



ETHNOBOTANICAL STUDY OF PALAYAMCHETTIKULAM PLAINS IN TIRUNELVELI DISTRICT, TAMIL NADU, INDIA


A. Antony Selvi and T. Leon Stephan Raj*

Department of Botany, St. Xavier's College (Autonomous), Palayamkottai, Tirunelveli, Tamil Nadu, India.

ABSTRACT

The plants are used as a source of medicine from time immemorial. The local people take the different sources of medicinal product as food. In India, the medicinal plants are used in Traditional Medicinal Systems like Siddha, Unani and Ayurveda. In the present investigation, the local people of palayamchettikulam of Tirunelveli district, Tamil Nadu used traditional medicinal plants are documented. There are 72 medicinal plants were documented along with their local names and their uses for different diseases. A total of 72 plant species representing 68 genera and 32 families were documented from the study area. *Euphorbiaceae* with 6 species was the most species family followed by *Apiaceae* (5 species) and *Solanaceae* (5 species). At the genus level, *Solanum* dominated with three species followed by *Citrus* (2 species) and *Piper* (2 species). Most of the medicinal plants are taken in as roots, tubers, stem and leaves, are taken orally with or without combination of other plants, external applications like paste, fumigation. Most of plants used by them are Herbs (43%), Shrubs (24%), Trees (22%) and Climbers (11%). It is observed that the urban educated people are more aware of good effects of herbal medicine over allopathic medicine than the rural people.

Keywords :- Ethnobotany, Palayamchettikulam, *Solanaceae*.

Access this article online		
Home page: http://www.mcmed.us/journal/abs DOI: http://dx.doi.org/10.21276/abs.2019.6.2.4	Quick Response code 	
Received: 01.05.19	Revised: 12.05.19	Accepted: 21.05.19

INTRODUCTION

Medicinal plants are used by 80% of people from developing countries to fulfill their primary health needs, occupying a key position on plant research and medicine. In India, the use of different parts of several medicinal plants to cure specific ailments has been practiced since ancient times. Ethno botany is the study of the interaction between plants and people, with a particular emphasis on traditional cultures. From "ethno" - study of people and "botany" - study of plants. Ethnobotany is considered a branch of ethnobiology. Ethnobotany studies the complex relationships between (uses of) plants and cultures. The focus of ethnobotany is on how plants have been or are used, managed and perceived in human societies and includes plants used for food, medicine, divination, cosmetics, textiles, for

building, tools, currency, clothing, rituals and social life. Ethnobotany is a multidisciplinary science defined these as the interaction between plants and people. The relationship between plants and human cultures is not limited to the use of plants for food, clothing and shelter but also includes their use for religious ceremonies, ornamentation and health care [1].

According to the World Health Organization (WHO) about 65-80% of the world's population in developing countries depends essentially on plants for their primary healthcare due to poverty and lack of access to modern medicine [2]. Ethnobotanical studies have become increasingly valuable in the development of health care and conservation programs in different parts of the world [3]. In the developed countries, 25% of the

medical drugs are based on plants and their derivatives [4] and the use of medicinal plants is well known among the indigenous people in rural areas. India is one of the most medico-culturally diverse countries in the world where the medicinal plant sector is part of a time honoured tradition that is respected even today. The country possesses an ancient system of healthcare based chiefly medicinal plants of diverse nature, ranging from higher plants to microorganisms from which more than 80% of therapeutic products are derived have been used for 6000–7000 years [5].

Traditional knowledge of medicinal plants and their use by indigenous healers and drug development in the present are not only useful for conservation of cultural tradition and biodiversity but also for community health care and drug development in the local people. The indigenous knowledge on medicinal plants appears when humans started and learned how to use the traditional knowledge on medicinal plants [6]. While the focus of ethnomedical studies is often the indigenous perception and use of traditional medicines, another stimulus for this type of research is drug discovery and development. Ethno-medicinal studies are a suitable source of information regarding useful medicinal plants that can be targeted for domestication and management [7]. These studies assume great importance in enhancing our traditional skills and technology about the plant grown and used for native for their sustenance. The use of ethnobotanical information in medicinal plant research has gained considerable attention in segment of the scientific community [8]. Also, traditional medicine and ethno-botanical information play an important role in scientific research, particularly when the literature and field work data have been properly evaluated [9].

MATERIALS AND METHODS

Study Area

Palayamchettikulam is located in Tirunelveli district of Tamil Nadu. It is a village in Palayamkottai Taluk in Tirunelveli district of Tamil Nadu state. It is located 13 km towards east from district head quarters Tirunelveli 6km from Palayamkottai, 644 km from state capital Chennai. Current temperature is 24°C. Humidity 78%. Altitude 48 meters. Latitude- 8.728486(north). Longitude -77.687738(east). The climate in peninsular India is in generally uniformly mega thermal. This area has semi-arid tropical climate. In this study area, the hottest months of the year are April and May and the coolest months of the year are November to January. The water received from the monsoon is collected in the bonds and pools which is helpful for the irrigation of cultivated lands.

Collection of Data

During the course of present study, field trips were carried out to the area during November 2014 from

Palayamchettikulam, standard methodology was used to elicit the knowledge of medicinal plants. The plants specimens collected were processed at the laboratory of Botany, St. Xavier's College, Palayamkottai, and identified with the help of available literature. The plants were identified from fresh specimens with the help of different floras [10]. Tree species were collected by hand and was identified by experts of the field.

Ethno medicinal data were collected through conversation with traditional healers, and elder people in the field trips. During the interviews local names, useful plant parts, method of preparation and dosage were recorded. After eliciting detailed information regarding the medicinal plants (Table 1), the collected materials were carefully brought to the laboratory for identification.

