



**DOCUMENTATION OF ETHNOMEDICINAL PLANTS USED BY THE PEOPLE OF
POINT CALIMERE WILDLIFE AND BIRD SANCTUARY, TAMIL NADU**

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Article Received on 14/06/2017

Article Revised on 04/07/2017

Article Accepted on 25/07/2017

ABSTRACT

Globally, about 85% of the traditional medicines used for primary healthcare are derived from plants. Traditional medicine and ethnobotanical information plays an important role in scientific research, particularly when the literature and field work data have been properly evaluated. An ethnomedicinal systematic exploration of medicinal plants of Point Calimere, Nagapattinam district was conducted during February 2008 - June 2010. The ethnic groups found in the area of study are mainly Seenthil Valayars. They are one of the primitive tribes of Nagapattinam District and do not practice agriculture. They live in huts and do not domesticate any animals. Ethnomedicobotanical uses of 41 angiosperm plants species belonging to 25 families used by the people are given with their botanical name, local name, family and uses. The methods of preparation of drug and medicine among the ethno communities also discussed. The present study deals with the documentation of 39 wild edible plants belonging to 24 families consumed by tribal communities. The study also reveals 4 plants used for preparation of beverages. This type of traditional knowledge is a wealth for the human being and has great value in the context of today's Intellectual Property Rights (IPRs) scenario. Due to various social, economic and political factors this tradition is facing the threat of rapid erosion.

KEYWORDS: Ethnomedicinal plants, Kodikkarai village, Point Calimere, Seenthil Valayars.

INTRODUCTION

The Indian subcontinent represents one of the greatest emporia of ethnobotanical wealth. A large number of tribal communities live in remote and inaccessible parts of the country depend on plants for their basic needs and livelihood. India has one of the largest concentrations of tribal population in the world. There are over 300 tribal communities constituting about 0.8% of the total population of the country.^[1] The indigenous knowledge of plants is essential for the identification, cataloguing and documentation of plants. Much knowledge accumulated by tribal people regarding ethno-pharmacology, the identity, location and mode of use of myriad foodstuffs and drug plants, cure for specific ailments, contraceptives, abortifacients, arrow poisons, ichthyotoxic substances etc., remains unknown to the scientists^[2]. The objective of this study is to assess the richness of ethnomedicinal plant species used by the Kodikkarai forest areas and the traditional medical practices of the people. Similar ethnobotanical studies have been reported in several parts of India to protect the traditional knowledge.^[3,4,5,6] Documenting the indigenous knowledge through ethnobotanical studies is important

for the conservation of biological resources as well as their sustainable utilization

Area of Study

The area of study Point Calimere falls under the Nagapattinam district and it was under the erstwhile district of Tanjore of Tamil Nadu before bifurcation. Point Calimere (10 18" N, 79 51"E) the Calligicum of Ptolemy is a low promontory on the Coromandal coast of Tamil Nadu jutting out into the Bay of Bengal (Map: 1). Point Calimere (Kalli-medu in Tamil) is also called as Cape Calimere and Kodikkarai. It is the apex of the Cauvery river delta, and marks a nearly a right-angle turn in the coastline. In 1988, the sanctuary was enlarged to include the Great Vedaranyam Swamp and the Talainagar Reserve Forest, and renamed the Point Calimere Wildlife and Bird Sanctuary, with a total area of 377 km². Point Calimere, at a sea level above MSL in the eastern side ending with the sea gradually rises in the west up to 25mts in Ramarpadam located in the high sand dunes.^[7]

Demographic characteristics

The people who dwell in Point Calimere jungles are presently called "Seenthil Valayars" a name thrust on them by the Gandhi Smark Nidhi. Their total number in 1961 is recorded as 250 individuals.^[8] On enquiry from the senior members of the community it was found that these natives call themselves as Seenthil (Kodi) Valayars, Vettaikaran, Ambalakars or Adiaambalakars. It is said the name Seenthil Valayars came because these people are known to consume the climber Seenthil (*Tinospora cordifolia*) stems. But more accepted information is that Valayars used to sleep inside holes dug out along the dunes/coast to protect themselves from flies and mosquitoes. They cover the holes with green leaves and twigs. 2-5 persons or an entire family occupy one hole (Valai means hole in Tamil). Sarma^[8] reported that their place of living, a non-marshy area is not their original home and that they lived right in the salt marshes till 1960. This group has its own distinct form of worship, culture, language and tradition. Traditionally, the chief occupation of the people had been agriculture, agro-forestry, animal husbandry, etc.

