

Traditional Medicinal Herbs Used by Indigenous people of Agastheeswaram Taluk in Kanyakumari District, Tamilnadu, Southern India

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Abstract: Traditional uses of herbs in healthcare practices are providing clues to new areas of research; However, information on the uses of indigenous plants for medicine is not well documented from many rural areas of Tamilnadu including Kanyakumari District. The study aimed to look into the diversity of medicinal herbs that are used by local people of Agastheeswaram Taluk, Kanyakumari District, Tamilnadu, Southern India. Extensive field surveys are conducted in 12 areas for about two years from October 2014- October 2016 to survey the medicinal herbs and collect the information from villagers. A total of 150 medicinal herbs used by local people were documented. These medicinal herbs were distributed in 118 genera belonging to 46 families and 22 order under 8 clades / groups. Among the 150 species, 120 species belongs to dicotyledons and 30 species belongs to monocotyledons. The dominant clade is Asterids (53 species from 45 genera), followed by Rosides (38 species from 29 genera), Monocots (30 species from 24 genera), Superasterids (23 species from 16 genera). The most dominant family in the present study area is Asteraceae with 15 species followed by Amaranthaceae (12 species), Fabaceae (10 species), Poaceae (8 species), Euphorbiaceae (7 species). All these 150 medicinal herbs ethnomedicinally used, next to that 108 species used in folklore followed by Siddha (98 species), Ayurveda (86 species), Unani (38 species) and Homeopathy 13 species). Maximum mode of preparation juice (66 species) followed by paste (56 species), decoction (40 species). The maximum of whole plant (75 species) used for medicine followed by leaves (54 species), roots (19 species), seeds (12 species). This study focused the importance, utilization and conservation of the medicinal herbs among the people.

Key words: Herbs, Traditional medicine, Indigenous people, Agastheeswaram Taluk

I. INTRODUCTION

India is rich diversity of medicinal plants. The supply base of 90% herbal raw drugs used in the manufacture of Ayurveda, Sidda, Unani & Homoeopathy systems of medicines is largely from the wild (Rajalakshmi *et al.*, 2016). Herbal medicines are drugs made from herbs or plants. They are also commonly referred to as phytomedicines, plant medicines, green medicines, traditional medicine potions, traditional remedies, plant drugs and forest health products among others (Osemene, 2011; Elujoba, 1998). Over 80% of people living in developing countries depend on herbal medicines as their immediate choice in the treatment of diseases showing its relevance and importance in Primary Health Care (Moody, 2007). Currently, dispensing herbs/active ingredients is on the increase as herbal medicine is becoming more popular (Ekor, 2013). Herbal medicines have been recognized by the WHO as the most popular form of traditional medicine, and thus, highly lucrative in the international medicine market (Gideon *et al.*, 2016).

In India, medicinal plants are widely used by all sections of the population and it has been estimated that over 7500 species of plants are used by several ethnic communities (Anthropological Survey of India, 1994). Even today, tribals and certain local communities in India practice herbal medicine to cure a variety of diseases and disorders (Mahishi *et al.*, 2005). Medicinal plants provide accessible and culturally relevant sources of primary health care. The remedies based on these plants often have minimal side effects (Lambert *et al.*, 1997).

The art of herbal healing has very deep root in Indian culture and folklore. Medicinal plants have been playing an important role for the survival of the ethnic communities, who live in remote villages and forests (Dubey *et al.*, 2004). Traditional knowledge about medicinal plants has been passed on orally from generation without any written document and is still retained by various indigenous groups of people around the world (Samy and Ignacimuthu, 2000). Traditional medicines are easy to consume by the rural people because they were obtained from the local plant species seen around us. Documentation of the indigenous knowledge through ethno-botanical studies is important for the conservation and utilization of biological resources (Muthu *et al.*, 2006). The local people depend upon these plants are due to the effective nature, non availability of medical felicities and ethno cultural beliefs (Rajalakshmi *et al.*, 2016). Therefore, establishment of the local names and indigenous uses of plants has significant potential societal benefits (Gebelein *et al.*, 1997).

Traditional knowledge on uses of plant parts as medicine used by the tribal and rural people were well documented in many literatures in India (Das and Tag, 2006; Pradhan and Swain, 2007; Sanilkumar and Thomas, 2007; Dangwal *et al.*, 2010; Lodha, 2016; Rajith and Ramachandran 2010; Thomas *et al.*, 2013; Alam, 2014; Jayapriya and Gopalan, 2014; Deori, 2015; Mandal *et al.*, 2015 and Joseph *et al.*, 2015). It has been estimated that about 35,000 plant taxa are being used for medicinal purposes, whereas in India, more than 7,000-7,500 plant taxa are used for their therapeutic efficacy (Samy and Ignacimuthu, 1998; Samy and Ignacimuthu, 2000 and Kamboj, 2000). There are still big gaps in the work of completing an exhaustive inventory of the medicinal plants of India.

In Tamilnadu state ethnomedical value of plants in possession of various tribals and rural communities for treating various diseases and disorders has been done to some extent (Anandan and Veluchamy, 1986; Viswanathan, 2004; Ignacimuthu *et al.*, 2006; Ayyanar *et al.*, 2008; Muthukumar and Samuel, 2010; Anbarashan *et al.*, 2011; Samyurai *et al.*, 2012; Sivasankari *et al.*, 2013; Ayyanar, 2013; Jeyakumar *et al.*, 2014; Arulappan and Britto, 2014 and Rajalakshmi *et al.*, 2016). A perusal of these reports suggested that the ethnobotanical survey in Tamilnadu is incomplete and traditional herbal healing knowledge of a large number of rural communities need documentation.

Traditional usage of herbal medicines used by the indigenous or rural people were well documented in many literatures in Kanyakumari (Kingston *et al.*, 2007; Kingston *et al.*, 2009; Sukumaran and Raj, 2010; Johnsy *et al.*, 2012; Divya *et al.*, 2013; Pushpakarani and Natarajan, 2014; Jenisha and Jeeva, 2014; Sukumaran *et al.*, 2014 and Usha Rani and Jeyanthi, 2016) There is no previous report in the

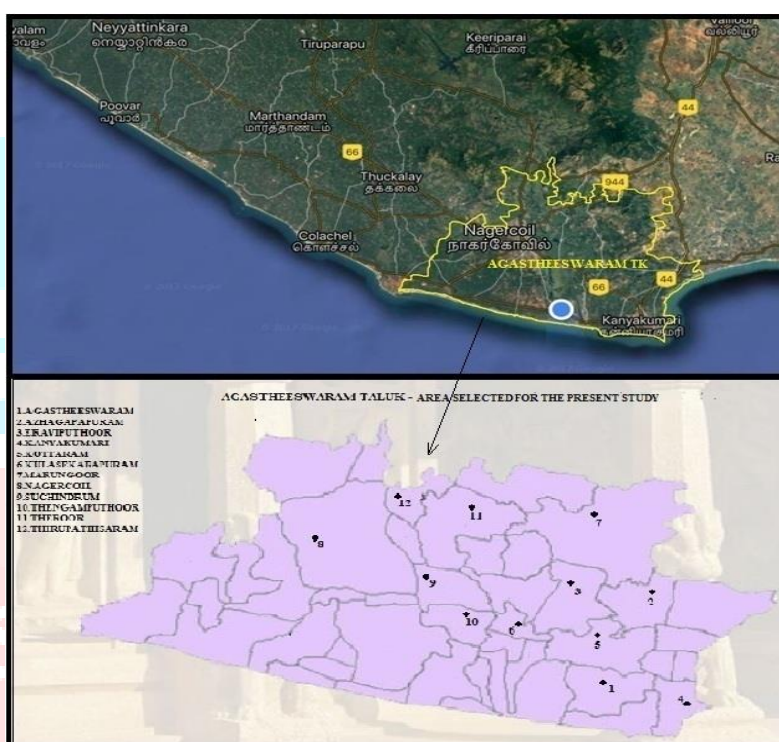
records of traditional knowledge of herbal medicines from Agastheeswaram Taluk in Kanyakumari district, Tamilnadu. An attempt has therefore been made to collect and document the traditional herbal medicines in Agastheeswaram Taluk in Kanyakumari District.

