



Research Article

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Potential Medicinal Plants used in Ayurvedic System of Medicine and their diversity in Southern Western Ghats of Coimbatore District, Tamil Nadu, India

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ABSTRACT

The origin of Ayurveda or the Indian science of life is linked with the origin of Universe and developed from out of the various Vedic hymns describing fundamentals, philosophies about the world and life, diseases and medicines. Around 1000 BC, the knowledge of Ayurveda was comprehensively documented in Charak Samhita and Sushruta Samhita. In the present study 197 plant species are identified which are used in the Ayurvedic system and discussed their utilization and the related areas such as Ayurvedic terminology, curative diseases and diversity status etc. Those plants which are falls in the category of vulnerable, rare and endangered are recommended for germplasm collection and to take up cultivation and propagation activities through modern agronomical techniques. Further the extensive field studies may also help to the discovery of new plant species used in the Ayurveda system of medicine for the betterment of health care needs.

Keywords: Ayurveda, Western Ghats, Diversity, Medicinal Plants

INTRODUCTION

The knowledge of medicinal plants has been accumulated in the course of many centuries based on different medicinal systems such as Ayurveda, Siddha and Unani. In India it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular source of medicinal preparations in the pharmaceutical industries. During the last few decades there has been an increasing interest in the study of medicinal plants and their traditional use in different parts of the world^[1]. In India about 90% of plant materials are collected from wild sources, many of the plants have become rare, threatened, endangered or vulnerable due to the destructive harvesting. The Ethno-botanical survey indicates that about 8,000 species of medicinal plants are used by many tribal communities for traditional medicinal preparation^[2]. About 427 ethnic communities and folk healers use around 8000 species of medicinal plants in different parts of India^[3].

Ayurveda (*Ayu + Veda*) means the science of life. The documentation of Ayurveda is referred to in Vedas (5000 BC). The origin of Ayurveda or the Indian science of life is linked with the origin of Universe and developed from out of the various Vedic hymns describing fundamentals, philosophies about the world and life, diseases and medicines. Around 1000 BC, the knowledge of Ayurveda was comprehensively documented in *Charak Samhita* and *Sushruta Samhita*. According to Ayurveda health is considered a pre-requisite for achieving the goals of life, dharmas, artha and spiritual and social aspects of human beings, each impinging on the others. The philosophy of Ayurveda is based on the theory of *Panchmahabhutas* (five element theory). The combination of these five elements are represented in the form of *Tridosha* eg. *Vata* (Earth + Air), *Pitta* (Fire) and *Kapha* (Water + Earth). These three Doshas are physiologically entities in living beings. These are also known as three humours. The mental spiritual attributes are described as *Satva*, *Rajas* and *Tamas*. The various permutations and combinations of *Satva*, *rajas* and *tamas* constitute human temperament (*Prakrati*) and personality^[4].

The Treatment in Ayurveda has two components i.e. preventive measures and curative measures. Preventive aspect of Ayurveda is called *Svaath-Vritt* and includes personal hygiene, regular daily routine, appropriate social behaviour and *rsaayana sevana*, i.e. use of rejuvenate materials/food and rasayana drugs. The curative treatment consists of three major categories of procedures Aushadhi (Drugs), Anna (Diets), and Vihara (Exercises and general mode of life). The speciality of yurveda is Internal

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Medicine (*Kayachikitsa*), Pediatrics (*Kaumar Bharitya*), Psychiatry (*Graha Chikitsa*, Eye & ENT (*Shalya*), Geriatrics (*Rasayana*), Toxicology (*Visha-Tantra*) and Science of virility (*Vajikarna*)^[4,5].

Topography and Vegetation

Coimbatore is located at the foot hills of the Nilgiri hills in Western Tamil Nadu between 10°55' and 11°10' North and 76°10' east longitude. The forest areas such as Mangarai, Anaikatti (North and South Coimbatore Range, Siruvani hills and Sholakarai forest areas in Boluvampatti range, Mulli, Pillur and Manar hills in the Karamadai

range and Gopanari and Anaikatti forest areas in the Periyannayan Palyam ranges are under taken for survey. Similarly in the Anamalai Tiger Reserve (Indira Gandhi Wild life sanctuary) falls in the Coimbatore district is also undertaken for survey. It is located mainly in the Valparai taluk and extending its portion to Pollachi and Udumalpet taluk of Coimbatore district. It lies in between latitude 10°54' North and 76°44' and 77°48' East longitudes. The forest areas such as Mulli, Pillur, Manar hills, Siruvani, Anaikatti, Gopanari, in Coimbatore forest division and Varagaliyar, Topslip, Akkamalai, Monombolly forest areas in Anamalai Tiger Reserve (Indira Gandhi Wildlife sanctuary) are demarcated zones for rich floristic diversity.