At present 69 families of around 600 forest dwellers named as adivasis are depending on the forest for their livelihood. Though most of them have been changed to the modern civilian life still there are people (70%) rely on the forest. Adivasi Colony is a backward community of Ambalakars living in ramshackle huts of mud, coconut fronds and Palmyrah leaves on the edge of Kodikkarai village and small shrines attached to the colony (Plate: 1). Their traditional livelihood was the collection of non-timber forest products in the areas that are now in the sanctuary. These practices are now prohibited but not fully eliminated. Many of these people catch fish and small prawns in the nearby mudflats and swamps simply by groping in the water with their hands. Some work as day labour in the nearby salt pans. They have little interaction with other communities on the island. They used to collect the dried pala (*Manilkara hexandra*) leaves, heap them and sell them for their income. The dried Pala leaves are said to be good manure for the tobacco field. It is to be noted that the Vedaranyam tobacco has world recognition for its quality. The source of income for the forest dwellers are by means of collecting the fruits of Pala (*Manilkara hexandra*), Pazhupagal (*Momordica dioica*), Kazha (*Carissa spinarum*), seeds of Poonakatchi (*Mucuna pruriens*). They collect Honey, Sepia bones and crabs and sell them in the open markets. In addition they are now doing all labour and menial works to sustain their livelihood.

Methodology

The study was conducted during February 2008 - June 2010 covering the area of Point Calimere. Field observations in the tribal areas, their habitat and the plants used by them were made during the course of three years. The information was collected during field trips on the basis of interviews with village head and elderly persons whose knowledge was solely respected

and believed by the common village people. The collected plant species were identified and the information of usage was compared with some important Indian Medicinal Plant literature. The identification of plants was done referring the Mathew^[9], Nair and Henry^[10], Daniel and Umamaheswari^[11] and Gamble and Fischer.^[12]

RESULTS AND DISCUSSION

For centuries together, the forest has been noted for medicinal plants and wild life. It had been best utilized for the above purposes during the period of Chola Kings of 9-11 centuries. It is widely spoken that Buddhist monks of Sri Lanka used to visit this jungle for herbal collection in these periods. The folk claims recorded are enumerated into three parts namely plants of medicinal, nutritional value and beverages.

The flora of the study area is rich and provides diverse useful species. In this study, 41 Angiosperm plants species belonging to 25 families, which currently practiced ethnomedicinal value, are listed (Table: 1). Results were arranged in systematic order of botanical names, Local / vernacular name, family, ethnobotanical uses. Out of which 7 species belongs to herbs, 15 species belongs to shrub, 7 belongs to trees and 12 climbers. The plant parts used were leaves, fruits, tubers, flowers and whole plants for medicinal preparation. Same plant is often used for treating a number of different ailments. A multiple of home remedies are employed for the treatment of common ailments such as fever, headache, dysentery, constipation and minor injuries. Mostly, the drugs are prepared in the form of paste, powder, poultice, latex, decoction, extracts and smoke. Both fresh and dried parts of plants are used for making drugs in crude form. The method of use, the dosage and the duration, differ from one herbalist to another, and also from one locality to another. Diagnosis of the cause of illness either psychometric or physical always involves some sort of magical performance or rituals and not so much the examination of the patients. The prevailing diseases of the village people are fever, diarrhoea, dysentery, and skin diseases like ring worm, scabies and others. Common female diseases are amenorrhoea, dysmenorrhoea (painful menstruations, leucorrhoea etc.). They utilize singly or in combination for the treatment of 18 ailments.

Ethnobotanical analysis of wild edible plants

Although rice and jowar constituents the staple cereal of the Seenthil Valayars tribe of the region, a large number of wild edible plants also supplement their diet, which became helpful to overcome the deficiency of nutritional constituents, such as vitamins, minerals and carbohydrates. Overall a total of 39 plant species belonging to 38 genera of 24 families are used for edible purpose have been documented (Table: 2). Out of which 10 species belongs to herbs, 9 species belongs to shrub, 7 belongs to trees and 13 climbers. Climbers made the highest proportion of the edible species followed by

herbs trees and shrubs in descending order. The time and frequency of collecting various plants and plant parts varied from plant to plant depending upon their availability.