II. MATERIALS AND METHODS

2.1. Study area

Kanyakumari is the southernmost district of Tamilnadu. This district lies between 77°07' - 77°35' E, 08°05' - 08°35' N, and it occupies an area of about 1672 sq. km. The District is bound by Tirunelveli District on the north and the east. The South Eastern boundary is the Gulf of Mannar. On the South and the South West, the boundaries are the Indian Ocean and the Arabian Sea. On the West and North West it is bound by Kerala. The rainfall varies from 103-310 cm and altitude is about 1,829 m asl (Raj, 2002). Topographically, the district may be broadly classified as coastal, middle, and mountainous regions (Henry and Swaminathan, 1981 and Spillett, 1968). This district is comprised of four Taluks namely, Agastheeswaram, Thovalai, Kalkulam and Vilavancode. In Agastheeswaram Taluk 21 towns and 19 villages were located, Out of these only 12 areas were selected for the present study viz., Agastheeswaram (N 8° 5.290' - E 77° 30.979'), Azhagapapuram (N 8° 9.047' - E 77° 34.613'), Eraviputhoor (N 8° 10.224' - E 77° 29.791'), Kanyakumari (N 8° 6.619' - E 77° 32.397'), Kottaram (N 8° 7.167' - E 77° 30.644'), Kulasekarapuram (N 8° 8.694' - E 77° 29.880'), Marungoor (N 8° 11.709' - E 77° 30.044'), Nagercoil (N 8° 11.857' - E 77° 26.903'), Suchindrum (N 8° 8.852' - E 77° 27.435'), Thengamputhoor (N 8° 7.132' - E 77° 27.448'), Theroor (N 8° 10.922' - E 77° 27.406') and Thirupathisaram (N 8° 12.422' - E 77° 27.422') (Fig. 1).

Figure 1 Satellite map of Kanyakumari District- Agastheeswaram Taluk



2.2. Medicinal plant survey

An extensive systematic field survey of the plants for the period of two years (Oct 2014 to Oct 2016). The plant specimens were collected at various seasons and that different reproductive stages (flower either fruit or both) from their natural habitats, interviews were conducted with local people, medicine men and elderly settlers near by the ponds for documenting indigenous knowledge of the local people and utilization value of the plant species. The interviews were made particularly for knowing medicinal value of the herbs and plant parts used of each plant species the results were tabulated with all details (Jain, 1991). The information about plants and their local name, parts used for preparation of drug, mode of administration and specific comments were documented in the field survey. The medicinal use of species was cross checked through the literature available.

2.3. Preservation and identification of plant materials

The collected specimens are taxonomically identified with the help of various published monographs, taxonomic revisions and floras (Gamble and Fischer, 1915- 1935; Nair and Henry, 1983; Henry *et al.*, 1987; Henry *et al.*, 1989; Matthew, 1993; Mohanan and Henry, 1994; Santapau and Henry, 1994; Kabeer and Nair, 2009) and by using the field keys devised by Subramanyam (1962). Authentication of the identity of plant species were confirmed by specimens deposited in Botanical Survey of India, Southern Circle, Coimbatore, Jawaharlal Nehru Tropical Botanical Garden and Research Institute (JNTBGRD) Palode, Trivandrum, Kerala and Botany Department of Scott Christian College, Nagercoil. APG IV system of classification (2016) was followed to clarify the species were verified with IPNI (International Plant Name Index). The voucher specimens collected from the field were prepared the herbarium and were deposited in the P.G. & Research Department of Botany, S.T. Hindu College, Nagercoil.

III. RESULTS AND DISCUSSION

The present study documents a total of 150 taxa distributed in 119 genera, representing 46 families as per APG IV classification. These taxa are distributed in 8 clades/ grades and 22 orders Table 1. 35% of the taxa are reported from Asterids (53 species), 25% from Rosids

(38 species), 20% from Monocots (30 species), 15% from Superasterids (23 species) are the major clades/ groups (Fig. 2). Of the recorded species in the present study area, Dicotyledons (120 species) belonging from 95 genera and 36 families was the largest number of plant groups followed by Monocotyledons (30 species) belonging from 24 genera and 10 families Table 2.

Table 1 List of traditionally important medicinal herbs from select areas of Agastheeswaram Taluk in Kanyakumari District, Tamilnadu

S.No	Clade/Groups/Orders	Family Name/Botanical name	Tamil Name	Uses in medicinal systems	Life form	Parts Used	Indigenous uses	Mode of preparation	Ailments
	ANA GRADE								
	Nymphaeales	Nymphaeaceae							
1		<i>Nymphaea nouchali</i> Burm. f.	Alli	AY,SD,UN,FL,EM	WP	R	M	FP	Heart palpitation, dysentery
2		<i>N. pubescens</i> Willd.	Vellamabal, Alli	AY,SD,UN,FL,EM	FLA H	Rh, R	M	D, Po, Pa, J	Blood dysentery, piles, dyspepsia, menorrhagia, abortion
	MAGNOLIDS								
	Piperales	Piperaceae							
3		<i>Peperomia pellucida</i> (L.) Kunth.	Diya thipilli	FL,EM	WP	Wp	M	FP	Wounds
	MONOCOTS								
	Alismatales	Araceae							
4		<i>Colocasia esculenta</i> (L.) Schott.	Sempu, Shamakkilangu	AY,UN,FL,EM	WP	L, R, P	M, O	J	Body heat, stimulant, anaemia, injuries, constipation,
5		<i>Lemna perpusilla</i> Torr.		EM	FFH	Wp	M, F	E	Scabies, wounds, cuts
6		<i>Pistia stratiotes</i> L.	Agasa thamarai	AY,SD,UN,FL,EM	FFH	Wp	M	J, Pa, D	Piles, dysentery, coughing, fever, constipation, asthma, cough, skin diseases, swelling, leprosy, eczema, irregular urination
		Hydrocharitaceae							
7		<i>Hydrilla verticillata</i> (L.f.) Royle	Amiranappaci	FL,EM	SAH	Wp	M, F	FP	Inflammation, antidandruff, ulcer
8		<i>Ottelia alismoides</i> (L.) Pers.	Nirkkuliri	SD,FL,EM	SAH	Fr, L	M	Pa	Diuretic, rubificent
		Aponogetonaceae							
9		<i>Aponogeton natans</i> (L.) Engl.&K.Krause	Kotti kizhangu	SD,FL,EM	FLA H	L	M	Pa	Cuts, wounds

	Commelinales	Commelinaceae							
10		<i>Commelina benghalensis</i> L.	Kanangkozai, Aduthinnathalai	AY,SD,FL,EM	WP	Wp	M	E, Pa	Laxative, boils, itches, stomach pain, bronchitis, cough, haemorrhage, fever, cuts, wounds
11		<i>C. diffusa</i> Burm.f.		FL,EM	WP	Wp	M	E	Wounds, itches, boils, injuries
12		<i>C. erecta</i> L.		EM	WP	L	M	Pa	Rheumatic swellings, skin inflammation, leprosy, constipation
13		<i>Cyanotis axillaris</i> (L.) D.Don.ex Sweet	Vazhukai pul, nirpullu	SD,FL,EM	EAH	Wp	M	FP	Dropsy, whooping cough
14		<i>C. cristata</i> (L.) D.Don	Kuthirai	FL,EM	EAH	R	M	Pa	swellings
		Pontederiaceae							
15		<i>Eichhornia crassipes</i> (Mart.) Solms.	Venkayattamarai, Agayathamara i	SD,EM	FFH	L, R, FI	M, F	J, D	Skin diseases, toothache, goiter, hairloss
16		<i>Monochoria vaginalis</i> (Burm.f.) C.Presl	Kaimkuvalam	SD,EM	EAH	Fl, L, R	M, Fo	FP	Haematopathy, cough, asthma, scurvy, boils, haemorrhages. toothache, cold
	Zingiberales	Cannaceae							
17		<i>Canna indica</i> L.	Kal- valai	AY,SD,FL,EM	WP	R	M, O	J	Diuretic, digestion, ringworms
		Zingiberaceae							
18		<i>Alpinia calcarata</i> (Haw.) Roscoe.	Perarathai	AY,EM	WP	Rh	M	Po, Pa	Indigestion, cough, cold, fever, inflammation
	Poales	Typhaceae							
19		<i>Typha angustifolia</i> L.	Sambu	AY,UN,EM	EAH	L, Fr	M. Ma, Cr	FP	wounds, ulcers
		Cyperaceae							
20		<i>Bulbostylis barbata</i> (Rottb.) C.B.Clarke	Thukukaclipul	SD,EM	WP	Wp	M	D	Dysentery
21		<i>Cyperus difformis</i> L.		EM	WP	R	M	E	Fever, cold, cough
22		<i>C. iria</i> L.	Yanaikkitti	SD,FL,EM	EAH	Wp	M	E	Astringent, stomachache, stimulant,

									fever, cold, cough
23		<i>C. rotundus</i> L.	Korai, Korai kilangu	AY,SD,UN,EM	EAH	Wp	M	Pa, Po	Nausea, fever, inflammation, leucorrhoea, diarrhea, vomiting, intestinal worms
24		<i>Kyllinga brevifolia</i> Rottb.		FL,EM	WP	R	M	D	Liver disorders, diabetics
25		<i>K. nemoralis</i> (J.R.Forst& G.Forst.) Dandy ex Hutch.&Dalziel	Velutta nirbasi	AY,FL,EM	WP	Tu	M	D	Dysentery
		Poaceae							
26		<i>Apluda mutica</i> L.	Mandapul	FL,EM	EAH	Wp	M	E	Diuretic, gonorrhoea
27		<i>Aristida setacea</i> Retz	Poonchattai pul	SD,EM	SP	Wp	M	E	Astringent, diarrhea, dysentery
28		<i>Cymbopogon citratus</i> (DC.) Stapf	Karppurappul	AY,SD,UN,FL,EM	TP	Wp	M	J, D	Cough, cold, fever, headache, gastric irritations, cholera, poisonous bites, arthritic pain, skin diseases
29		<i>Cynodon dactylon</i> (L.) Pers.	Arugampullu	AY,UN,HP,FL,EM	WP	Wp	M	J, E	Astringent, dysentery, piles, urinogenital troubles, blood pressure, diarrhea
30		<i>Dactyloctenium aegyptium</i> (L.) Willd.	Kavarapul	AY,SD,FL,EM	EAH	S	M	Po	Kidney stones
31		<i>Echinochloa colona</i> (L.) Link	Karumpul	EM	EAH	R	M	Pa	Burning pain on skin
32		<i>Heteropogon contortus</i> (L.) P.Beauv. ex Roem.& Schult	Osipul, Panipul	FL,EM	SP	R	M	J	Stimulant, diuretic
33		<i>Oryza sativa</i> L.	Nellu	SD,UN,FL,EM	EAH	St	M, Fo	J	Gall bladder stone, urinary disorder
	PROBABLE SISTER OF EUDICOTS								
	Ceratophyllales	Ceratophyllaceae							
34		<i>Ceratophyllum demersum</i> L.	Velampasi	AY,EM	SSH	L	M	J	Vomiting, cooling agent