RESULT AND DISCUSSION

The present study revealed that the local people of Palayamchettikulam of Tirunelveli district, Tamil Nadu, India were using 72 species of medicinally important plants belonging to 32 families (Table 1). The most medicinally important plants species were observed in most of families. Medicinal plants play an important role in providing knowledge to the researchers in the field of ethno botany and ethno pharmacology. The observations of present study showed that traditional medicine plays a significant role among the local people of palayamchettikulam. Besides this, in other districts of tamilnadu like kancheepuram, Vilupuram and tiruvanamalai, practitioners are practicing the traditional system of medicine namely siddha and ayurvedha. Different parts of the plants such as stem, leaf, root, flower and fruits having capability to cure different diseases in the form of paste, powder, juices and decoctions. The ethno medicinally important plants collected from the Palayamchettikulam used to treat various diseases like cold, fever, cough, diarrhea, dysentery, skin diseases, laxative, diabetes and jaundice. This is constant with the outer general observation which has been reported earlier in relation to medicinal plant studies by the Indian traditional system of medicine like siddha and ayurvedha [11-14].

The total of 72 medicinal plant species representing 67 genera and 32 families were recorded. *Euphorbiaceae* comprises of 6 species followed by *Apiaceae* and *Solanaceae* (5 species), *Acanthaceae* (4 species), *Rutaceae* (4 species) and *Fabaceae* (4 species). Other families constitute one or more species in the study area (Figure 1). At the genus level, *Solanum* is dominated with three species followed by *Citrus* (2 species) and *Piper* (2 species). Of these 72 species, 66 dicots and 6 monocot.

In the habitat, most of the medicinal plants 43% (31 species) were herbs, 24% (17 species) were shrubs,

22% (16 species) were trees and 11% (8 species) were climbers (Figure 3).

Table 1. Ethnomedicinal plants, family, local name, parts used and uses of ethno medicinal plants in Palayamchettikulam plains of Tirunelveli district, Tamil Nadu, India.

S.No	Botanical Name	Family	Local Name	Useful part	Formation	Uses
1.	<i>Abelmoschuse sculentus</i> (L.) Moench.	Malvaceae	Vendakaai	Fruit	Soak ladies finger in a clay pot for five hrs and eat it.	Cure urine irritation.
2.	<i>Acalypha indica</i> L.	Euphorbiaceae	Kuppaimenii	Whole Plant Leaf Leaf	1. Paste of Kuppaimenii is used to apply the wound. 2. Kuppaimenii and salt. 3. Paste of kuppaimeni add salt, apply it in itching.	1. Aenimic, jaundice, Dropsy. 2. Cure cough. 3. Reduce itching.
3.	<i>Adadhodavasi ca</i> L.	Acanthaceae	Adadhoda and theean (honey)	Leaf Fruit Leaf	1. Make the Adadhoda leaf into a paste by grinding it finely and eat with honey. 2. Paste of adadhoda fruit with water, and drink it. 3. Paste of adadhoda leaf and drink it.	1. Cure cough, cold. 2. Cure skin diseases. 3. Cure stomach ache.
4.	<i>Aeglemarmelos</i> (L.) Correa.Ex.	Rutaceae	Veilvam and theean (honey)	Flower	Powder flower ofveilvam and add honey to it and drink it.	Cure allergy.
5.	<i>Allium cepa</i> L.	Liliaceae	Veangayam Veangayam and palm suger	Bulb Bulb	1. Fry Veangayam and paste it. 2. Eat small Veangayam with palm sugar.	1. To cure the swelled wound. 2. Antidote for Scorpion Poison.
6.	<i>Allium sativum</i> L.	Liliaceae	Poнду	Bulb	Fried Poнду with rice soaked water.	Cure stomach ache.
7.	<i>Allium sativum</i> L. <i>Piper beetle</i> Roxb.	Liliaceae Piperaceae	Poнду Vethallai	Bulb Leaves	Make a paste use it Poнду and vethallai use it as a body wash.	Skin allergy.
8.	<i>Allium sativum</i> L. <i>Zingiber officinalis</i> Roxb.	Liliaceae Zingiberaceae	Poнду Injii	Bulb Rhizome	Paste Poнду, Injii and add honey to it and eat twice a day before food.	Throat infection.
9.	<i>Aloe vera</i> L.	Liliaceae	Katrralli and palm suger		1. Eat the Katrralli with palm sugar. 2. Take the fleshy part and add sugar to	1. Laxative, Wound healing, Skin burns & care, Ulcer. 2. Cure piles.