Most of these wild plants used for food are eaten in raw state or are utilized in cooked form. As far as consumption in raw form is concerned, the fruits/seeds are preferred more than the leaves, underground parts, shoots and flowers. A number of species are used as substitutes for staple food. Although many of these foods are used as minor items in the normal daily diet, yet these are important as major foods during lean months or at the time of scarcity. Of 358 the estimated 800 species of food plants in India^[13], most of the species covered in the present study are new to mankind and can be exploited commercially as a substitute for food in times of crisis. There is a good probability to establish canning or Jam industries nearby the area. Similar to present observations many studies reported on wild edible plants.^[14,15,16,17]

Majority of the fruits are eaten as raw when ripe. It is the sweetish pulp or the fleshy palatable pericarp of the ripe berries or drupes that is generally consumed e.g. *Manilkara hexandra*, *Zizyphus mauritiana*, *Dryptes sepiaria* and *Syzygium cumini*. The unripe fruit used as vegetables and in pickles (*Carissa spinarum*). The leaves of *Asystasia gangetica*, *Suaeda maritima*, *Sesuvium portulacastrum*, *Allmania nodiflora*, *Digera muricata*, *Trianthema portulacastrum*, *Portulacastrum oleracea* are used as vegetables. Species like *Dolichos trilobus*, *Borassus flabellifer*, *Dioscorea pentaphylla*, *Coccinia grandis* etc. bear tuberous roots which provide sufficient minerals. The fruits of 20 species are eaten as raw and sometimes made in to salads or pickles. They used to collect the dried Pala (*Manilkara hexandra*) leaves, heap them and sell them for their income. The dried Pala leaves are said to be good manure for the tobacco field. It is to be noted that the Vedaranyam tobacco has world recognition for its quality. The source of income for the forest dwellers are by means of collecting the fruits of Pala (*Manilkara hexandra*), Pazhupalgal (*Momordica dioica*), Kazha (*Carissa spinarum*), seeds of Poonaikatchi (*Mucuna pruriens*). They collect Honey, Sepia bones and crabs and sell them in the open markets. A peculiar food habit of eating boiled stem of *Tinospora cordifolia* (a non-bitter variety) fruits of *Momordica dioica*, young fruits of *Cephalandra indica*, seeds of *Mucuna pruriens*, seeds of *Canavalia indica*, as their routine food items is much prevalent among these people. Keeping in view of the medicinal properties of the plants as anti-diabetic and their daily consumption by these people may reveal the exact role of them in human health.

It is interesting to mention that four species are widely used for preparation of beverages (Table: 3). Stem cuttings of Seenthil Kodi are dried and powdered and used as coffee powder.

Table: 1 list of the ethnomedicinal plants used by Seenthil Kodi Valayars in the Ponit Calimere