EUDICOTS									
	Ranunculales	Papaveraceae							
35		<i>Argemone mexicana</i> L.	Kudiyotti, Brama thandu	AY,SD,UN,HP,E M	WP	La,S	M	J, Pa	Scabies, ophthalmia, scorpion sting, ulcers, piles, wound healing, scabies
	Proteales	Nelumbonaceae							
36		<i>Nelumbo nucifera</i> Gaertn.	Chenthaamara i	AY,SD,UN,FL,E M	FSA H	Rh, Fl, Fr, L	M, Fo	Pa, FP	Diarrhea, blood dysentery, piles, scabies, headache, cardiac, liver ailments, foot crack
ROSIDS									
	Zygophyllales	Zygophyllaceae							
37		<i>Tribulus terrestris</i> L.	Nerunji, Serunerinji	AY,SD,UN,FL,E M	WP	Wp	M	D	Heart diseases, respiratory problems, kidney stones, eczema, diuretic
	Fabales	Fabaceae							
38		<i>Aeschynomene indica</i> L.	Chatai, Kirai, Netti	SD,FL,EM	EAH	Wp	M, Cr	E	Skin diseases
39		<i>Alysicarpus vaginalis</i> (L.) DC	Namapoondur	FL,EM	WP	L, St	M	J	Pulmonary troubles
40		<i>Crotalaria verrucosa</i> L.	Cankuniti, Salangaichedi	AY,SD,FL,EM	SP	Wp	M	Pa, E	Skin infections, vomiting, fever, dysentery
41		<i>Desmodium triflorum</i> (L.) DC	Sirupullati	AY,SD,FL,EM	WP	Wp	M	J	Asthma, stomachache, piles, cold, cough, diarrhea, dysentery
42		<i>Indigofera linnaei</i> Ali	Sheppunerunji	AY,SD,EM	SP	Wp	M	E	Diuretic, venereal diseases
43		<i>I. trita</i> L.f.	Punulmurunkai	SD,EM	TP	S	M	Po	Nutritive tonic
44		<i>Mimosa pudica</i> L.	Thottaccuring i	EM	WP	R, L, St	M	Pa, D, J	Hemorrhoides, fever, cuts, wounds, cooling, diuretic, constipating, piles, fistula, scorpion sting
45		<i>Neptunia oleracea</i> Lour.	Sundaikkirai	AY,SD,EM	FFH	Sh, L, St	M	J	Intestinal infections,

									earache, astringent
46		<i>Tephrosia purpurea</i> (L.) Pers.	Kolinjii	AY,SD,UN,FL,EM	SP	Wp	M	E, D	Stomach pain, fish poison, eczema, diarrhea, skin diseases, elephantiasis
47		<i>T.villosa</i> (L.) Pers.		AY,EM	TP	Wp	M	D	Skin diseases
		Polygalaceae							
48		<i>Polygala arvensis</i> Willd.	Milakunankai	SD,FL,EM	EAH	L	M	E, J	Skin diseases, asthma, catarrhal affection, chronic bronchitis
49		<i>P. javana</i> DC.	Periyankai, Selagachedi	EM	EAH	Wp	M	E	Snake bite, skin diseases
	Oxalidales	Oxalidaceae							
50		<i>Biophytum sensitivum</i> (L.) DC.	Tintanali	AY,SD,FL,EM	TP	Wp	M	D, Po	Diarrhea, ulcer, cough, asthma, chest congestion, inflammations, diabetics, poisonous snake bite, diuretic, wounds,
	Malpighiales	Violaceae							
51		<i>Hybanthus enneaspermus</i> (L.) F.Muell.	Orithal thamari	SD,FL,EM	WP	Wp	M	Pa, Po	Erecticle dysfunction, urinary troubles, bowel complaints, leucorrhoea
		Euphorbiaceae							
52		<i>Acalypha indica</i> L.	Kuppai meni	AY,SD,HP,FL,EM	SP	Wp	M, Fo	Pa, D, J	Asthma, bronchitis, cold, cough, skin infections, chest pain, rheumatism
53		<i>Chrozophora rottleri</i> (Geiseler) A.Juss.ex.Spreng	Purapirakkai	AY,EM	TP	Wp	M	FP	Emetic
54		<i>Croton bonplandianus</i> Baill.	Reilpoondu	FL,EM	SP	L	M	E	Constipation, arthritis
55		<i>Euphorbia hirta</i> L.	Amman patchai-arisi	AY,SD,UN,FL,EM	WP	Wp	M	D, Pa, J	Asthma, cough, bowel complaints,

									snakebite, diarrhea, dysentery, skin diseases
56		<i>E. thymifolia</i> L.	China amman pacharisi	AY,UN,FL,EM	EAH	Wp	M	E	Ringworm, wounds, asthma, skin diseases
57		<i>Micrococca mercurialis</i> (L.) Benth.	Kunukuth thukki	AY,SD,FL,EM	TP	L	M	J	Fever, headache, filariasis of eyes
58		<i>Tragia involucrata</i> L.	Sendhatti	AY,SD,FL,EM	TP	L	M	Pa	Cuts, wounds
		Phyllanthaceae							
59		<i>Phyllanthus maderaspatensis</i> L.	Nila nelli, Mela-nelli	AY,SD,UN,EM	SP	Wp	M	Pa	Menstrual problems, skin eruptions
60		<i>P. niruri</i> L.	Kizhay nelli	AY,SD,FL,EM	WP	Wp	M	J, D	Antiviral, antimalarial, antimicrobial, jaundice, dysentery
	Myrtales	Lythraceae							
61		<i>Ammannia baccifera</i> L.	Neermael neruppu, Kalluruvi	AY,SD,EM	EAH	Wp	M	Pa, J	Swellings, dyspepsia, rheumatism, fever, scabies, ringworm, skin itching, typhoid
62		<i>Trapa natans</i> L.	Panni monthan kelangu	AY,SD,UN,FL,EM	FSAH	Fr, L, P, S	M, Fo	FP	Bone fracture, constitution disorders, conjunctivitis, diarrhea, dyspepsia, blood circulation
		Onagraceae							
63		<i>Ludwigia adscendens</i> (L.) H.Hara.	Nir-charambu	FL,EM	FSAH	Wp	M, O	Pa	Skin diseases, ulcers
64		<i>L. octavalis</i> (Jacq.) P.H.Raven	Kattukkirampu	AY,FL,EM	FLAH	L	M	J	Expel worms, dysentery, fever
65		<i>L. perennis</i> L.	Musalkathilai	SD,FL,EM	EAH	L	M	E	Fever, cuts, wounds, sores
	Malvales	Malvaceae							
66		<i>Corchorus aestuans</i> L.	Peratti, Kattuttuti	AY,EM	EAH	L	M	J	Leprosy, itching
67		<i>Melochia corchorifolia</i> L.	Punnakkukkirai	AY,SD,FL,EM	WP	L	M	J	Laxative
68		<i>Pavonia odorata</i> Willd.	Ananthavaratti	AY,SD,UN,FL,EM	TP	L, R, St	M	Pa	Rheumatism, dysentery, intestinal haemorrhage, febrifuge