Forest Ranges and Areas Surveyed

Name of the forest division	Range	Forest areas
Coimbatore forest division	Coimbatore	Mangarai, Anaikatti (North & South)
	Boluvampatti	Siruvani and Sholakarai Hills
	Karamadai	Mulli, Pillur and Manar hills
	Periyannayan Palayam	Gobanari, Anaikatti North & Central
Anamalai Tiger Reserve (Indira Gandhi Wildlife Sanctuary)	Ulandhy	Topslip, Varagaliyar forest areas
	Valparai	Akkamakai, Cinchona forest areas
	Manambolly	Manambolly forest areas

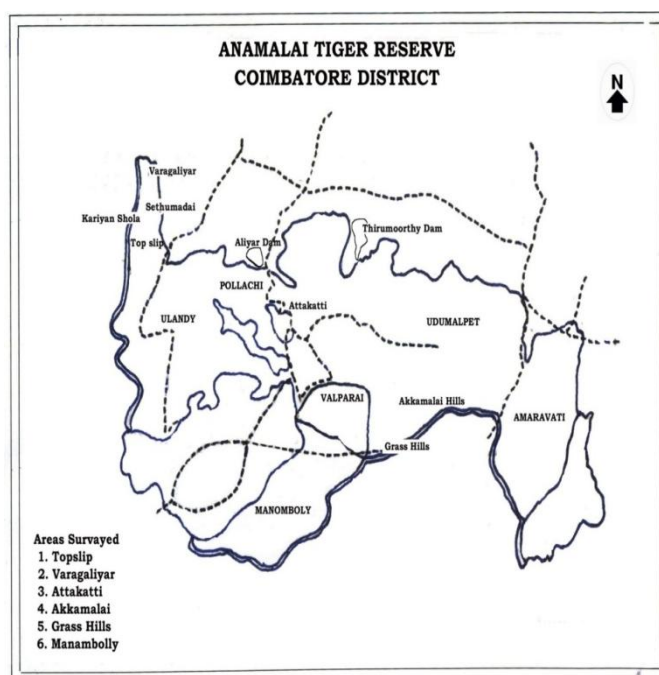
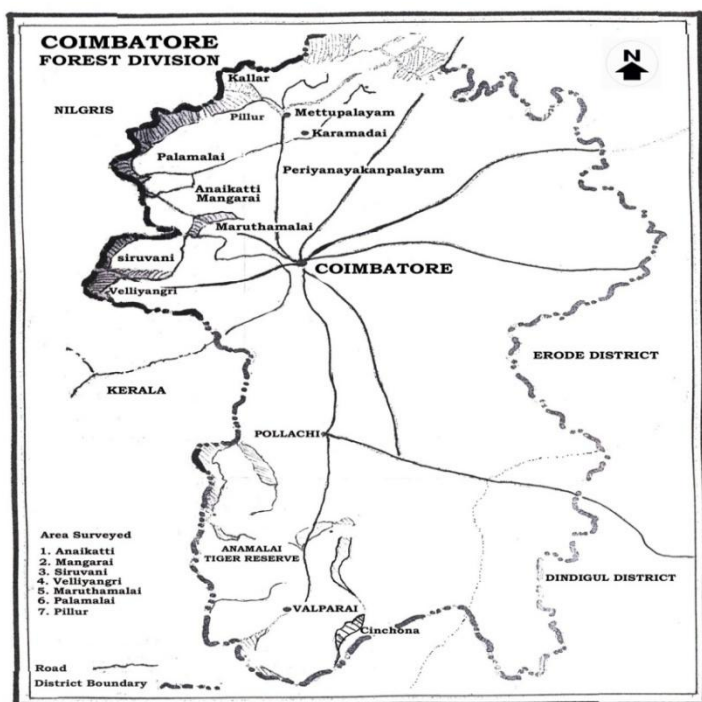


Fig 1: Map of the study area

Methodology

Multiday survey tour programme was conducted in different seasons at Coimbatore forest division, and Anamalai Tiger Reserve (Indira Gandhi Wildlife Sanctuary) in Coimbatore district during the year 2010-2014. About 10 forest areas belong to 4 forest ranges in Coimbatore forest division and 6 forest areas of 3 forest ranges of Anamalai Tiger Reserve (Indira Gandhi Wildlife Sanctuary) of Coimbatore district were surveyed and 352 plant species have been collected and identified. Among this 131 numbers of the Unani medicinal plants (Table-1) of 115 genera belonging to 64 families are discussed in the present paper with

their taxonomical identification and diversity status. The botanical identity of all the plant species are identified through modern floras^[6,7,8,9] and conformed at Botanical survey of India, Coimbatore, Tamil Nadu. The plants are arranged alphabetically according to their botanical names with collection number, followed by Ayurvedic name, curative diseases and their diversity status were described based on their occurrence in the nature (Table-1). The voucher specimens are deposited at the herbarium of the Survey of Medicinal Plants Unit (SMPU), Regional Research Institute of Unani Medicine (RRIUM), Chennai, Tamil Nadu.