				Stem	it and eat weekly once a day. 3. Take the fleshy part and apply on the hairs.	3. Reduce dandruff.
10.	<i>Aloe vera</i> L. <i>Phyllanthus emblica</i> L.	Liliaceae Euphorbiaceae	Kattrallai Nelli	Stem Fruit	To gel Kattrallai add Nelli juice and coconut oil and boil it and apply it to hair.	Black colored hair.
11.	<i>Alternanthera sessilis</i> (L.) R.Br. Ex Dc.	Amaranthaceae	Ponnakanni	Leaves	Eat twice a week.	Reduce irritation of eye and make it cool and fresh.
12.	<i>Amaranthus viridis</i> L.	Amaranthaceae	Reddish herbaceous stem (kerrai)	Leaf	Ground the leaves and applied over the swell on region.	Cure wound.
13.	<i>Andrographis ineata</i> Wallich Ex nees.	Acanthaceae	Seriyangai	Leaf	1. Eat twice week. 2. Paste of Seriyangai leaf.	1. Control diabetes. 2. Snake bites and Liver disease. It is good for diabetes.
14.	<i>Andrographis paniculata</i> (Burm. F.) Wallich. Ex Nees. <i>Anaphallium wightii</i> Scott.	Acanthaceae Araceae	Nilavembu or periyangai. keerizhangu	Leaf Leaf	Paste of Nilavembu leaf and keerizhangu.	1. Insect's bites and Liver stone disease. 2. It is good for diabetes and also the control of body temperature.
15.	<i>Annona squamosa</i> L.	Annonaceae	Seetha	Fruit Leaves	1. Continuously eat the fruits. 2. Paste of seetha leaves and apply it in wounded parts.	1. Strengthen the Heart. 2. Cure wound.
16.	<i>Cuminum cyminum</i> L. <i>Piper longum</i> L. <i>Centella asiatica</i> (L.) Urban.	Apiaceae Piperaceae Apiaceae	Jera, pepper, vallarikerrai	Seed Leaf	Paste of jera, pepper and vallarikerrai boil it and drink.	Increase memory powder.
17.	<i>Cuminum cyminum</i> L. <i>Citrus limon</i> L. Burm. F.	Apiaceae Rutaceae	Jera Elumichai	Seed Fruit	Add jera powder to lemon juice and drink every morning.	Reduce bitterness of growth.
18.	<i>Cuminum cyminum</i> L. <i>Piper longum</i> L.	Apiaceae Piperaceae	Jera Mellakku	Seed Seed	Eat a powder of mellakku and jira with milk.	Cure malaria.
19.	<i>Azadirachta indica</i> A. Juss. <i>Ocimum basilicum</i> L.	Meliaceae Lamiaceae	Vembu Tulsi	Leaf Leaf	Leaf boils it using water.	Control body temperature.
20.	<i>Azadirachta indica</i> A. Juss. <i>Ocimum basilicum</i> L. Var. pilo	Meliaceae Lamiaceae Rutaceae	Vambu Tulsi Elumichai	Leaf Leaf Fruit	Paste of neem and tulsi leaves add a few drops of lemon juice.	Reduce dandruff.

	sum <i>Citrus limon</i> (L.) Burm.F.					
21.	<i>Azadirachtain dica</i> A.Juss. <i>Momordicach arantia</i> L.	Meliaceae Cucurbitac eae	Vembu Pakarkaii	Leaf	Paste vembu leaf, bitter leaf and tulsi boil it with water.	Kill worms in stomach.
22.	<i>Azadiractaind ica</i> A. Juss.	Meliaceae	Vembu	Flower	1. Eat flower of neem plant. 2. Powder, the neem tree flower and mix it with warm water and drink.	1. Natural insecticide. 2. Gastric disorders.
23.	<i>Brassica nigra</i> L.	Brassicaceae	Kaddugu	Seed	Grind mustard seeds and mix it with water and drink.	Control the vomiting.
24.	<i>Brassica nigra</i> L. <i>Zingiberoffici nalis</i> Roxb. <i>Apiumgraveol ens</i> L.	Brassicaceae Zingiberac eae Apiaceae	Kaddugu Injii Jera	Seed Rhizome Seed	Mustard seeds, pepper, ginger, jera is roasted and grind to the powder and eat.	Cure stomach ulcer.
25.	<i>Carumcopticu m</i> L.	Apiaceae	Omam	Seed Seed Leaf	1. Dry omam with add 1½ liter of diluted boiled rice soaked water and drink. 2. Powder Omam keep it swollen gums of teeth and goggle. 3. Make a decaution of omam leaf petiole.	1. Cure stomach ache. 2. Reduce pain swollen gums. 3. Cure cough, cold fever.
26.	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Avaram	Flower	Eat five avaram flower daily.	Good for Blood circulation.
27.	<i>Catharanthusr oseus</i> (L.) G.Don.	Apocynaceae	Nithyakalyan i	Stem	Dry bark powder.	Used for cancer therapy.
28.	<i>Centellaasiati ca</i> (L.) Urban	Apiaceae	Vallarikerrai	Leaf	Boil kerrai and add coconut milk.	Cure Stomach ulcers.
29.	<i>Cissusquadra ngularis</i> L.	Vitaceae	Pirandai	Stem	1. Paste pirandai with salt apply it in affected parts. 2. Make juice from add one drop of milk apply it eye.	1. Cure swelled stomach leg. 2. Used as a medicine of eye infection.
30.	<i>Citrus aurantium</i> L.	Rutaceae	Orange	Fruit	Eat orange daily.	Strength and heart.
31.	<i>Citrus limon</i> (L.) Burm.F.	Rutaceae	Lemon	Fruit	1. Mix lemon juice and honey and drink it. 2. Make a tonic using lemon and drink it daily. 3. Lemon and salt.	1. Cure dry cough. 2. Make the swollen liver to normal. 3. Severe cold.

