, *Capparis zeylanica* L., *Hybanthus enneaspermus* (L.) F.v. Muell., *Lepisanthes tetraphylla* (Vahl) Radlk. and *Ziziphus mauritiana* Lam. These plants are used for attaining puberty, killing of lice, tumor and eye diseases, diabetes, syphilis, haemorrhoids, sexual activities, filariasis, functioning of the brain, etc.

Hence, it has been established that herbal based medicine is an effective cure for many diseases. Every house should maintain a small herbal garden where plants that meet the needs of primary health care are grown. Thus, the medicinally important plants will be conserved as well as the indigenous knowledge of traditional medicine will be utilized by the present as well as future generations.

Conflict of interest statement

There is no conflict of interest.

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