Table 1: Potential Medicinal Plants of Ayurvedic System of Medicine and their Diversity Status in Southern Western Ghats of Coimbatore District, Tamil Nadu, India

S. No.	Botanical Name	Ayurveda Name	Curative diseases	Status
1	<i>Abrus precatorius</i> L. (RM-054)	Gunja	Hemiplegia, diseases of nervous system, leprosy and alopecia.	V
2	<i>Abutilon indicum</i> (L.) Sweet (RM-014)	Atithala	Diseases of nervous system, rheumatic pain, and chest pain.	C
3	<i>Acacia nilotica</i> (L.) Willd. ex Del.(RM-079)	Babbula	Hemorrhage, diarrhoea, dysentery, piles, worm infestation and skin diseases.	C
4	<i>Acacia sinuata</i> (Lour.) Merr (RM-080)	Saptala	Oedema, diseases of kapha, blood disorders.	S
5	<i>Achyranthes aspera</i> L. (RM-168)	Apamarga	Diseases of head and ear, worm infestation, piles, stomach disorders and emetic.	C
6	<i>Acorus calamus</i> L. (RM-205)	Vacha	Rheumatism, epilepsy, inflammation of throat, piles, obesity and typhoid.	C
7	<i>Aegle marmelos</i> (L.) Correa (RM-031)	Bilwa	Diarrhoea, dysentery, piles and intermittent fever.	V
8	<i>Aerva lanata</i> (L.) A. L. Juss. (RM-169)	Pashana bedadha	Urinary calculi, wounds, polyuria, piles, abdominal disorders, uterine diseases.	C
9	<i>Alangium salvifolium</i> (L.f.) Wang (RM-097)	Ankola	Diarrhoea, leprosy, fever and erysipelas	S
10	<i>Albizia lebeck</i> (L.) Willd. (RM-081)	Sireesha	Leprosy, wounds, cough, dyspnea and poisoning.	C
11	<i>Aloe vera</i> (L.) Burm.f. (RM-201)	Kumari	Abdominal disorders, worm infestations, dysuria, skin diseases blood disorders.	C
12	<i>Alpinia galanga</i> Sw. (RM-195)	Malayavacha	Nervous diseases, rheumatism, cardiac diseases, hoarseness of voice, polyuria and aphrodisiac.	C/C
13	<i>Alstonia scholaris</i> (L.) R.Br. (RM-118)	Saptachada	Fever, leprosy, malarial fever, worm infestation, wounds, cough, pain, dyspnea and blood diseases.	S
14	<i>Alternanthera sessilis</i> (L.) R. Br. ex DC.(RM-170)	Matsyakshi	Leprosy, fever, diseases of pitta and kapha, hemorrhage and used as rejuvenator.	C
15	<i>Amaranthus spinosus</i> L. (RM-171)	Tanduliyaka	Uterine diseases and burning sensation.	C
16	<i>Anacardium occidentale</i> L. (RM-050)	Kajoo	Used as rejuvenator.	C/C
17	<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees (RM-147)	Kalmegh Yavatika	Liver disorders, worm infestations, blood disorders, malarial fever, skin diseases and general debility.	R
18	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. (RM-083)	Dhawa	Polyuria, anemia, piles and leprosy.	S
19	<i>Annona squamosa</i> L. (RM-002)	Seethaphala	Diarrhoea, dysentery, cardiac diseases, hemorrhage.	C/C
20	<i>Argemonemexicana</i> L. ((RM-006)	Swanaksheeri	Stomach disorders, nervous diseases, worm infestation, pruritus, stomatitis and leprosy.	C
21	<i>Aristolochia indica</i> L. (RM-173)	Ishwari	Snake bite poisoning, worm infestation, fever, wounds and spider poisoning.	R
22	<i>Artemisia nilagirica</i> (Cl.) Pamp. (RM-107)	Damanaka	Anorexia, stomach pain, liver disorders, cardiac diseases, cough, dysuria, leprosy, itching, fever.	C
23	<i>Artocarpus heterophyllus</i> Lam. (RM-189)	Panasa	Diseases of pittam and vata, spermatorrhoea, wounds, cand used as tonic.	C/C
24	<i>Asclepias curassavica</i> L. (RM-123)	Kakanasa	Hair falling, epilepsy, cough, leprosy, mental disorders used as tonic and rejuvenator.	C
25	<i>Asparagus racemosus</i> Willd. (RM-202)	Satavari	Urinary disease, gynecological disorders, diseases of nervous system, hyperacidity, gastritis, menorrhagia and eye diseases.	R
26	<i>Atalantia monophylla</i> (Roxb.) DC.(RM-032)	Atavi jambeera	Fever, snake bite poisoning, antiseptic and stimulant.	C
27	<i>Azadirachta indica</i> A. Juss. (RM-038)	Nimba	Leprosy, liver disorders, cough, dyspnea, anorexia, polyuria, wounds, fever and eye diseases.	C
28	<i>Bacopa monnieri</i> (L.) Wettstein (RM-145)	Brahmi	Stammering, anemia, polyuria, psychosis, emaciation, epilepsy, fever, tonic, and used as rejuvenator.	V
29	<i>Barleria prionitis</i> L. (RM-148)	Sachachara	Diseases of nervous system, leprosy, pruritus, gout, rheumatoid arthritis, swellings on joints and poisoning.	C
30	<i>Bauhinia purpurea</i> L. (RM-068)	Kanchanara	Worm infestation, leprosy, wounds, menorrhagia, gout, cough, hemorrhage, urinary disorders, and goiter.	C
31	<i>Bauhinia racemosa</i> Lam. (RM-210)	Kanchanara	Worm infestation, leprosy, wounds, menorrhagia, gout, cough, hemorrhage, urinary disorders and goiter.	C
32	<i>Biophytum sensitivum</i> (L.) DC. (RM-029)	Dulupushpa	Dysuria and alleviating pitta	C
33	<i>Bixa orellana</i> L.(RM-011)	Sindoori	Alleviating kapha and vada, diseases of head.	C
34	<i>Boerhaavia diffusa</i> L. (RM-166)	Punarnava	Oedema, splenic disorders, urinary disorders, piles, anemia, cardiac diseases, hydrocele, stomach disorders and pain.	C
35	<i>Bombax ceiba</i> L.(RM-023)	Shalmali	Menorrhagia, fever, diarrhoea, diseases of pitta, dysentery, gout, hemorrhage and abdominal dis orders.	C
36	<i>Brassica juncea</i> (L.) Czern. & Coss.(RM-007)	Rajika	Coryza, headache, pruritus, leprosy, worm infestation, diseases of nervous system.	C/C
37	<i>Breynia vitis-idaea</i> (Burm.f) Fish.(RM-178)	Kamboji	Diseases of nervous system, oedema and blood disorders.	C