<i>Bot. Name & family</i>	<i>Tamil Name</i>	<i>Ailment</i>	<i>Dosage/preparation</i>
<i>Acanthospermum hispidum</i> DC. Asteraceae	Naymul	Rat bites	100 ml. of decoction is given daily for 40 days.
<i>Anisomeles malabarica</i> (L.) R.Br. ex Sims <i>Labiatae</i>	Manthapatchilai	Indigestion	1-2 teaspoon of fresh leaf juice is given internally twice a day for three days to treat indigestion.
<i>Aristolochia indica</i> L. Aristolochiaceae	Ishvaramooli	Wasp sting	The root bark is made into fine paste and applied over the affected part.
<i>Asystasia gangetica</i> (L.) T. Anderson <i>Acanthaceae</i>	Pasaththi keerai	Excess body heat.	The leaves are boiled and taken internally. This gives cooling effect.
<i>Azima tetracantha</i> Lam. Salvadoraceae	Mulchankan		A handful of leaves of i and ii are pounded with little water, and the juice is filtered. The filtered juice after plunged with a heated iron rod is administered internally. Dose: Adult: 150 ml. Infants: 75ml. or part thereof.
<i>Toddalia asiatica</i> (L.) Lam Rutaceae	Milagucharanai		
<i>Calotropis gigantea</i> (L.)R.Br. Asclepiadaceae	Erukku	Rheumatic pain	The leaf juice of this plant applied over the affected parts reduces pain and swelling.
<i>Canthium dicoccum</i> (Gaertn) Merrill. <i>Rubiaceae</i>	Muna	Bowel complaints of children	Decoction of the leaves of item 1 and root of item 2 is given internally. Two tea spoons twice a day.
<i>Glycosmis pentaphylla</i> (Retz.) Correa <i>Rutaceae</i>	Konji		
<i>Capparis roundifolia</i> Capparaceae		Oedematous swelling	The leaves are fried and made into chutney. This is taken internally in cases of oedematous swellings.
<i>Capparis sepiaria</i> L. Capparidaceae	Shenkathari	Scabies, Eczema	The inner bark of the root is crushed and the juice is applied externally.
<i>Capparis zeylanica</i> L. Capparaceae	Athandai	Kapha diseases	The fruits are dried and taken internally. It is said to provide good relief in kapha diseases.
<i>Cassia occidentalis</i> L. Caesalpiniaceae	Ponthagarai	Intertrigo	The leaf paste is administered.
<i>Cassia tora</i> L. <i>Caesalpiniaceae</i>	Tagarai	Pruritis	Seeds are soaked in water and made into a paste. It is applied to treat nonspecific pruritus and in skin infections
<i>Cissus quadrangularis</i> L. Vitaceae	Pirandai	Body pain	Young leaves and tender shoots with dried ginger and black pepper is prepared into a decoction and taken internally.
<i>Cissus vitiginea</i> L. <i>Vitaceae</i>	Panadaippan	Indolent ulcers	The inner bark of the vine is ground to a paste and applied to heal wounds, indolent ulcers etc. Note Forest dwellers of Point Calimere are found to apply the inner bark of this vine, for fresh wounds and ulcers. They composed this information from the wild boars of the forest. Wild boars after fierce fighting with one another are often seen to rub their wounds and bleeding spots to the crushed inner bark of this plant to stop bleeding and get healed. Before rubbing, the boars tear off the outer bark and crush the inner bark by biting it repeatedly.
<i>Cirullus vulgaris</i> Schrad. Cucurbitaceae	Turbuj	Jaundice	The juice of the fruit is given about 150ml. twice a day for few days. Collection of the juice Matured fruit is opened at the top and the juice therein is stirred well by hand. The juice is filtered and the seeds and other particles are discarded.