32.	<i>Coccinia indica</i> (L.) Voigt.	Cucurbitaceae	Kovaikaai	Fruit	Eat one kovaikaai fruit daily.	Control blood sugar level.
33.	<i>Cocos nucifera</i> L. <i>Cuminum cyminum</i> L.	Arecaceae Apiaceae	Theangaai Jera	Fruit Seed	Soaked the jera seeds with coconut water for one day. Jera was added. During day time to drink.	Cure cough, stomach ache.
34.	<i>Cocos nucifera</i> L.	Arecaceae	Theangaai Thean (honey) Coconut	Fruit Fruit Oil	1. Coconut ground with applied in head before taking bath. 2. Prepare white milk from coconut endosperm. To coconut milk add one spoon of honey and massage the body. 3. Apply coconut oil in face before bath.	1. Reduce hair fall. 2. Fresh and clear skin. 3. Shiny skin.
35.	<i>Coriandrum sativum</i> L. <i>Piper longum</i> L.	Apiaceae Piperaceae	Kothamalli Melakku Injii	Seed	Green coriander, peppers add in the milk and boil it.	Reduce acidity.
36.	<i>Coriandrum sativum</i> L. <i>Capsicum annum</i> L.	Apiaceae, Solanaceae	Kothamalli Melakaii	Seed Fruit	Paste of melakaii, kothamalli and prepare chatny.	Cure ulcer.
37.	<i>Coriandrum sativum</i> L. <i>Piper longum</i> L. <i>Cocos nucifera</i> L.	Apiaceae Piperaceae Arecaceae	Kothamalli Mellaku Theangaai	Seed Seed Fruit	Boil it. Pepper, coriander, coconut filter the extract and drink it.	Cure headache caused due to water accumulation in head.
38.	<i>Curcuma domestica</i> (Medik) Valh. <i>Aloe vera</i> L.	Zingiberaceae Liliaceae	Manjal Katrallai	Rhizome Stem	Paste of Vembu leaves, manjal and katralli.	Cure skin diseases.
39.	<i>Curcuma domestica</i> (Medik) Valh.	Zingiberaceae	Manjal	Rhizome	1. Paste turmeric seed and apply it in fractured areas. 2. Turmeric applies powder and curd. 3. Before going to bed, add turmeric and honey to hot milk and drink.	1. Cure fracture. 2. Cure face pimple. 3. Gives deep sleep.
40.	<i>Curcuma domestica</i> (Medik) Valh. <i>Ricinus communis</i> L.	Zingiberaceae Euphorbiaceae	Manjal Amanakku	Rhizome Seed	Mix turmeric and castor oil.	Cure wound.
41.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Arugampull	Leaf	Prepare juice from arugampull.	Purify blood, increase immunity.
42.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Arugampull	Leaves	Grind turmeric and Arugampull apply it	Good remedy for itching.

	<i>Curcuma domestica</i> (Medik) Valh.	Zingiberaceae	Manjal	Rhizome	in itch mark.	
43.	<i>Daemiaextensa</i> R. Br. <i>Zingiber officinalis</i> Roxb. <i>Mukiamadera spatana</i> (L.) M.Roemer.	Ascleipadaceae Zingiberaceae Cucurbitaceae	Veliparuthi, Injii, Melaku, poondu, mosumosikai	Whole plant	Make juice from garlic ginger, piper, neemleaf, dhudhuvalai, tulsi leaf.	Cure fuss.
44.	<i>Deamiaextensa</i> L.	Ascleipadaceae	Velliparuthi	Leaf	Drink the extracted milk of <i>daemiaextensa</i> .	Cure soriasis.
45.	<i>Emblica Officinalis</i> L.	Euphorbiaceae	Nellei	Fruit	Seed is used for powder to boil it for 10 min and drink.	Increase memory power.
46.	<i>Ferula foetida</i> (Bunge) Regal.	Apiaceae	Kayam	Latex	1. Soak asafetida in hot water. 2. Apply asafetida paste on wounded area.	1. Controlled body temperature. 2. Cure wound.
47.	<i>Gossypium herbaceum</i> L.	Malvaceae	Parruthi	Seed	Take the milk of paruthi seed and boil it and drink.	To give strength to body.
48.	<i>Hibiscus rosasinensis</i> L.	Malvaceae	Chembaruthi	Leaf	Dry hibiscus leaves and powdered it and eat twice a day.	For normal human discharging.
49.	<i>Hyacinth bean</i> L.	Apocynaceae	Avuri	Leaf	Mix leaf, pepper, jira and boil it in water.	To cure Fever.
50.	<i>Leucasaspera</i> (Willd.) Spreng.	Lamiaceae	Thumbai	Leaf	Leaf juice is given with honey.	Bronchitis in children.
51.	<i>Leucasaspera</i> (Willd.) Spreng. <i>Solanum trilobatum</i> L.	Lamiaceae Solanaceae	Thumbai Thudhuvalai	Leaf	Make powder of thumbai, tulsi, thudhuvalai dissolve it water.	Cure cough.
52.	<i>Lycopersicon esculentum</i> Mill.	Solanaceae	Thakalli	Fruit	Cut tomato into two equal half, and apply it on face.	Reduce oil content on face.
53.	<i>Mentha arvensis</i> L.	Lamiaceae	Puthena	Leaves	Boil menthol leaves with water and make a decoction and drink it daily.	Cure fever caused due to cold.
54.	<i>Moringa oleifera</i> Lam.	Moringaceae	Murungai	Leaves Leaves Bark Leaves	1. Cook drumstick leaves and eat. 2. To juice of drumstick leaves and honey and limestone and apply it in throat. 3. Boil the bark of Drumstick and extract the juice and drink.	1. Cure eye disease. 2. Cure cough. 3. Cure cold fever. 4. Cover like a