38	<i>Bridelia retusa</i> (L.) Spreng. (RM-179)	Ekaveera	Lumbago and sciatica.	C
39	<i>Buchanania lanzan</i> Spreng. (RM-051)	Priyala	Hemorrhage, fever, thirst, cardiac diseases, blood diseases, stomach disorders and leprosy.	C
40	<i>Butea monosperma</i> (Lam.) Taub. (RM-055)	Palasha	Worm infestation, gastritis, piles, gout, anorexia, abdominal disorders and splenic disorders.	C
41	<i>Caesalpinia crista</i> L. (RM-069)	Latakaranja	Vomiting, leprosy, disorders of blood, fever and abdominal disorders.	R
42	<i>Caesalpinia sappan</i> L. (RM-070)	Patanga	Bronchitis, wounds, erysipelas and goiter.	V
43	<i>Calophyllum inophyllum</i> L.(RM-013)	Punnaga	Rheumatoid arthritis, skin diseases, dysentery, hemorrhage and dysuria.	S
44	<i>Calotropis gigantea</i> (L.) R. Br.ex Ait. (RM-124)	Arka	Diseases of nervous system, leprosy, pruritis, abdominal disorders, piles, worm infestations and cough.	C
45	<i>Capparis zeylanica</i> L. (RM-008)	Vyagranakhi Himsra Kanthari	Oedema, glandular swellings and filariasis.	C
46	<i>Cardiospermum halicacabum</i> L. (RM-046)	Karnaspota Kakatiktta	Diseases of vatam, glandular swellings, eczema, constipation, piles, amenorrhoea.	C
47	<i>Careya arborea</i> Roxb. (RM-090)	Kumbhi	Diseases of vata and kapha.	S
48	<i>Carica papaya</i> L.(RM-092)	Eranda karkatee	Hemiplegia, rheumatoid arthritis, anorexia indigestion colic, piles, cardiac diseases, amenorrhoea and fever.	C/C
49	<i>Carmona retusa</i> (Vahl) Mas. (RM-130)	Charmakaravaltta	Polyuria, snake-bite poisoning.	C
50	<i>Carissa carandas</i> L. (RM-119)	Karamarda	Cardiac diseases, hemorrhage, diseases of nervous system, alleviating vata and pitta.	C
51	<i>Cassia auriculata</i> L. (RM-072)	Aavartaki	Polyuria, leprosy, worm infestation, diarrhoea, eye diseases and hemorrhage.	C
52	<i>Cassia fistula</i> L.(RM-073)	Aaragwadha	Leprosy, fever, cardiac diseases, jaundice and polyuria.	C
53	<i>Cassia occidentalis</i> L. (RM-)	Kasamarada	Eczema, filariasis, cough dyspnoea and polyuria.	C
54	<i>Cassia toral.</i> (RM-075)	Chakramarda	Skin diseases, constipation, abdominal disorders, obesity, dyspnoea, cough and blood disorders.	C
55	<i>Catharanthus roseus</i> (L.) Don.(RM-120)	Sadapushpa	Insomnia, cancer, diabetes, dysentery, blood pressure, anxiety and cardiac tonic.	C
56	<i>Catunaregam spinosa</i> (Thub.) Tiruv.(RM-098)	Madanaphalam	Pain, tympanitis, bronchial asthma, constipation and diseases of kapha.	C
57	<i>Celastrus paniculatus</i> Willd. (RM-040)	Jotishmati	Epilepsy, stomach disorders, odema, diseases of nervous system and brain tonic.	V
58	<i>Centella asiatica</i> (L.) Urban.(RM-096)	Mandookaparani	Epilepsy, leprosy, polyuria, distaste, psychosis and fever.	C