69		<i>Sida acuta</i> Burm.f.	Aruva- mookukkerai	AY,SD,FL,EM	SP	R, L	M	D, J, Pa	Astringent, diaphoretic, antipyretic, chronic bowel complaints, diuretic, intestinal worms, rhematic, demulcent gonorrhoea, boils, anthelimi ntic, burn wounds, asthma, fever
70		<i>S. cordata</i> (Burm.f.) Borss.Waalk.	Kurunthotti	AY,SD,FL,EM	SP	L	M	J, Po	Cuts and wounds, diarrhea, bruises
71		<i>Waltheria</i> <i>indica</i> L.	Shembudu	EM	EAH	Wp	M	D	Cough, fever, skin diseases, purgative.
	Brassicales	Cleomaceae							
72		<i>Cleome</i> <i>gynandra</i> L.	Taivelai, Nalvelai	AY,SD,FL,EM	WP	L, S	M	J	Earache, snakebite, scorpion sting, headache, neuralgia
73		<i>C. viscosa</i> L.	Naikkaduku	AY,SD,UN,FL,E M	WP	L, S	M	J, Pa, Po, E	Earache, skin diseases, inflammatio ns, carminative, arthritis, loss of appetite, constipation, diarrhea
		Brassicaceae							
74		<i>Brassica</i> <i>juncea</i> (L.) Czern.	Kadugu	AY,SD,UN,FL,E M	WP	S	M, Fo	O	Body massage, culinary preparations
	SUPERASTER IDS								
	Caryophyllales	Polygonaceae							
75		<i>Persicaria</i> <i>barbata</i> (L.) H.Hara	Niralari	SD,UN,FL,EM	EAH	L, R	M	J	Ulcers, cooling agent, Conjunctive s
76		<i>P. glabra</i> (Willd.) M.Gomez.	Attalaree	SD,UN,FL,EM	WP	Wp	M	Pa	Cuts, wounds, fever, coclic pain
77		<i>Polygonum</i> <i>plebeium</i> R.Br.	Kangani chedi	EM	EAH	R, L	M	Pa	Pneumonia, bowel complaints, injuries
		Amaranthacea e							

78		<i>Achyranthes aspera</i> L.	Nayuruvi	AY,SD,UN,HP,FL,EM	EAH	Wp	M	D, Pa, J, E	Blood bleeding, snake bite, scorpion sting, insect bites, cold, cough, fever
79		<i>Aerva lanata</i> (L.) Juss	Ciru-pulai, ulinai	SD,FL,EM	SP	Wp	M	D, J	Kidney stone, diarrhea, haemorrhage, diuretic, inflammation, diabetes
80		<i>Allmania nodiflora</i> (L.) R.Br. ex Wight	Kiraikkummati	SD,EM	TP	Fr, L	M	J	Constipation, dysentery, febrifuge
81		<i>Alternanthera philoxeroides</i> (Mart.)Griseb.	Vellamkanni	FL,EM	EAH	Sh, L	M, Fo	Pa, FP	Cough, intestinal worms
82		<i>A. pungens</i> Kunth	Ottara mul	FL,EM	WP	Wp	M	J, FP	Night blindness, antiseptic
83		<i>A. sessilis</i> (L.) R.Br. ex DC.	Ponnankanni keerai	AY,SD,FL,EM	WP	Sh, L	M	Pa, J	Piles, snake bite, headache, stimulate lactation for mothers, leucorrhoea
84		<i>Amaranthus spinosus</i> L.	Mullu keerai	AY,SD,FL,EM	WP	L, R	M	D, Pa, J	Snake bite, sun stroke, digestion, diuretic
85		<i>A. viridis</i> L.	Kuppaikerai	AY,SD,FL,EM	WP	Wp	M, Fo	Pa	Scorpion sting, toothache, dropsy
86		<i>Celosia argentea</i> L.	Kozhi poo, Pannai- keerai	AY,SD,FL,EM	WP	Wp	M	Pa	Antiprotozoal, spasmolytic, blood diseases, mouth sores
87		<i>Digera muricata</i> (L.) Mart.	Thoyya-k-kirai	AY,SD,EM	WP	Fl, L, S	M	D	Urinary troubles, laxative, stomach ache, ulcer, fever.
88		<i>Gomphrena celosioides</i> Mart.	Neera-vadamalli	FL,EM	EAH	Wp	M	D	Leucorrhea
89		<i>G. globosa</i> L.	Vadamaalli	SD,FL,EM	TP	R	M, O	J	Cough
		Nyctaginaceae							
90		<i>Boerhavia diffusa</i> L.	Mukkaratti keerai	AY,SD,UN,HP,EM	SP	Wp	M	E	Diabetics, rheumatism, leucoderma, jaundice, eye problems
91		<i>B. erecta</i> L.	Seemai mukkaratti	AY,EM	SP	L	M	E	Asthma
92		<i>Mirabilis jalapa</i> L.	Anthi mandarai	FL,EM	TP	L, Fl	M	J, D, Po	Wounds, burns, inflammations

		Molluginaceae							
93		<i>Glinus lotoides</i> L.	Cheruppadai, Ceruppati	AY,SD,FL,EM	WP	St	M	FP	Abdominal disorders
94		<i>G. oppositifolius</i> (L.) Aug DC	Thura poondu	AY,SD,FL,EM	WP	Wp	M	Pa	Skin diseases, scabies, itches
95		<i>Mollugo nudicaulis</i> Lam.	Kuttutiray, Turapoondu	FL,EM	WP	Wp	M	E	Antisepetic, diaphoretic, antifungal, wounds, cure boils
96		<i>M. pentaphylla</i> L.	Sirupaaraimalli	FL,EM	WP	Wp	M	Pa	Giddiness, antiseptic and sores
		Portulacaceae							
97		<i>Portulaca oleracea</i> L.	Pasalai keerai	AY,SD,FL,EM	WP	L	M, Fo	J	Earache, liver, kidney stones
	ASTERIDS								
	Gentianales	Rubiaceae							
98		<i>Oldenlandia corymbosa</i> L.	Kattucayaver	AY,SD,FL,EM	EAH	Wp	M	E, Pa	Fever, jaundice, liver troubles, skin diseases
99		<i>O. herbacea</i> (L.) Roxb.	Chaaya ver	AY,SD,HP,FL,EM	TP	L	M	Pa	expectorant
100		<i>Spermacoce hispida</i> L.	Niutti-choorie, Nattai-churi	AY,SD,FL,EM	WP	Wp	M	J	Asthma, bronchitis, cough, common cold, cuts, wounds
		Gentianaceae							
101		<i>Enicostema axillare</i> (Poir.ex Lam.) A.Raynal.	Veearugu	SD,FL,EM	EAH	Wp	M	E	Digestive, carminative, stoamchache, anti-inflammatory
	Boraginales	Boraginaceae							
102		<i>Coldenia procumbens</i> L.	Cheruppadai	AY,FL,EM	WP	Wp	M	Pa, FP	Rheumatism, epilepsy, swellings
103		<i>Heliotropium indicum</i> L.	TheI-kodukku	AY,SD,UN,FL,EM	WP	Wp	M	J, Pa, D	Ulcers, anaemia, scorpion sting, cataract, redness, conjunctives, cuts, wounds
104		<i>Trichodesma indicum</i> (L.) Lehm.	Kavizhumbai	AY,SD,FL,EM	TP	Wp	M	D	Carminative, anti-inflammatory, skin diseases
	Solanales	Convolvulaceae							
105		<i>Evolvulus alsinoides</i> (L.) L.	Vishnukirandi	AY,SD,UN,EM	WP	Wp	M	D	Dysentery, indigestion, asthma, hair growth,

									amentia, forgetfulness and diarrhoea, cuts, wounds, bleeding
106		<i>E. nummularius</i> (L.) L.	Ellikaathu ellai	AY, EM	WP	Wp	M	D	Fever, cold, body heat, hair oil
107		<i>Ipomoea aquatica</i> Forssk.	Sarkaraivalli	AY,SD,FL,EM	FSAH	L	M	J	Laxative, pileous problems, jaundice, eye diseases, blood purifier, gonorrhoea
108		<i>Merremia tridentata</i> (L.) Hallier f.	Tirippanpul	AY,SD,FL,EM	WP	Wp	M	E	Rhematism, piles, urinary disorders, skin eruption, astringent, laxative
		Solanaceae							
109		<i>Physalis angulata</i> L.	Thakkali	AY,SD,FL,EM	WP	Wp	M	J, D	Earache, constipation, ulcers, cough
110		<i>Solanum surattense</i> Burm.f.	Kandan kattiri	AY,SD,UN,HP,FL,EM	TP	Wp	M	D, Pa	Cough, diarrhea, skin diseases
111		<i>Capsicum annum</i> L.	Meelakai	AY,SD,UN,HP,FL,EM	TP	Fr	M, Fo	Po	Cuts, wounds
	Lamiales	Plantaginaceae							
112		<i>Bacopa monnieri</i> (L.) Wettst.	Nir-p-pirami, Priamiyam	AY,SD,UN,HP,FL,EM	WP	Wp	M	J, Pa	Epilepsy, asthma, ulcers, tumours, enlarged spleen, indigestion, inflammations, leprosy, anaemia, improve memory, astringent, antiseptic
113		<i>Limnophila heterophylla</i> (Roxb.) Benth.	Manganari	EM	SSH	Tw	M	Pa	Hair nurishment
114		<i>L. indica</i> (L.) Druce.		AY,FL,EM	EAH	Wp	M	J	Dysentery, antiseptic, wounds
115		<i>Scoparia dulcis</i> L.	Sarakotthini	FL, EM	EAH	Wp	M	D, Pa, E	Antipyretic, diuretic, antifungal, anti-inflammatory, antibacterial, diabetics,