					4. Make extract from drumstick leaves and add salt to it.	bandage over the paining area.
55.	<i>Murrayakoengi</i> (L.) Spr. <i>EmblicaOfficinalis</i> L.	Rutaceae Euphorbiaceae	Nellei, neem, tulsi.	Leaf	Paste Curry, gooseberry, henna, neem, tulsi boil it with coconut oil.	Used for hair oil.
56.	<i>Zingiberofficinalis</i> Roxb. <i>Murrayakoengi</i> (L.) Spr. <i>Cumiumcyminum</i> L.	Zingiberaceae Rutaceae Apiaceae	Injii Kariveppilai Jera	Rhizome Leaf Seed	Add curry leaf, ginger, jera in glass of water and boil it. Filter the solution and drink it.	Cure indigestion.
57.	<i>Musa paradisiaca</i> L.	Musaceae	Vazhai	Stem Stem Fruit	1. Prepare juice from banana stem and drink. 2. Banana stems juice. 3. Apply ripened banana paste to face and let it dry for 20 minutes and wash soft skin.	1. Dissolve kidney sone. 2. Antidote for snake bite. 3. Soft skin.
58.	<i>Musa paradisiaca</i> L. <i>Cuminumcyminum</i> L.	Musaceae Apiaceae	Vallai Jera	Flower Seed	Fresh juice of banana flower and add ground jera to the juice for drink it daily.	Cure piles.
59.	<i>Ocimumbasilicum</i> L. Var. <i>Zingiberofficinalis</i> Roxb.	Lamiaceae Zingiberaceae	Tulsi Injii	Leaf Rhizome	Tulsi, dried ginger, pepper boil it and drink.	Cure throat pain and cough.
60.	<i>Ocimumbasilicum</i> L. Var.	Lamiaceae	Tulsi	Leaves	Make juice from tulsi leaves and mix it with boil water and drink it for 48 days.	Cure heat disease.
61.	<i>Ocimumbasilicum</i> L. Var. <i>Zingiberofficinalis</i> Roxb.	Lamiaceae Zingiberaceae	Tulsi Injii	Leaves Rhizome	Make decaution from tulsi, ginger and drink it.	Cure cold.
62.	<i>Ocimumbasilicum</i> L. Var. <i>Zingiberofficinalis</i> Roxb. <i>Cinnamomum aeylanacum</i> Hook.	Lamiaceae Liliaceae Lauraceae	Tulsi Injii Lavagam	Leaves Rhizome Seed	Make a paste using tulsi leaves dried ginger and lavagam apply it in forehead.	Cure head ache.
63.	<i>Phoenix humilis</i> Royle. <i>Curcuma domestica</i> (Medik) Valh.	Arecaceae Zingiberaceae	Perechi Manjal	Fruit Rhizome	Perechi and manjal add milk boil it.	Cure dry cough.

64.	<i>Phyllanthus amarus</i> Schum. & Thenn.	Euphorbiaceae	Keezhanelli	Whole plant	Eat the plant paste.	Cure Jaundice.
65.	<i>Phyllanthus amarus</i> Schum. & Thenn.	Euphorbiaceae	Kupaimeni	Leaf	Paste the kupaimeni leaf	Cure wound on skins and palms of legs.
66.	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Nellei and honey Nellei Nellei and honey Nellei	Fruit Fruit Seed Fruit	1. Boil goose berry and honey filtrate the extract to drink. 2. Eat goose berry legiyam twice a day. 3. Paste of gooseberry seed and honey. 4. Eat gooseberry daily.	1. Cure allergy. 2. Cure bone fever. 3. Cure allergy. 4. Cure asthma.
67.	<i>Phyllanthus niruri</i> L.	Euphorbiaceae	Keezhanelli	Leaves	Grind Keezhanelli leaves and add curd to it and eat.	Cure jaundice.
68.	<i>Piper longum</i> Roxb., <i>Apiumgraveolens</i> L.	Piperaceae Apiaceae	VallMelaku Jera	Seed Seed	Add Mellaku and jera powder in the boil water to drink.	Cure virus fever.
69.	<i>Piper nigrum</i> L.	Piperaceae	Mellaku, sugar Mellaku and black jera	Seed Seed	1. Add pepper powder in the milk to drink. 2. Boil it and drink.	1. Cure cough. 2. Cure fuss.
70.	<i>Piper betel</i> Roxb.	Piperaceae	Betal	Leaf	Eat the betal leaf.	Cure insect bite.
71.	<i>Pongamia glabra</i> L.	Fabaceae	Pungai	Flower	Dry Pungai flower and powder it and eat twice a day.	Cure thyphoid.
72.	<i>Punicagranatum</i> L. <i>Apiumgraveolens</i> L.	Lythraceae Apiaceae	Maathulai Jera	Fruit Seed	Skin of Maathulai and jera paste to eat.	Cure Stomach ache.
73.	<i>Punicagranatum</i> L.	Lythraceae	Mathulai Mathulai and honey	Fruit Fruit	1. Take Mathulai Juice and add drink it daily. 2. Drink Mathulai Juice with honey.	1. Purify blood, and for normal human discharge. 2. Cure nervous disorders.
74.	<i>Pyrus pyrifolia</i> (Burm.) Nak.	Rosaceae	Pearikaai	Fruit	Eat pear fruit twice a week.	Increase digestion.
75.	<i>Raphanus sativus</i> (L.) Domin.	Brassicaceae	Mullaghii	Rhizome	Make juice from mullaghii and drink it.	Cure headache, cough.
76.	<i>Rhinacanthus nasutus</i> (L.) Kurz.	Acanthaceae	Nagamalli	Leaf	Leaves boiled with gingelly oil.	Treatment toothache.
77.	<i>Ricinus communis</i> L.	Euphorbiaceae	Ayamanaku	Seed	Paste Ayamanaku seeds and apply to it face and hairs.	Reduce dandruff, face pimple.
78.	<i>Rosa centifolia</i> L.	Rosaceae	Rose and honey	Flower	Paste rose petals with honey and	Keep body fresh and cool increase blood