59	<i>Chenopodium album</i> L. (RM-172)	Vastuka	Worm infestation, general debility used as brain tonic and purgative.	C
60	<i>Cinchona officinalis</i> L. (RM-099)	Kunaina	Malarial fever, amenorrhoea, cold, heart diseases and used as anodyne.	S
61	<i>Cinnamomum verum</i> J.S.Presl (RM-175)	Twak	Anorexia, bronchial asthma, diseases of mouth,nausea, cold, dental diseases, vomiting.	S
62	<i>Cissu quadrangularis</i> L. (RM-044)	Asthishrinkhala	Gout, syphilis, venereal diseases, piles, aphrodisiac, leucorrhoea, anorexia and worm infestations.	C
63	<i>Citrus limon</i> (L.) Burm.f. (RM-033)	Jambeera	Anorexia, distaste, liver disorders, vomiting, constipation, cough, dyspnoea and worm infestation.	C/C
64	<i>Cleome viscosa</i> L. (RM-211)	Tilaparni	Whole plant used in fever, diseases of kapha and poisoning.	C
65	<i>Clerodendrum serratum</i> (L.) Moon (RM-152)	Bharangi	Intermittent fever, bronchial asthma, hiccup, worm infestation, abdominal disorders.	R
66	<i>Clerodendrum viscosum</i> Vent. (RM-153)	Bhandera	Diabetes.	C
67	<i>Clitoria ternatea</i> L. (RM-056)	Shankapushpi	Anorexia, piles, abdominal disorders, sterility in female, insomnia, epilepsy, psychosis, skin diseases and carminative.	C
68	<i>Coccinia grandis</i> (L.) J. Voigt.(RM-093)	Bimbee	Coryza, polyuria, diabetics, skin diseases, fever, anorexia, liver diseases, jaundice and dysentery.	C
69	<i>Coffea arabica</i> L.(RM-100)	Coffee	Anorexia, dysentery, cardiac diseases, urinary calculi, fiver, stomach disorders, vomiting and head ache.	C/C
70	<i>Costus speciosus</i> (Koen.) J.E.Sm. (RM-197)	Kemuka	Leprosy, cough, polyuria, hemorrhage and fever.	V
71	<i>Crotalaria verrucosa</i> L. (RM-057)	Shanapushpi	Leprosy, diarrhoea, dysentery, blood disorders and emetic.	C
72	<i>Croton tiglium</i> L.(RM-180)	Jayaphala	Oedema, piles, liver and abdominal disorders, worm infestations, dental diseases, urinary calculi, skin diseases and snake poisoning.	S
73	<i>Cryptolepis buchanani</i> L.(RM-127)	Sariva	Polyuria, hemorrhage, gout, wounds, leprosy, blood disorders, anemia and jaundice.	C
74	<i>Cuculigo orchioides</i> Gaertn. (RM-199)	Talamuli	Sprue, piles, blood disorder, aphrodisiac and used as rejuvenator.	R
75	<i>Cucurbita maxima</i> Duch. ex Lam.(RM-094)	Peetakushmanda	Dysuria and alcoholism.	C
76	<i>Curcuma longa</i> L. (RM-196)	Haridra	Leprosy, skin diseases, polyuria, jaundice, and anemia.	C
77	<i>Cuscuta reflexa</i> Roxb. (RM-134)	Aakashavalli	Anorexia, hyperacidity, worm infestation, rheumatoid arthritis and cardiac diseases.	C
78	<i>Cyclea peltata</i> (Lam.) Hk.f. &	Patha	Coryza, diarrhea, pain, cardiac diseases, hydrocele, burning sensation	S