<i>Commiphora berryi</i> (Arn.) Engl. <i>Burseraceae</i>	Kiluvai	Wounds and cuts	Leaf paste used as a local application once in a day till healing is observed.
<i>Croton bonplandianus</i> Baillon <i>Euphorbiaceae</i>	Milagai poondu	Wounds and cuts	Leaf paste is applied over the affected parts.
<i>Dodonaea viscosa</i> L. <i>Sapindaceae</i>	Virali	Rheumatic complaints	Fresh leaves boiled in rice wash steam are bandaged over the inflamed areas to relieve pain and swellings.
<i>Dolichos trilobus</i> L. <i>Papilionaceae</i>	Minnikizhangu	Skin diseases	Tubers used in 3 different forms. In initial stage the tubers are boiled and eaten. In little advanced stage the tubers are burnt and eaten. In advanced stage fresh tubers are eaten as such.
<i>Enicostema littorale</i> Blume <i>Gentianaceae</i>	Vellarugu	Sufferings from the prick of Thirukkai Fish	The leaf juice pounded with lime is applied on the spots to subside the prickling pain.
<i>Euphorbia antiquorum</i> L. <i>Euphorbiaceae</i>	Kallipal	Sufferings due to Thorn prick	The latex of this succulent is applied on the affected area which promotes vesicant action and thereby expelling the thorn and dirt.
<i>Exoecaria agallocha</i> L. <i>Euphorbiaceae</i>	Thillai pal	Boils, Carbuncles, etc.	Latex is applied on boils or carbuncles to suppress or sometimes to open.
<i>Gmelina asiatica</i> L. <i>Verbenaceae</i>	Kumilam	Dandruff	The pulp of the fruit is applied on scalp for 4 to 5 days in the above case. This is said to provide remarkable remedy
<i>Lablab purpureus</i> (L.) Sweet. <i>Papilionaceae</i>	Mochchai	Wasp sting	The leaf decoction is administered internally.
<i>Nymphaea pubescens</i> Willd. <i>Nymphaeaceae</i>	Alli	Micturition	Four or five ripe fruits of this plant are eaten as fresh.
<i>Pedaliium murex</i> L. <i>Pedaliaceae</i>	Anai nerunjil	Excess heat of the body	A handful of the plant pounded and the juice is applied on head for cooling the body.
<i>Pentatropis capensis</i> (L.) Bullock <i>Asclepiadaceae</i>	Uppilankodi Kallamkappan	Bloating in children	2 teaspoons of freshly expressed leaf juice is prescribed once in a day for 3 days.
		Allergic reddishness of skin in infants.	Fresh leaf juice is given internally. 1-2 teaspoon once in a day for a week.
<i>Phyla nodiflora</i> Rich. <i>Verbenaceae</i>	Poduthalai	Headache	The leaf paste mixed with the leaf paste of Neem (<i>Azadirachta indica</i> A.Juss.) is put on a heated red brick and covered by piece of cloth. This is fomented on forehead to absorb the water accumulated in the head causing severe head ache.
<i>Plecosperrum spinosum</i> Trec. <i>Moraceae</i>	Thoratti	Ill health due to evil spirit	The thorny stick is used as walking sticks by the affected persons to get rid of the evil spirit.
<i>Pongamia pinnata</i> (L.) Nees. <i>Papilionaceae</i>	Pungu	Whooping cough	A hole is made in the centre of the seeds and tied around the neck
<i>Salvadora persica</i> L. <i>Salvadoraceae</i>	Vagai maram	Body pain and pains in joints due to gas troubles	A decoction of the root bark with black pepper and garlic is taken with cooked rice.
<i>Solanum trilobatum</i> L. <i>Solanaceae</i>	Thoothuvezhai	Cough	The leaves are fried and made into chutney. This is taken internally to alleviate cough.
<i>Thespesia populnea</i> (L.) Sol.ex <i>Correa</i> <i>Malvaceae</i>	Poovarasu	Burns	The dried powdered bark of item no. i and the powdered ripe leaves of item no. ii are mixed with coconut oil and applied over the burns.
<i>Ficus religiosa</i> L. <i>Moraceae</i>	Arasu		
<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook.f. & Thomson <i>Menispermaceae</i>	Seenthil	Body pain, fever, head ache and other ailments	The mature stems are chopped into small pieces and stored in glass bottles. 5-10 gms of powder are given with hot water in the above mentioned ailments. Twice a day for few

			days.
<i>Trichosanthus bracteata</i> (Lam) Voigt <i>Cucurbitaceae</i>	Korattai	Headache (Migraine).	Thailam (medicated oil) prepared with this fruit is used as bathing oil to alleviate headache.
<i>Vitex negundo</i> L. <i>Verbenaceae</i>	Nochchi	Wounds and cuts	The leaf juice mixed with lime is bandaged over the wounds and cuts.
<i>Walsura trifolia</i> (A.Juss.)Harms. <i>Meliaceae</i>	Kaipalai, Walsurai	Wounds, Cuts etc.	Crushed bark juice treated in hot sun is applied externally. Once in a day for 3 days.
<i>Wattakaka volubilis</i> (L.f.)Stapf. <i>Asclepiadaceae</i>	Perunkurinja	Rheumatic pain.	The leaf juice is applied over the affected area twice a day followed by hot water fomentation.

Table 2: List of the wild edible plants used by Seenthil Kodi Valayars in the Ponit Calimere