									fever, dysentery, kidney stone, cough, bronchitis, toothache, gonorrhoea
		Linderniaceae							
116		<i>Lindernia anagallis</i> (Burm.f.) Pennell	Annichai	EM	WP	Wp	M	Pa	Gonorrhoea
117		<i>L. crustacea</i> (L.) F.Muell		FL,EM	EAH	Wp	M	Pa	Ringworm, boils, bile
		Pedaliaceae							
118		<i>Pedaliium murex</i> L.	Yanai nerunjil	FL, EM	SP	Wp	M	E	Ulcer, kidney stone, gonorrhoea, carminative, anti-inflammatory, scorpion bite, rheumatic pain
119		<i>Sesamum indicum</i> L.	Yellu	AY,SD,UN,FL,EM	SP	L, Fr, S	M, Fo	E, Po	Body strength, dysentery
		Acanthaceae							
120		<i>Andrographis echinoides</i> (L.) Nees	Gopuram tangi	SD,FL,EM	SP	Wp	M	FP	Fever, antibacterial, antifungal activity, tooth pain
121		<i>A. paniculata</i> (Burm.f.) Nees.	Nilavembu	AY,SD,UN,HP,FL,EM	SP	Wp	M	D, E, J	Fever, dysentery, diabetes, itches, piles, jaundice, snake bites, cough
122		<i>Asystasia gangetica</i> (L.) T.Anderson	Miti-kirai	SD,EM	SP	L	M	E	Fever, skin diseases, antibacterial activity
123		<i>Blepharis maderaspatensis</i> (L.) B.Heyne ex Roth		FL,EM	TP	L	M	Pa, J	Cuts, wounds
124		<i>Hygrophila auriculata</i> (Schumach.) Heine	Nir-mulli	SD,UN,HP,FL,EM	EAH	R, L, S	M	D, Pa, Po, J	Gonorrhoea, urinary disorders, anaemia, spermatorrhoea
125		<i>Justicia tranquebariensis</i> L f.	Sivanarvempu, Punnaku poodu	AY,SD,FL,EM	WP	L	M	J	Cooling agent, small pox
		Lentibulariaceae							
126		<i>Utricularia aurea</i> Lour.		EM	SSH	Wp	M	J	Prevention the mosquito disease
		Verbenaceae							

127		<i>Phyla nodiflora</i> (L.) Greene	Podutalei	AY,SD,UN,EM	WP	L, St, Fr	M, Co	E, D, Pa	Anti dandruff, indigestion
		Lamiaceae							
128		<i>Anisomeles malabarica</i> (L.) R.Br.ex Sims	Perumthumbai	SD,FL,EM	WP	Wp	M	J, E	Antifungal, antimicrobial, antinocipetive, antipyretic, cytotoxic, headache, intestinal worms, swellings, skin allergy
129		<i>Leucas aspera</i> (Willd.) Link	Thumbai	AY,SD,HP,FL,EM	WP	L	M	J	Cough
130		<i>L. biflora</i> (Vahl) R.Br. ex Sm.	Venthumbai	EM	SP	Wp	M	J	Fever, Acne, cardio tonic, dysentery, stomach upset
131		<i>Ocimum americanum</i> L.	Naai thulasi	AY,SD,HP,FL,EM	SP	L	M	Po, Pa, D	Stomach ache, fever, cough, cold
132		<i>O. tenuiflorum</i> L.	Nallathulasi	AY,SD,UN,FL,EM	SP	L	M	J	Kidney ailments, kidney stones
133		<i>Orthosiphon aristatus</i> (Blume) Miq.	Poona meesai	FL,EM	SP	L	M	J	Teeth formation, fever, cough, cold
	Asterales	Menyanthaceae							
134		<i>Nymphoides hydrophylla</i> (Lour.) Kuntze	Akacavalli	AY,SD,EM	FSAH	L, S	M	J, Po	Eye diseases, scorpion sting, snake bite, anthelintic
135		<i>N. indica</i> (L.) Kuntze	Chinnambal	FL,EM	FSAH	Wp	M	Pa, D	Skin rashes, headaches, jaundice, lacrimation, headache, scabies, swellings
		Asteraceae							
136		<i>Acanthospermum hispidum</i> DC.	Kambumul	EM	EAH	L, FI	M	J	Toothache, skin diseases, diuretic, cough, cold, jaundice, sore throat
137		<i>Acmella paniculata</i> (Wall.ex.DC.) R.K.Jansen	Palluedanna chedi	AY,SD,FL,EM	TP	Wp	M	Pa, J	Diarrhea, dysentery, gastro intestinal ailments, purgative, skin diseases, carminative,

									cough, asthma, bronchitis, leprosy, ringworm
138		<i>Ageratum conyzoides</i> (L.) L.	Pumppillu, Appakkoti	EM	TP	Wp	M	D, J, Pa	Asthma, anti-inflammatory, cold, cough
139		<i>Artemisia japonica</i> Thunb.	Makkippu	FL,EM	TP	Fl	M	J	Skin diseases
140		<i>Bidens pilosa</i> L.		AY,SD,UN,FL,EM	WP	Wp	M	Po	Hair growth, antiseptic, elephantiasis, blackening hair, dandruff
141		<i>Eclipta prostrata</i> (L.) L.	Karisilanganni	SD,EM	TP	Wp	M	J, Pa, Po	Pimples, scorpion bite
142		<i>Emilia sonchifolia</i> (L.) DC. ex. DC.	Muyalchevi	FL,EM	WP	Wp	M	J, D	Dysentery
143		<i>Kleinia grandiflora</i> (Wallich ex DC.) N.Rani		AY,SD,UN,EM	WP	Wp	M	Pa, J	Skin diseases, anthelmintic, toothache, diuretic, laxative
144		<i>Parthenium hysterophorus</i> L.	Vesapoodu	FL,EM	WP	L	M	D	Diarrhea
145		<i>Sphaeranthus indicus</i> L.	Visnukkaranti, Kottaikarantai	AY,SD,UN,FL,EM	WP	Wp	M	Pa, D	Cold, cough, rheumatism, skin diseases, diarrhea, urinary disorder
146		<i>Synedrella nodiflora</i> (L.) Gaertn.	Mudiyendrapacha	AY,SD,FL,EM	WP	L	M	J	Hair blackening,
147		<i>Tridax procumbens</i> (L.) L.	Muriya, patchillai, Rayil poondu	AY,SD,FL,EM	WP	S	M	J, Pa	Veneral diseases
148		<i>Vernonia cinerea</i> (L.) Lees	Kucharipachilai, Neichity	FL,EM	WP	St, L	M	D, J	Dermatological affections
149		<i>Wedelia chinensis</i> (Osbeck) Merr.	Manjalkarisalam kanni	AY,SD,FL,EM	WP	L	M	J	Cuts wounds, headache, snake bites
150		<i>Xanthium strumarium</i> L.	Marul-umattai	AY,SD,FL,EM	WP	Wp	M, Fo	O, Pa	Conjunctivitis, ulcer, allergy, sore ears, wounds, night blindness, bowel complaints

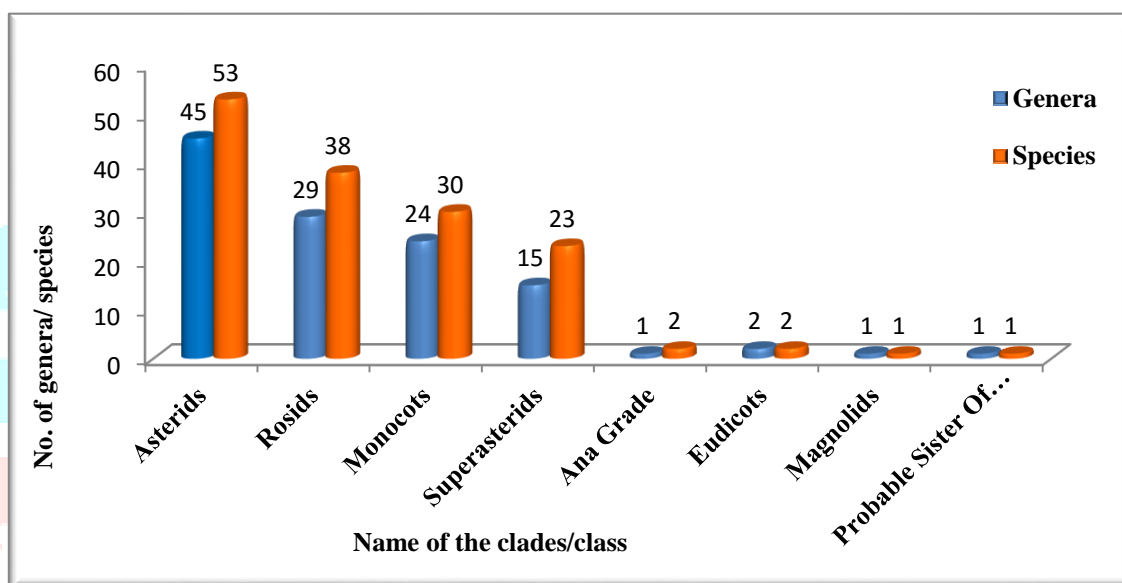
Traditional medicines: AY-Ayurveda; EM- Ethnomedicine; FL- Folklore; HP- Homeopathy; SD- Siddha; UN-Unani; **Habitat:** EAH-Emergent amphibious hydrophytes, FLAH- Floating leaved anchored hydrophytes, FSAH- Floating submerged anchored hydrophytes, FFH-

Free floating hydrophytes, SP- Shore plants, SAH- Submerged anchored hydrophytes, SSH- Submerged suspended hydrophytes, WP- Wetland plants, TP- Terrestrial plants; **Plant parts used:** Fl- Flowers, Fr- Fruits, L- Leaves, La- Latex, P- Petiole, Rh- Rhizome, R- Roots, S- Seeds, St- Stem, Tu- Tubers, Tw- Twigs, WP- Whole plant; **Indigenous Uses:** Co- Cosmetics, Cr- Craft, M- Medicine, Ma- Manure, Fo- Food, F- Fodder, O- Ornamental, T- Timber; **Mode of Preparation:** D- Decoction, E- Extraction, J- Juice, Fp- Fresh Plant, O- Oil, Pa- Paste, Po- Powder.