	Thoms.(RM-003)		and dyspnea.	
79	<i>Cycus circinalis</i> L. (RM-208)	Vidari	Urinary disorders, emaciation, bronchial asthma, intermittent fever, hemorrhage, burning sensation, tonic, and aphrodisiac.	E
80	<i>Cynodon dactylon</i> (L.) Pers. (RM-206)	Durva	Hemorrhage, fainting, erysipelas, burning sensations, skin diseases, menorrhagia, distaste and vomiting.	C
81	<i>Dalbergia latifolia</i> Roxb. (RM-058)	Kushimshapa	Polyuria, ulcer, leprosy, leucoderma, urinary disorders, burning sensation, oedema and used as brain tonic.	C
82	<i>Datura innoxia</i> Mill. (RM-137)	Dattura	Scrofula, eye diseases, scorpion sting, poisoning, psychosis, epilepsy, fever, leprosy, boils, dysuria, dog bite poisoning.	C
83	<i>Datura metel</i> L.(RM-138)	Dattura	Scrofula, eye diseases, scorpion sting, poisoning, psychosis, epilepsy, fever, leprosy, boils, dysuria, dog bite poisoning.	C
84	<i>Desmodium gangeticum</i> (L.) DC. (RM-059)	Salaparni	Oedema, fever, diarrhoea, cardiac diseases, dyspnoea, polyuria, piles, vomiting and used as rejuvenator.	C
85	<i>Dioscorea bulbifera</i> L. (RM-200)	Vaaraahee	Leprosy, worm infestation, cardiacdiseases, urinary calculi, aphrodisiac.	C
86	<i>Dodonaea viscosa</i> (L.) Jacq. (RM-047)	Rasna	Nervous system, fistula, ear diseases.	S
87	<i>Eclipta prostrata</i> (L.) Mant. (RM-108)	Bhrngaraaja	Eye diseases, hair falling, diseases of head, bronchial asthma, leprosy, worm infestation, oedema, and anemia.	C
88	<i>Elaeocarpus serratus</i> L.(RM-027)	Rudraksha	Cough, dyspnoea, boils, liver disorders, diseases of nervous system, fever, epilepsy, psychosis and vomiting.	C
89	<i>Elephantopus scaber</i> L. (RM-109)	Mayura shika	Diarrhoea, hemorrhage, urinary calculi, leprosy and retention of urine.	C
90	<i>Embelia ribes</i> Burm.f. (RM-113)	Vidanga	Worm infestation, distaste, anemia, oedema, fever, anorexia, urinary caculi, polyuria fistula pain and vomiting.	S
91	<i>Erythrina variegata</i> L. (RM-060)	Paribhadrika	Worm infestations, ear diseases, dyspnoea, cough, diseases of kapha and vata, anorexia and leprosy.	C
92	<i>Eucalyptus citridora</i> Hk. (RM-087)	Tailaparni	Diseases of vata and kapha, wounds, joint pain, worm infestation, diarrhoea, dysentery, cardiac diseases, headache.	C
93	<i>Euphorbia hirta</i> L. (RM-181)	Dugdika	Urinary disorders, worm infestation, dyspnoea, sterility, purgative and aphrodisiac.	C
94	<i>Evolvulus alsinoides</i> L. (RM-135)	Shankapushpi	Anorexia, piles, abdominal disorders, sterility in female, hematemesi, insomnia, psychosis, skin diseases, carminative.	V
95	<i>Ficus benghalensis</i> L. (RM-190)	Vata	Diabetes, erysipelas, burning sensation, fainting, uterine disorders and vomiting.	C