Bot. name / Family	Vernacular name	Uses
<i>Allmania nodiflora</i> (L.) R. Br. ex Wight <i>Amaranthaceae</i>	Thumadi keerai	The dishes prepared from the leaves
<i>Asystasia gangetica</i> (L.) T. Anderson <i>Acanthaceae</i>	Pasaththi keerai	Leaves are cooked and eaten as spinach. you8ng leaves are pr4eferred Forest dwellers collect and sell this leaves to the villagers.
<i>Borassus flabellifer</i> L. <i>Arecaceae</i>	Panai	Jellies like kernels (Nungu (Tamil)) of tender fruits are eaten fresh. Ripe fruits are cooked and the pulp is eaten. Starchy tubers (Panankizhangu –Tamil) are boiled and eaten.
<i>Canavalia virosa</i> W. &A. <i>Papilionaceae</i>	Koliavarai	The seeds are roasted or boiled in water and eaten. Young fruits as vegetables.
<i>Capparis zeylanica</i> L. <i>Capparaceae</i>	Athondai	The green fruits are sliced, dried and stored during season. It is roasted and eaten at times of scarcity of food.
<i>Carissa spinarum</i> L. <i>Apocynaceae</i>	Kazha	Ripe fruits are edible and eaten.
<i>Cissus quadrangularis</i> L. <i>Vitaceae</i>	Pirandai	Ripe fruits are red in colour and fleshy. Sweet pulp is eaten.
<i>Coccinia grandis</i> (L.) Voigt <i>Cucurbitaceae</i>	Kovai Kizhangu	Tubers of young plants are cooked and eaten. They are also heated in fire and eaten
<i>Digera muricata</i> (L.) Mart. <i>Amaranthaceae</i>	Thoyya keerai	The dishes prepared from the leaves
<i>Dioscorea pentaphylla</i> L. <i>Dioscoreaceae</i>	Vallikizhangu	Tubers are cooked and eaten.
<i>Diospyros ferrea</i> (Willd.) Bakh. <i>Ebenaceae</i>	Thuvarai	Ripe fruits are eaten.
<i>Dolichos trilobus</i> L. <i>Papilionaceae</i>	Minnikizhangu	The long fleshy roots are cooked and eaten after discarding the outer skin.
<i>Dryptes sepiaria</i> (W. & A.) Pax. & Hoffm. <i>Euphorbiaceae</i>	Veerai	Ripe fruits are edible.
<i>Ehretia microphylla</i> Lam.	Kuruvitchi	The leaf along with the bark of <i>Cassia auriculata</i> L. is used as a substitute for betel and betel nut.

Boraginaceae		
<i>Flacourtia indica</i> (Burm.f.) Merr. Flacourtiaceae	Sortukazha	Ripe fruits are purple brown in colour and sweet in taste. The pulpy portion is eaten. Skin and seeds are discarded.
<i>Glycosmis pentaphylla</i> (Retz.) DC. Euphorbiaceae	Konji	The fruit are eaten fresh.
<i>Lablab purpureus</i> (L.) Sweet. Papilionaceae	Kattumochai	The seeds are roasted / boiled and eaten
<i>Manilkara hexandra</i> (Roxb.) Dubard. Sapotaceae	Pala	The ripe fruits are collected in large quantity and eaten. The fruits are sometimes brought to the villages and sold by the forest dwellers.
<i>Memecylon umbellatum</i> Burm.f. Melastomaceae	Kaya	The ripe fruits are eaten.
<i>Momordica dioica</i> Roxb. Cucurbitaceae	Palupagal	This is one of the vegetables extensively collected by the forest dwellers and sold in the nearby villages. The muricated fruits are sliced and boiled in water and roasted in oil and eaten. The tubers of this plant are not eaten by the forest dwellers but wild boars are very fond of eating these tubers.
<i>Mucuna pruriens</i> (L.) DC. Papilionaceae	Ponnaikatchi	The seeds are collected extensively during Jun. to August. Seeds are roasted and then boiled. After removing the outer skin the kernels are ground to flour and the flour is washed in water at least for 10 times, dried and stored. The flour along with coconut or chillies is taken as food.. Consuming excess of the flour with water is said to produce sedation. This item is also one of their major foods.
<i>Ochna obtusata</i> var. <i>obtusata</i> L. Ochnaceae	Chilanthipoo	The inner bark chopped into small pieces and dried is used as a substitute for betel nut.
<i>Opuntia vularis</i> Mill. Cactaceae	Sappathikalli	The ripe fruits are flesh red in colour and sweet in taste. The thorns on the fruits are carefully removed and the inner flesh is eaten.
<i>Phoenix pusilla</i> Gaertn. Arecaceae	Chirteechu	The fruit are sweet and eaten. The apical shoot is also eaten.
<i>Physalis minima</i> L. Solanaceae	Sodakkuthakkali	Ripe fruits are sweet and eaten fresh.
<i>Pithecolobium dulce</i> (Roxb.) Benth. Mimosoideae	Kodukkaipuli	The fruits are moniliform and dehisce when mature. The black seeds are covered with fleshy white or reddish aril which is edible and is very sweet in taste.
<i>Portulaca oleracea</i> L. <i>Potulacaceae</i>	Pasalaikeerai	The dishes prepared from the leaves
<i>Rivea hypocrateriformis</i> (Desr.) Choisy Convolvulaceae	Musuttai	Leaves are boiled and eaten like spinach.
<i>Salacia chinensis</i> L. Hippocrateaceae	Karukka	The ripe fruits red, containing 1-2 seeds surrounded by sweet pulp. The fleshy pulp is edible.
<i>Scutia myrtina</i> Kurz. Rhamnaceae	Thoradi	Ripe fruits are eaten.
<i>Securinega leucopyrus</i> (Willd.) Muell. Arg. Euphorbiaceae	Verppoola	The ripe fruits are collected in large quantity and eaten. The fruits are sometimes brought to the villages and sold by the forest dwellers.
<i>Sesuvium portulacastrum</i> L. Chenopodiaceae	Vangaravatchi keerai	The stems with the leaves are cut into small pieces and cooked. This is a side dish for the cooked rice.
<i>Solanum americanum</i> Mill. Solanaceae	Manathakkali	The leaves are cooked and eaten as pot herb. Ripe fruits are eaten fresh. Green fruits are impregnated with buttermilk and salt. It is dried, fried and eaten.