					dates.	production.
79.	<i>Rosa centifolia</i> L. <i>Citrus limon</i> (L.) Burm.F.	Rosaceae Rutaceae	Rose lemon	Leaves Rose petals.	1. To dry rose petals, add rose water, sandal and add a few drops of lime juice and apply it in face. 2. Soak Rose petals in water and filter it and add sugar to it and drink.	1. River shiny Appearance to face. 2. Reduce heat caused due to piles.
80.	<i>Saccharum officinarum</i> Chase	Poaceae	Karumpu	Stem	Prepare ash of sugarcane straw and add butter to it, apply the mixture to lips.	Cure cracks on lips.
81.	<i>Sesbania sesban</i> (L.) Merr.	Fabaceae	Agathi	Leaves	1. Eat agathi twice a week. 2. Drink agathikeerai leaf extract bark decaution.	1. Blood pressure. 2. Cure chicken pox.
82.	<i>Solanum nigrum</i> L.	Solanaceae	Manathakalli	Fruit	Eat tomato daily.	Cure intestine, wound.
83.	<i>Solanum trilobatum</i> L. <i>Ocimum basilicum</i> L. Var. pilosum. <i>Azadirachta indica</i> (A.Juss.)	Solanaceae Lamiaceae Meliaceae	Dhudhuvalai Tulsi Vembu	Leaf Leaf Leaf	Boil the leaf of dhudhuvalai, tulsi and vembu with pepper. Filtrate the extract and drink.	Cure cough.
84.	<i>Solanum trilobatum</i> L. <i>Carum copticum</i> L.	Solanaceae Apiaceae	Dhudhuvali Omam	Leaf Seed	Omam, dhudhuvali leaf powdered it and mixes it with water and drink.	Cure cough and fuss.
85.	<i>Solanum trilobatum</i> L.	Solanaceae	Thuthuvalai	Fruit	Make pickle from solanum trilobatum and eat.	Increase powder sight of eyes.
86.	<i>Solanum xanthocarpum</i> L.	Solanaceae	Kandankathiri	Leaf Whole plant	1. To kandankathiri leaf extract, add honey boil and drink. 2. To Kadakathiri leaf extract, add honey boil and drink.	1. Cure furs, cough and natural insecticide. 2. Cure fuss, cough and natural insecticide.
87.	<i>Sorghum vulgare</i> (L.) Pers.	Poaceae	Sollam, sugar, and egg white yolk	Seed	Mix white yolk of egg, sugar, soya powder and apply it in face.	Remove unwanted hair in face.
88.	<i>Syzygium aromaticum</i> L.	Myrtaceae	Kerambu	Flower	To clove powder add honey and eat.	Strengthen body parts.
89.	<i>Syzygium aromaticum</i> L.	Myrtaceae Euphorbia	Kerambu Nelli	Flower Fruit	Powder seed of goose berry and	Increase strength of teeth.

	<i>Phyllanthuse mblica</i> L.	ceae			clove use as tooth powder.	
90.	<i>Tridaxprocumbens</i> L.	Asteraceae	Thatha poo	Leaf	Apply tridax leaf on blood clotting area.	Reduce the swelling.
91.	<i>Tridaxprocumbens</i> L. <i>Azadirachtain dica</i> (A.Juss.)	Asteraceae Meliaceae	Thatha poo Vembu	Leaf Leaf	Apply the paste of thatha poo leaf or vembu leaf on throat.	Cure throat pain.
92.	<i>Trigonellafoenum – graecum</i> L. <i>Cuminumcyminum</i> L. <i>Ocimumbasilicum</i> L. Var. pilosum.	Fabaceae Apiaceae Lamiaceae	Vendhayam Jera Tulsi	Seed Seed Leaf	Powder Vendhayam, jera and tulsi is boiling in water. Drink the extract.	Cure stomach ache.
93.	<i>Vignamungo</i> L.	Fabaceae	Ulunthu	Seed	Apply the paste of Ulunthu and white yolk of egg.	Cure fracture.
94.	<i>Vitexnegundo</i> L.	Verbenaceae	Nochii	Leaves	1. Eat nochii leaf, pepper, caranga, garlic daily. 2. Eat nochii leaf, pipes, lavanga, and garlic. 3. Leaf of nochii plant is grind and mix it with water and bath. 4. Boil nochii and coconut oil to it apply it on affected areas.	1. Cure asthma. 2. Cure asthma. 3. Body temperature is controlled. 4. Reduce neck pain, spinal cord pain, head ache.
95.	<i>Zingiberofficinialis</i> Roxb.	Zingiberaceae	Injii	Rhizome	1. Make juice from ginger add honey and coconut milk into it. 2. Take a paste of ginger adds a pinch of salt and boils it.	1. Cure stomach ulcer. 2. Cure stomach acidity.
96.	<i>Zingiberofficinialis</i> Roxb. <i>Mukiamadera spatana</i> (L.) M.Roemer.	Zingiberaceae Cucurbitaceae	Injii Mosumosikai	Rhizome Leaf	Ginger juice and mosumosikai.	Cure headache.
97.	<i>Zingiberofficinialis</i> Roxb. <i>Mukiamadera spatana</i> (L.) M.Roemer. <i>Deamiaextensa</i> R.Br. <i>Allium</i>	Zingiberaceae Cucurbitaceae Asclepidaceae	Injii Mosumosiki Velliparuthi Poondur	Rhizome Leaf Leaf Bulb	Make juice from ginger, garlic, velliparuthi leaf and mosumosiki.	Reduce stomach acidity.