96	<i>Ficus hispida</i> L. f. (RM-191)	Kakodumbara	Leprosy, leucoderma, anaemia, jaundice, piles, wounds, burning sensation and hemorrhage.	C
97	<i>Ficus racemosa</i> L. (RM-192)	Udumbara Gular	Oedema, wounds, diarrhea, dysentery, uterine bleeding, leucorrhoea, and polyuria.	C
98	<i>Ficus religiosa</i> L.(RM-193)	Ashwatha	Oedema, uterine disorders, thirst, burning sensation and polyuria.	C
99	<i>Girardinia diversifolia</i> (Link) Fris (RM-187)	Vrschika	Hydrocele and oedema.	C
100	<i>Gloriosa superba</i> L. (RM-203)	Laangali	Leprosy, piles, worm infestation and wounds.	V
101	<i>Gmelina arborea</i> Roxb. (RM-154)	Gambhari	Diseases of nervous system, oedema, cardiac diseases, piles, burning sensation.	C
102	<i>Gmelina asiatica</i> L. (RM-155)	Kshudragambhari	Diseases of nervous system, oedema, cardiac diseases, dysuria, piles, poisoning, burning sensation.	S
103	<i>Gnetum ula</i> Brongn. (RM-209)	Mrigalindika	Aphrodisiac, stimulant, diseases of kapha and vata	E
104	<i>Gossypium herbaceum</i> L.(RM-015)	Karpasa	Diseases of nervous system hemiplegia and leucorrhoea.	C/C
105	<i>Grewia hirsuta</i> Vahl (RM-025)	Nagabala	Cardiac diseases, wounds, erysipelas, polyuria, diseases of nervous system, aphrodisiac and used as rejuvenator.	C
106	<i>Grewia tiliifolia</i> Vahl.(RM-026)	Dhanwana	Cough, cardiac diseases, blood disorders, diseases of kapha and vata, wounds.	C
107	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Schult. (RM-125)	Ajasingi	Head ache, polyuria, leprosy, pruritis, wounds, bronchial asthma and diseases of kapha.	V
108	<i>Haldina cordifolia</i> (Roxb.) Ridss. (RM-101)	Haridru	Worm infestation, vomiting, fever, liver disorders, leprosy and anaemia.	V
109	<i>Helicteres isora</i> L. (RM-024)	Aavartanee	Blood disorders, diarrhoea, dysentery, polyuria and worm infestations.	C
110	<i>Hemidemus indicus</i> (L.) Schult. (RM-)	Sariva	Polyuria, hemorrhage, gout, wounds, blood disorders, anaemia and jaundice.	C
111	<i>Hibiscus cannabinus</i> L. (RM 016)	Usheera	Stomach disorders.	C
112	<i>Hibiscus mutabilis</i> L. (RM-017)	Sthalakamala	Dysuria, urinary calculi, abdominal disorders, cough, respiratory disorders, head ache, diabetes and anti-inflammatory.	C
113	<i>Hibiscus rosa-sinensis</i> L. (RM-018)	Japa	Diarrhoea, piles, hemorrhage, polyuria, hair falling and menorrhagia.	C
114	<i>Heliotropium indicum</i> L. (RM-132)	Hastishundi	Whole plant used in fever.	C
115	<i>Holoptelea integrifolia</i> (Roxb.) Planch.(RM-188)	Chirabilwa	Tuberculosis, piles, fistula, abdominal diseases, leprosy, polyuria and vomiting.	C
116	<i>Hybanthus enneaspermus</i> (L.) F.v. Muell. (RM-010)	Sthalakamala	Dysuria, urinary calculi, abdominal disorders, dyspepsia, cough, poisoning, respiratory disorders, head ache, diabetes, and anti-inflammatory.	S