Table 2 Details of medicinal herbs collected from the of present study area

Class	Sub class	No. of family	No. of genera	No. of species
Dicots	Polypetalae	15	28	38
	Gamopetalae	14	45	53
	Monochlamydeae	7	21	29
Total		36	94	120
Monocots	-	10	24	30

Figure 2 Distribution of species in clades / grades as per APG IV classification



The present study is attempted to document the medicinal herbs of Agastheeswaram Taluk in Kanyakumari District. Usually medicinal plants is rich in the various parts of India, about 42 plant species were reported from traditional remedies used by the inhabitants of Keezhakrishnanputhoor, Kanyakumari District (Jenisha and Jeeva, 2014) and also 33 species were reported from Indigenous people of Tamilnadu (Ayyanar, 2013), whereas in Traditional herbal medicines of the coastal diversity in Tuticorin district (Muthukumar and Samuel, 2010).

Order Caryophyllales (23 species), Lamiales (22 species each), Asterales (17 species), Fabales (12 species), Malpighiales (10 species) account for about 56 % of the species in Agastheeswaram Taluk (Fig. 3). The most diverse medicinal herb families in the Agastheeswaram taluk include Asteraceae (15 species), Amaranthaceae (12 species), Fabaceae (10 species), Poaceae (8 species), Euphorbiaceae (7 species), Acanthaceae, Cyperaceae, Lamiaceae and Malvaceae (6 species each), Commelinaceae (5 species each), Convolvulaceae, Molluginaceae and Plantaginaceae (4 species each), whereas seven families represented by three species each, ten families represented by two species, Sixteen families represented by a single species (Table 3 and Fig. 4).

Figure 3 Distribution of species in dominant order as per APG IV classification

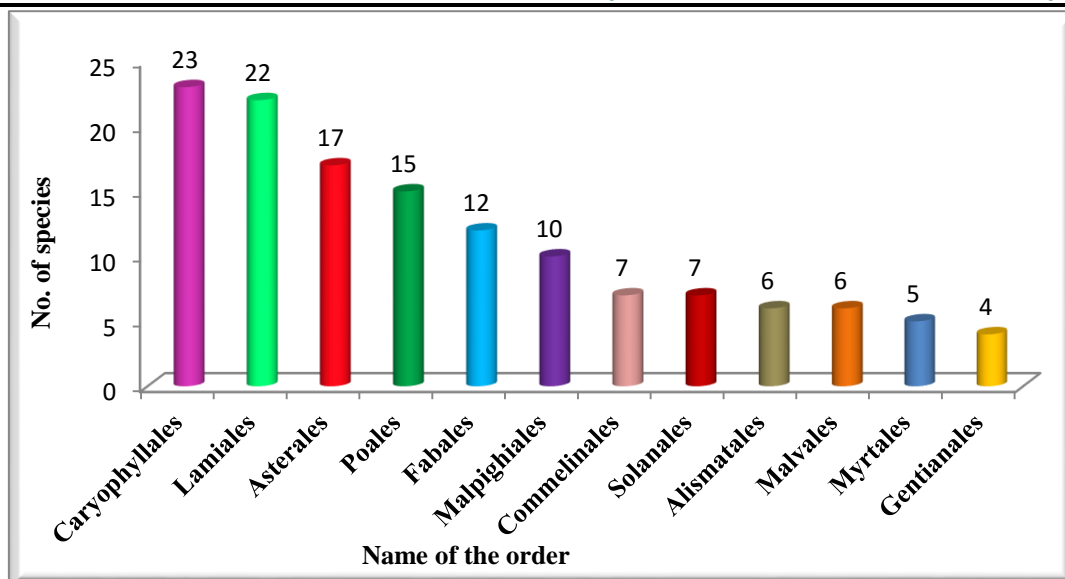
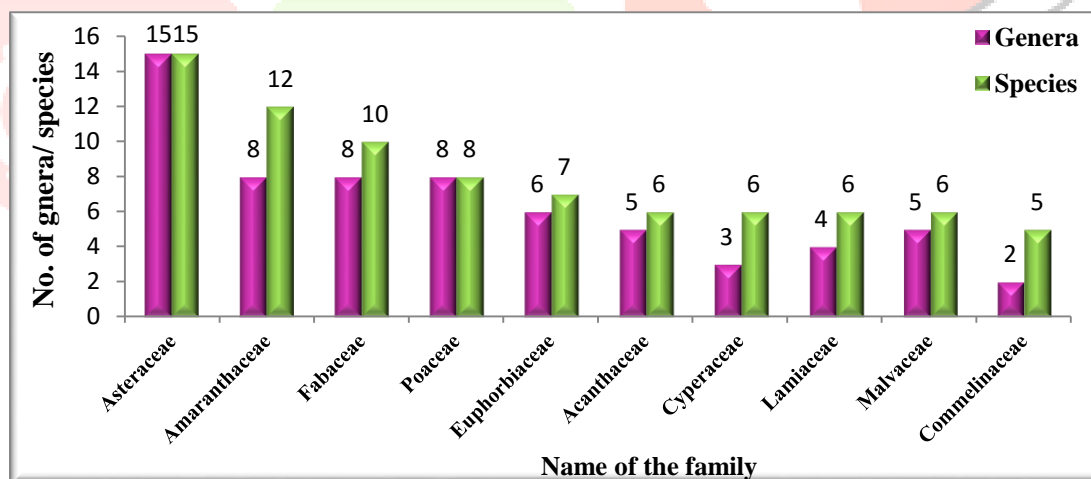


Table 3 List of families with number of genera and species

Family Rank	Family	Genera	Species
1	Asteraceae	15	15
2	Amaranthaceae	8	12
3	Fabaceae	8	10
4	Poaceae	8	8
5	Euphorbiaceae	6	7
6	Acanthaceae	5	6
7	Cyperaceae	3	6
8	Lamiaceae	4	6
9	Malvaceae	5	6
10	Commelinaceae	2	5
11	Convolvulaceae	3	4
12	Molluginaceae	2	4
13	Plantaginaceae	3	4
14	Araceae	3	3
15	Boraginaceae	3	3
16	Nyctaginaceae	2	3
17	Onagraceae	1	3
18	Polygonaceae	2	3
19	Rubiaceae	2	3
20	Solanaceae	3	3
21	Cleomaceae	1	2
22	Hydrocharitaceae	2	2
23	Linderniaceae	1	2
24	Lythraceae	2	2
25	Menyanthaceae	1	2
26	Nymphaeaceae	1	2
27	Pedaliaceae	2	2
28	Phyllanthaceae	1	2
29	Polygalaceae	1	2
30	Pontederiaceae	2	2
31	Aponogetonaceae	1	1
32	Brassicaceae	1	1

33	Cannaceae	1	1
34	Ceratophyllaceae	1	1
35	Gentianaceae	1	1
36	Lentibulariaceae	1	1
37	Nelumbonaceae	1	1
38	Oxalidaceae	1	1
39	Papaveraceae	1	1
40	Piperaceae	1	1
41	Portulacaceae	1	1
42	Typhaceae	1	1
43	Verbenaceae	1	1
44	Violaceae	1	1
45	Zingiberaceae	1	1
46	Zygophyllaceae	1	1
	Total	118	150

Figure 4 Dominant medicinal plant families in select areas of Agasheeswaram Taluk



Further the medicinal classified in morphological groups viz., the dominant one was wetland plants (60 species) followed by emergent amphibious hydrophytes (30 species), border line plants around the wetlands or shore plants (22 species), terrestrial plants (20 species), floating submerged anchored hydrophytes (6 species), free floating hydrophytes (4 species), floating leaved anchored hydrophytes and submerged suspended hydrophytes (2 species each) and submerged anchored hydrophytes (2 species) (Fig. 5). In the study, ethnobotanically used herbs were also identified and are grouped in to food (14 species) followed by ornamental (4 species), fodder (3 species), craft (2 species), cosmetics and manure (1 species each) (Fig. 6).