	<i>sativum</i> L.	Liliaceae				
98.	<i>Zingiber officinalis</i> Roxb. <i>Citrus limon</i> (L.) Burm.f.	Liliaceae Rutaceae	Injii Lemon	Rhizome Fruit	1. Paste ginger, lemon juice with honey. 2. To juice of ginger add honey and drink.	1. Induce hunger and reduce acidity. 2. Purify blood.
99.	<i>Zingiber officinalis</i> Roxb. <i>Curcuma domestica</i> (Medik) Valh	Zingiberaceae Zingiberaceae	Injii, Mellaku, pearuchi, manjal.	Rhizome Fruit	Paste Ginger, pepper, dates, dried ginger, turmeric add honey to it mix it with water and drink.	Cure gastric problems.
100.	<i>Zizphus jujuba</i> Lam	Rhamnaceae	Elanthai	Fruit	Eat elanthai fruit daily.	Reduce chest pain.

Fig 1. Number of species in each families

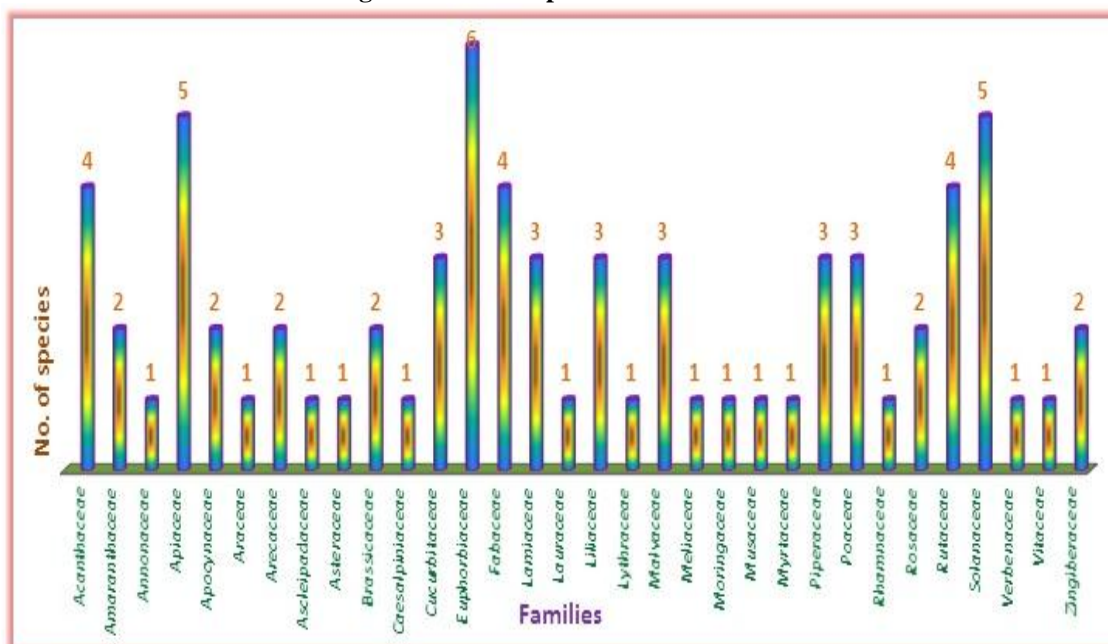


Fig 2. Distribution of families, genus and species enumerated in the study area

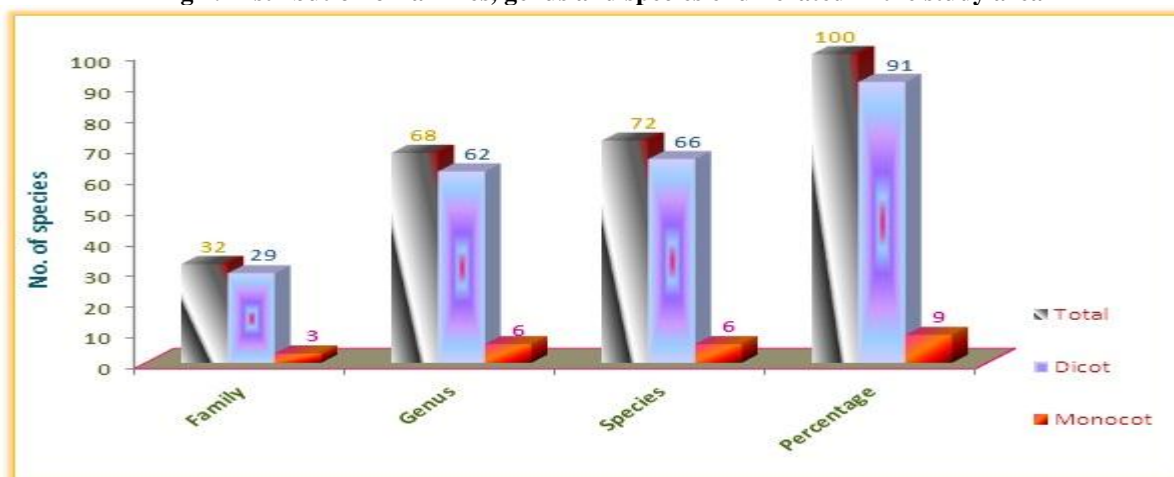


Fig 3. Medicinal plants of Palayamchettikulam habit wise distribution

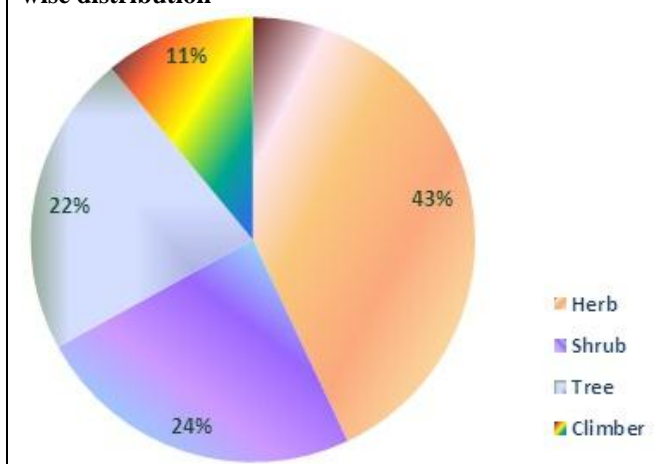
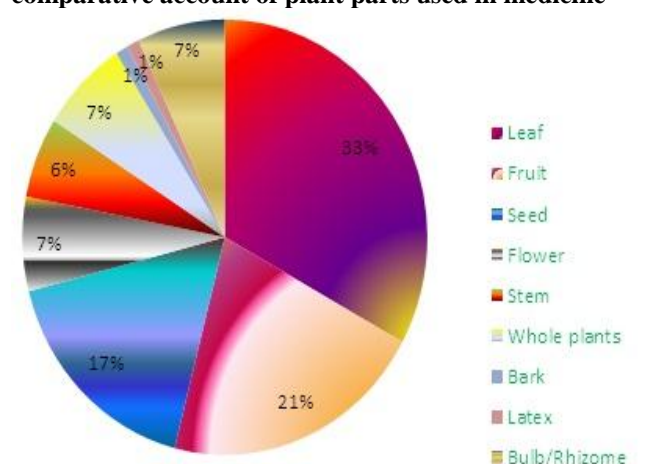


Fig 4. Medicinal plants of Palayamchettikulam comparative account of plant parts used in medicine



CONCLUSION

The data from this survey suggests some complex relationships between medicinal plant use and migrating people. Ethnobotanical research can provide a wealth of information regarding both past and present relationships between plants and the traditional societies. In addition to its traditional roles in economic botany and exploration of human cognition, ethnobotanical research has been applied to current areas of study such as biodiversity prospecting and vegetation management. It is hoped that, in the future, ethnobotany may play an increasingly important role in sustainable development and biodiversity conservation. In interaction

with the traditional areas of science, ethnobotany gives out several interrelated and interdisciplinary subjects link *ethnomedicine*, *ethnoarchaeology*, *ethnobotany*, *ethnoecology*, *ethnoagriculture*, *ethnonarcotics*, *ethnopharmacology*, etc. Local cultivation of medicinal plants and other economic species can play an important role in economic development of the area.

ACKNOWLEDGEMENT

None

CONFLICT OF INTEREST

None declared.

REFERENCES

- Schultes RE. (1992). Ethnobotany and technology in the Northwest Amazon: A partnership. In Sustainable harvest and marketing of rain forest products, Eds. Plotkin and Famolare, Island Press, CA, 45-76.