<i>Suaeda maritima</i> (L.) Dumort Chenopodiaceae	Nallumari	The boiled leaves of this plant and leaves of <i>Moringa oleifera</i> Lam. are roasted and eaten.
<i>Syzygium cumini</i> (L.) Skeels Myrtaceae	Naval	The ripe fruits are collected in large quantity and eaten. The fruits are sometimes brought to the villages and sold by the forest dwellers.
<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook. f. Thomson Menispermaceae	Seenthil Kodi	Two types of vines are found in this area. The forest dwellers of Point Calimere easily detected these vines by its sweet taste from bitter plant which bears the same vernacular names as Seenthil Kodi. The vines are collected, chopped into small pieces, and boiled in water. The outer skin is peeled off and the inner portion is chewed and eaten. This item is found to be a major food for the forest dwellers in all seasons
<i>Trainthema portulacastrum</i> L. Aizoaceae	Vellai charanai	The dishes prepared from the leaves
<i>Zizyphus mauritiana</i> Lam. Rhamnaceae	Illanthai	The red globose ripe fruits are sweet in taste. The fleshy portion is eaten.
<i>Zizyphus oenoplia</i> Mill Rhamnaceae	Choorai	The black globose drupes acrid in taste (fruits) are eaten occasionally.

Table 3: List of the plants used in preparation of beverages by Seenthil Kodi Valayars in the Ponit Calimere

<i>Botanical Name</i>	<i>Tamil Name</i>	<i>Preparation</i>
<i>Cassia occidentalis</i> L. Caesalpiniaceae	Ponthagarai	The seeds are dried and powdered. The powdered seeds are then mixed with coffee powder and are used in the preparation of coffee.
<i>Coccinia grandis</i> (L.) Voight. Cucurbitaceae	Kovai	The seedlings have tubers. Tubers are squeezed and the juice is taken as a beverage.
<i>Hemidesmus indicus</i> (L.) R.Br. Asclepiadaceae	Nannari	The root is aromatic. It is put in drinking water during summer to impart cooling aroma.
<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook. f. Thomson Menispermaceae	Seenthil Kodi	The stem cuttings are dried and powdered and used as coffee powder. This drink is said to prevent fever and diabetes.

CONCLUSION

The results of a study of Ethnobotany among the Seenthil Kodi Valayars of Point Calimere give the salient features of their plant utilization and management strategies. They have a rich Ethnobotanic heritage that is however disappearing due to the rapid pace of acculturation, modernization and technological developments. Immediate steps are to be taken to register and recognize the local knowledge and help in its revitalization. Unlike most other tribes, the Seenthil Valayars do not have tribal medical practitioners, but by and large all the elders have knowledge about medicinal plants. As the tribe itself is degenerating rapidly, urgent efforts are needed not only to catalogue all the information about plants, but steps need to be taken to protect and rehabilitate the Seenthil Valayars tribe in the islands. The ethnobotanical information gathered in this study may be considered as 'clues' for prioritizing species for further critical scientific evaluation and bioprospection, leading to the development of value added products for human welfare.

ACKNOWLEDGEMENT

The authors are extremely grateful to all the informants for sharing their oral traditional knowledge during the fieldwork.

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