Figure 5 Habitat wise distributions of medicinal herbs in the present study area

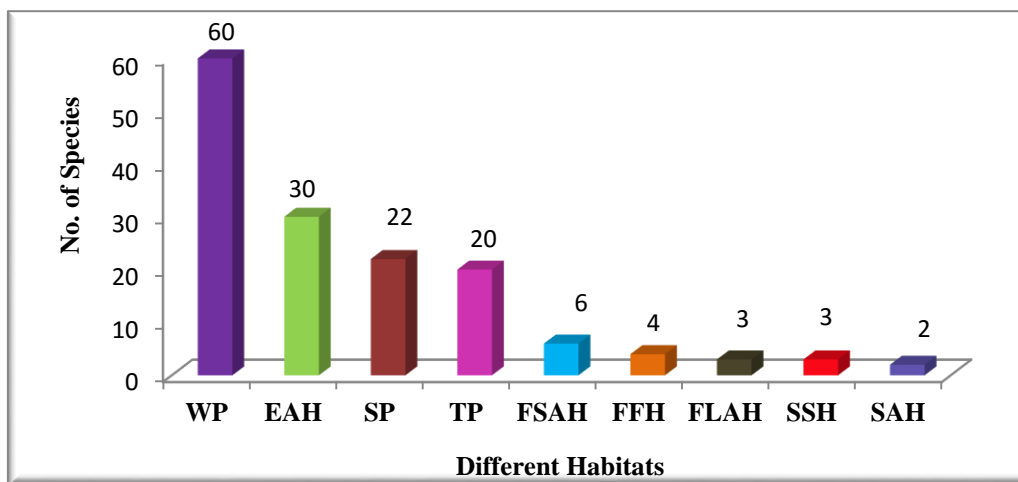
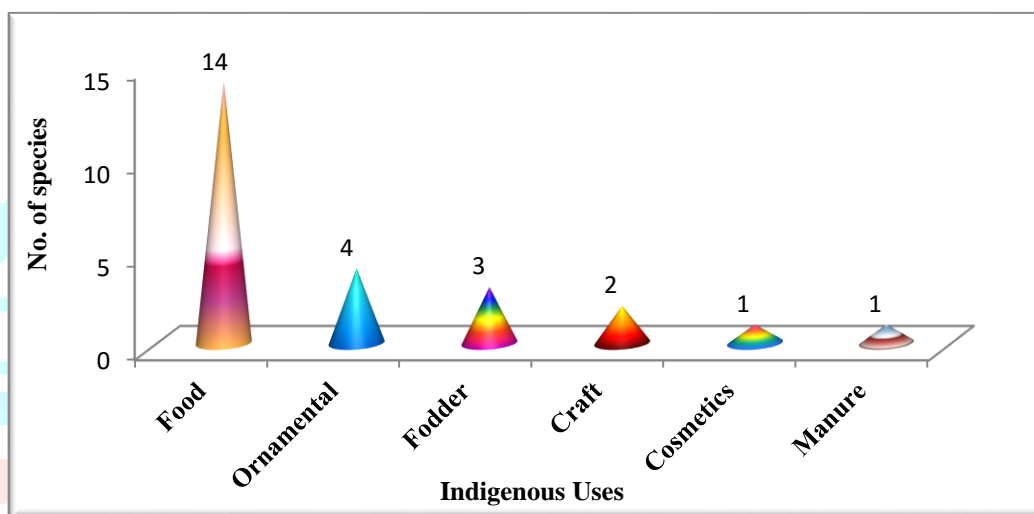


Figure 6 Economically important medicinal herbs collected from the present study area



All the medicinal herbs collected from the present study area are used in Ethnomedicinal preparations by local people. Out of 150 medicinal herbs, 108 medicinal plant species are used in Folk medicines. 98 species are used in Siddha medicines, 86 species are used in Ayurveda medicines, 38 species are used in Unani medicines and 13 species are used in Homeopathy medicines (Fig. 7). Among these 150 medicinal herbs, different plant parts were used indigenously. Maximum plant parts are reported in leaves (54 species) followed by whole plant (75 species), roots (19 species), seeds (12 species), fruits and stem (8 species each), flowers (7 species), rhizome and shoots (3 species each), latex, petiole, twigs and tubers (1 species each) (Fig. 8).

Figure 7 Number of medicinal herbs used in different traditional medicines

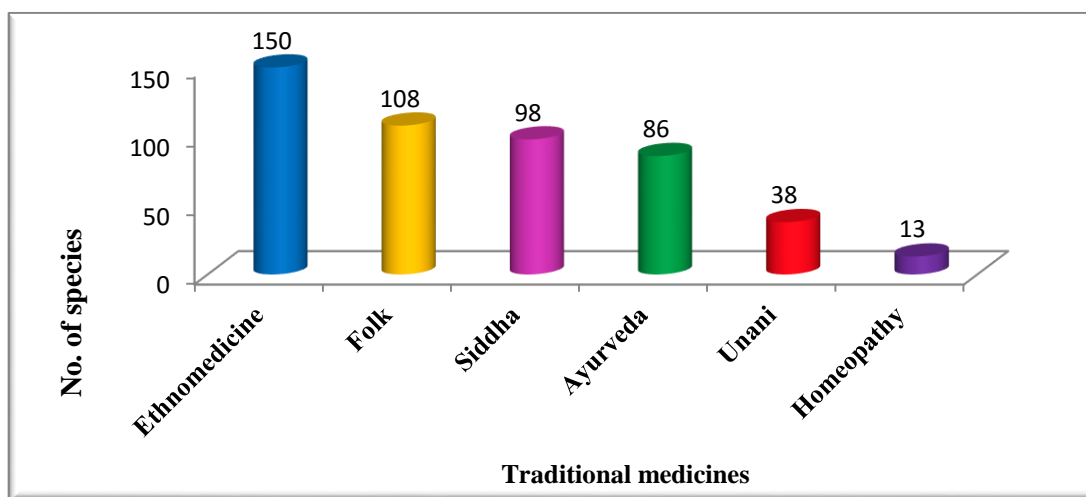
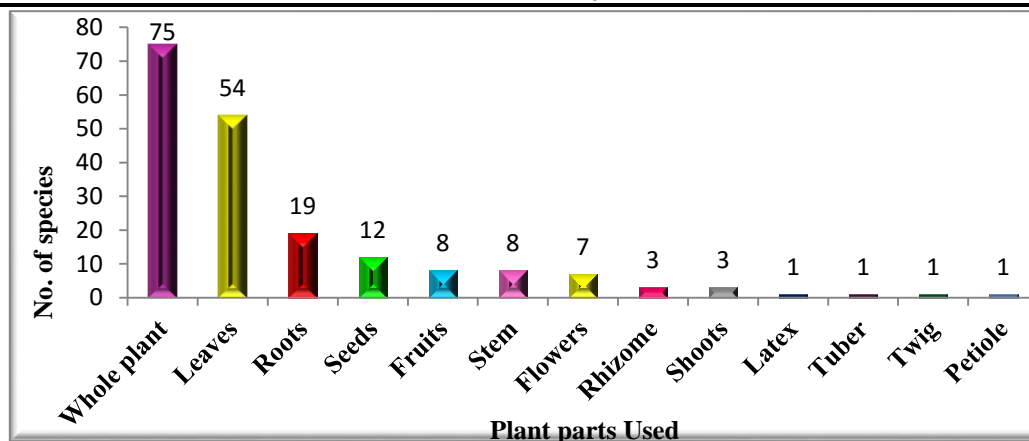
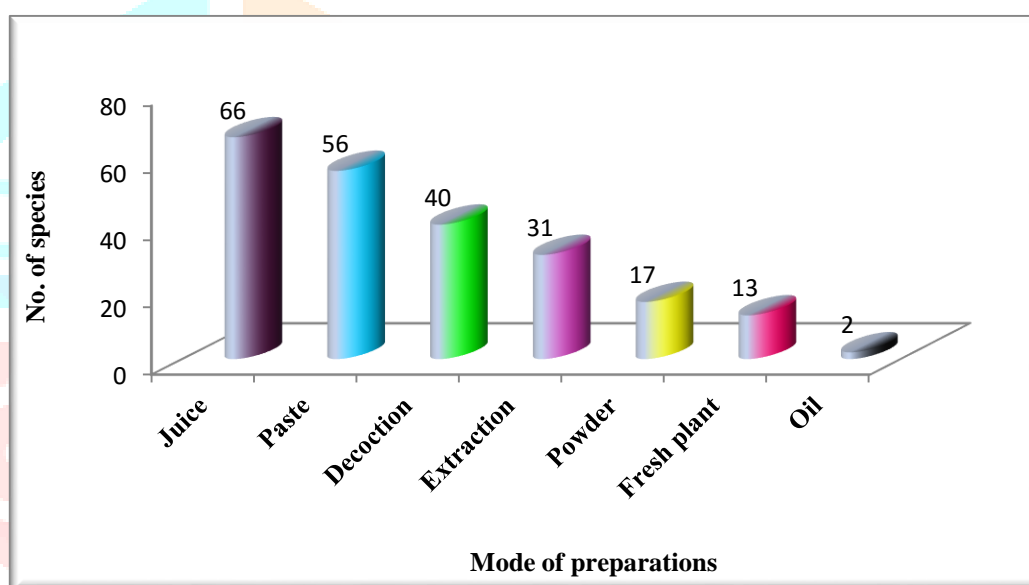


Figure 8 Morphological useful parts of medicinal herbs used for traditional medicinal preparations



Medicines are prepared in the form of juice from 66 medicinal herbs followed by paste from 56 medicinal herbs, decoction from 40 medicinal herbs, extraction from 31 medicinal herbs, powder from 17 medicinal herbs, fresh plant from 13 medicinal herbs and oil from 2 medicinal herbs (Fig. 9). Most of the reported preparations are drawn from a single plant; mixtures are used rarely. The fresh plant parts are used for the preparation of medicine. When fresh plant parts are unavailable, dried parts are also used. Generally, the people of the study area still have a strong belief in the efficacy and success of herbal medicine. The results of the present study provide evidence that medicinal plants continue to play an important role in the healthcare system of this local people.