- Awoyemi OK, Ewa EE, Abdulkarim IA, Aduloju AR *et al.* (2012). Ethnobotanical assessment of herbal plants in southwestern Nigeria. *Academic research international*, 2, 50-57.
- Balick MJ. (1996). Transforming ethnobotany for the new millennium. *Annals of the Missouri Botanical Garden*, 83, 58-66.
- Principe P. (2005). Monetizing the pharmacological benefit of plants. Washington: US Environmental Protection Agency.
- Balakrishnan V, Prema P, Ravindran KC, Philip Robinson J. (2009). Ethnobotanical studies among villages from Dharapuram Taluk, Tamil Nadu, India. *Global J Pharmacol*. 3(1), 8-14.
- Emiru B, Ermias A, Wolde M, Degitu E. (2011). Management, use and ecology of medicinal plants in the degraded dry lands of Tigray, Northern Ethiopia. *Journal of Horticulture and Forestry*, 3(2), 32-41.
- Kunwar RM and Duwadee NPS. (2003). Ecology and Economy of NTFP's in Nepal: A case study from Dolpa and Jumla districts, Nepal. *Botanicaorientalis*, 3, 89-97.
- Heinrich M. (2000). Ethnobotany and its role in drug development. *Phytotherapy Res*. 14, 479-488.
- Awadh A, Ali N, Al-rahwi IK, Lindequist U. (2004). Some medicinal plants used in Yemeni herbal medicine to treat Malaria. *African J Trad Alt Med*. 1, 72-76.
- Gamble JS and Fischer CE. (1935). *Flora of the Presidency of Madras*.
- Anonymous, 1992. Wealth of India: Raw materials, Council of Scientific and Industrial Research Publication, New Delhi, (Revised). 3, 591-593.
- Asolkar LV, Kakkar KK, Chakra OJ. (1992). Secound supplement to glossary of Indian medicinal plants with active principles. Part I (A-K). Publication and Information Division, CSIR, New Delhi, India, 205-206.

13. Gogte VM. (2000). *Ayurvedic Pharmacology and Therapeutic Uses of Medicinal Plants (Dravyagunavigyan)*, 1st ed. Bharatiya Vidya Bhavan (SPARC), Mumbai Publications, 421-422.
14. Kirtikar KR and Basu BD. (2001). *Indian Medicinal Plants*, Lalit Mohan Basu, Allahabad, India, 1, 35-45.

Cite this article:

A. Antony Selvi and T. Leon Stephan Raj* *Ethnobotanical Study of Palayamchettikulam Plains In Tirunelveli District, Tamil Nadu, India.* *Acta Biomedica Scientia*, 2019;6(2): 58-71. DOI: <http://dx.doi.org/10.21276/abs.2019.6.2.4>



Attribution-NonCommercial-NoDerivatives 4.0 International