Figure 9 Analysis of mode of preparation and utilization of plant parts



Based on the information obtained from the indigenous people and the reviews in the present study area all the ailments were grouped into 15 categories. Maximum number medicinal herbs used in the Dermatological Infections/ Diseases (DID) (114 species) followed by Gastro-intestinal Ailments (GIA) (97 species), Respiratory systems Diseases (RSD) (65 species), Genito-Urinary Ailments (GUA) (45 species), Fever (FVR) (33 species), Skeleto-Muscular System Disorders (SMSD) (24 species), Poisonous Bites (PB) (20 species), General health (GH) (19 species), and Circulatory system/ Cardio vascular diseases (CSCD) (17 species each), Ear, Nose, Throat problems (ENT) (12 species), Liver problems (LP) (11 species), Dental care (DC) (7 species), Cooling agent (CA) (6 species), Hair Care (HC) (4 species), and Endocrinal disorders (ED) (2 species) (Table - 4). They use herbal medicines not only for simple ailments like cough, cold and fever but are also used to treat diseases like leprosy, leucorrhoea, menorrhoea, vitality, jaundice, liver problems etc.

Table 4 Ailments grouped by different categories in the study area

Sl.No	Ailments categories	Biomedical terms	Tamil terms	No. of plants used	Total no. of plants
1	Gastro-intestinal Ailments (GIA)	Dysentery	vayirrukkatuppu	24	
		Purgative	Pethi	3	
		Mouth sore	Vaai pun	1	
		Ulcer	Kodal pun	12	
		Stomachache	Vayirru vali	2	
		Constipation	Malaccikkal	7	
		Intestinal worms	Kudal pulukkal	1	
		Bowel complaints	Kudal pukarkal	5	

		Bile complaints	Pitta pugarkal	1	97
		Diarrhea	Vayittu pokku	16	
		Dyspepsia	Cerimanaminmai	3	
		Digestability	Cerimanamuttum	7	
		Carminative	Iraippai kudal vali neeki	5	
		Gall bladder	Pittappai	1	
		Appetite	Paciyinmai	1	
		Vomiting	Vanthi	3	
		Emetic	Vanthiyatakki	1	
		Vermicide	Pulu kalai	4	
2	Dermatological Infections/ Diseases (DID)	Cuts	Vettukkal	15	114
		Burns	Tikkayankal	1	
		Inflammations	Veekkankal	4	
		Skin diseases	Tol noykal	31	
		Pimples/ Acne	Parukkal	1	
		Scabies	Ciranku	7	
		Wounds/ Bruises	Kayankal	23	
		Anti- fungal	Puncai etirppan	4	
		Itching eruption	Arippu vetippu	2	
		Scurvy	Sori karapan nooi	1	
		Ringworm	Padartamarai	5	
		Boils	Koppalanganal	6	
		Dropsy	Veekkam	2	
		Tumours	Kattikal	1	
		Eczema	Serangu, Padai	3	
		Diaphoretic	Viyarvaiyakki	2	
		Foot crack	Paatha vedipuu	1	
		Leprosy	Tollunooi	5	
3	Respiratory systems Diseases (RSD)	Asthma	Ellupu nooi	14	65
		Cold	Salli	15	
		Cough	Irumal	28	
		Bronchitis	Moochu kulal alarchi	6	
		Nausea	Kumattal	1	
4	Genito-Urinary Ailments (GUA)	Pneumonia	Nurai eral nooi	1	45
		Abdominal disorders	Vayittu kolaru	1	
		Abortion	Karu sethaivu	1	
		Kidney disorders	Ciruniraka kolaru	7	
		Menstrual problems/Menorrhagia	Matavidai mikaippu	1	
		Lactation	Paal surathal	1	
		Leucorrhoea/gleet	Veali paduthal	1	
		Gonorrhoea	Mega vetai nooi	3	
		Piles/Hemorrhoids	Moola nooi	11	
		Urinary disorders	Ciruniraka kolaru	6	
		Diuretic	Siru neer perukki	13	
5	Fever (FVR)	Fever	Kayccal	28	33
		Typhoid	Nachu kayccal	1	
		Febrifuge	Kayccal thanippan	2	
		Anti-Malaria	Murai kayccal	1	
		Small pox	Periyammai	1	
	Skeleto-Muscular System Disorders (SMSD)	Headache	Thalaivalli	8	24
		Rheumatism	Vatha nooi	6	
		Swellings	Veekam	6	
		Arthritis	Keel vadam/ Mootu veekam	2	
		Bone fracture	Ellumpu murivu	1	
		Sun stroke	Vepathakku nooi	1	
7	Poisonous Bites (PB)	Scorpion sting	Theel koduku	9	20
		Snake bite	Pampu kadi	10	
		Insect bite	Poochi kadi	1	

8	Circulatory system / Cardiovascular diseases (CSCD)	Heart diseases	Ithaya noykal	2	17
		Memory power	Ninaivaka sakthi	1	
		Blood diseases	Iratha noykal	1	
		Amentia	Maradi	1	
		Chest pain	Nencu vali	2	
		Anaemia	Iratta cokai	2	
		Blood bleeding/Haemorrhage	Eratha pooku	5	
		Blood pressure/Hyperactivity	Megai seyappaadu	1	
		Blood circulation	Eratha oodam	1	
		Neuralgia	Narampu vali	1	
9	Endocrinal disorders (ED)	Diabetes	Neeralivu nooi	2	2
10	Dental care (DC)	Toothache	Pal vali	6	7
		Teeth formation	Eril ratham vadithal	1	
11	Hair Care (HC)	Hair growth	Karumai mudi	1	4
		Anti- dandruff	Thalai poduku ethipu	3	
12	Ear, Nose, Throat problems (ENT)	Earache	Kaathu vali	5	12
		Eye infections	Kan nooi	3	
		Night blindness	Malai kan nooi	2	
		Lacrimation	Kanner valithal	1	
		Sore throat	Thondai vali	1	
13	Cooling agent (CA)	Body cooling	Udal kulichii	4	6
		Body heat	Udal vepam	2	
14	Liver problems (LP)	Jaundice	Mancal kamalai	7	11
		Liver disorders	Kalliral kolarukal	4	
15	General health (GH)	Body massage	Udal uruvuthal	1	19
		Antiseptic	Kiurmi nasini	1	
		Antiviral	Nachuir ethiri	1	
		Anti- inflammatory	Ethirpu alarchi	1	
		Astringent	Thovarthal	7	
		Anti bacterial	Packterial ethirpu sakthi	3	
		Anti microbial	Nunuir ethiriou sakthi	1	
		Epilepsy	Valipu nooi	2	
		Elephantiasis	Yanaikal Nooi	2	

The study provides sufficient ground to believe that the traditional medicinal practice using native medicinal plant is alive and well functioning in the study area. The promising ethno-medicinal plants are interesting and provide new medicinal plants for further ethno-pharmacological investigation on them. Such species may be utilized in the formation of new drugs after confirmation of their therapeutic efficacy on modern parameters. Recently revival of interest towards herbal drugs because of their efficacy against different ailments invites immediate attention towards herbal protection and conservation of such valuable medicinal plants; otherwise it will be too late. A few medicinal plants need immediate cultivation so that these could be source of revenue generation amongst the local people of this region.

IV. CONCLUSION

Traditional knowledge of plants in many rural communities is changing because of rapid industrialization, urbanization, socioeconomic and cultural changes. Exploration of medicinal herbs is essential from the view point of documentation of indigenous and traditional knowledge, which consequently helps in formulation of potential raw materials in modern pharmaceutical industry for further availability and for the greater benefit of mankind. It is hoped that the information gathered from the indigenous community will provide further lead in developing new herbal formulation. Such documentation of comprehensive ethnomedicinal knowledge is very valuable and needs to be scaled up so that it could be followed up with phytochemical and pharmacological analyses in order to give scientific ground to the ethnomedicinal knowledge.

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