117	<i>Hydnocarpus pentandra</i> (Buch.-Ham.) Oken.(RM-012)	Tuvaraka	Leprosy, leucoderma worm infestation, polyuria, eye diseases, sinus and wounds.	S
118	<i>Hygrophila auriculata</i> L. (RM-149)	Kokilaksha	Urinary calculi, dysuria, gout, eye diseases, aphrodisiac thirst, and used as rejuvenator.	C
119	<i>Indigofera tinctoria</i> L. (RM-061)	Neelinee	Intoxication, fainting, constipation, blood disorders, oedema, urinary calculi and dog-bite poisoning.	C
120	<i>Ipomoea nil</i> (L.) Roth.(RM-136)	Krishna beeja	Fever, diseases of head, worm infestations, stomach disorders and used as rejuvenator.	C
121	<i>Jasminum azoricum</i> Vahl.(RM-213)	Tarunee	Hemorrhage, diarrhoea, worm infestation, wounds and used as rejuvenator.	C
122	<i>Jatropha curcas</i> L. (RM-182)	Vayagra eranda	Worm infestation, ascites, constipation, oedema, leprosy, snake bite poisoning.	C
123	<i>Justicia adhatoda</i> Medick. (RM-150)	Vaasa	Bronchial asthma, hemorrhage, fever, delirium, leprosy, piles and vomiting.	C
124	<i>Kalanchoe pinnata</i> (Lam.) Pers. (RM-082)	Parnabeeja	Dysentery, menorrhagia, wounds and leprosy.	C
125	<i>Lablab purpureus</i> (L.) Sweet.(RM-062)	Nishpava	Hemorrhage, anaemia and hiccup.	C/C
126	<i>Lantana camara</i> L. (RM-156)	Nadi bhallataka	Haemorrhage, diseases of kapha and diarrhoea.	C
127	<i>Lawsonia inermis</i> L. (RM-091)	Madayantika	Coryza, diarrhoea, leprosy, fever, headache, cardiac diseases, oedema and blood disorders.	C
128	<i>Leea indica</i> L.(RM-045)	Jeeravali	Cardiac diseases, leprosy, diseases of vata and kapha.	C
129	<i>Leonotis nepetifolia</i> (L) R. Br. (RM-161)	Adukuthumbai	Vata and kapha, nasal disorders, stomatitis, indigestion, worm infestation	C/C
130	<i>Leucas aspera</i> (Willd.) Link. (RM-160)	Dronapushpee	Jaundice, intermittent fever, skin diseases, cough, cold, dyspnoea and fever.	C
131	<i>Limonia acidissima</i> L. (RM-034)	Kapittha	Trachyphonia and thirst.	C
132	<i>Madhuca longifolia</i> (Koen.) Macbr. (RM-114)	Madhuca	Oedema, leprosy, polyuria, diarrhoea, fever, gout and wasting diseases.	C
133	<i>Mallotus philippensis</i> (Lam.) Muell.(RM-183)	Kampilaka	Abdominal disorders, worm infestation, constipation, polyuria, wounds, urinary calculi and purgative.	C
134	<i>Mangifera indica</i> L. (RM-052)	Aamra	Ear diseases, menorrhagia.	C/C
135	<i>Melia azedarach</i> L. (RM-039)	Mahanimbu	Leprosy, blood disorders, fever, polyuria, piles, dyspnoea, rate bite and abdominal disorders.	C
136	<i>Michelia champaca</i> L. (RM-001)	Champaka	Burning sensation, diseases of kapha, skin diseases, head ache, cardiac diseases, worm infestations, cough and dyspnea.	C
137	<i>Mimosa pudica</i> L.(RM-078)	Lajjalu	Diarrhoea, dyspnoea, leprosy, uterine disorders, hemorrhage, wounds, oedema and burning sensation.	C
138	<i>Mirabilis jalapa</i> L. (RM-167)	Gulambasa	Root used in boils and piles.	C
139	<i>Momordica charantia</i> L. (RM-095)	Karavellaka	Leprosy, oedema, distaste, anorexia, rheumatism, liver disorder, piles, diabetes, and obesity.	C/C
140	<i>Moringa pterygosperma</i> Gaertn. (RM-053)	Shobhanjana	Amenorrhoea, obesity, eye diseases, carcinogenic growth, hemiplegia, abdominal diseases and worm infestations.	C
141	<i>Morus alba</i> L. (RM-194)	Tooda	Acidity, haemorrhage, diseases of vata and pitta.	C/C
142	<i>Mucuna pruriens</i> (L.) DC. (RM-063)	Kapikachhu	Disease of pitta, wounds, worm infestation, alleviating vata,aphrodisiac and tonic.	R
143	<i>Murraya koenigii</i> (L.) Spreng. (RM-035)	Kaidarya	Dropsy, dysentery and diarrhoea.	C
144	<i>Nelumbium nucifera</i> Gaertn. (RM-)	Kamala	Thirst, burning sensation, boils, hemorrhage, skin diseases, diarrhoea and bleeding piles.	C
145	<i>Nerium oleander</i> L. (RM-005)	Karaveera	Leprosy, wounds.	C
146	<i>Nyctanthes arbo-tristis</i> L. (RM-117)	Parijata	Sciatica, anorexia, liver disorders, piles, worm infestation, blood disorders, skin diseases, fever and snake bite poisoning.	C
147	<i>Ocimum americanum</i> L. (RM-162)	Tulsi	Fever, coryza, mental disorders, diseases of vatam, and kapham, digestive disorders, cough, dyspnoea, leucorrhoea and ulcers.	C
148	<i>Ocimum basilicum</i> L. (RM-163)	Tulsi	Fever, coryza, mental disorders, diseases of vatam, and kapham, digestive disorders, cough, dyspnoea, leucorrhoea and ulcers.	C
149	<i>Ocimum tenuifolium</i> L. (RM-164)	Thulasi	Fever, coryza, mental disorders, diseases of vatam, and kapham, digestive disorders, cough, dyspnoea, leucorrhoea and ulcers.	C
150	<i>Ophiorrhiza mungos</i> L. (RM-103)	Sarpakshee	Poisoning.	C
151	<i>Pavonia odorata</i> Willd (RM-019)	Bala	Pain, nervous disorders, coryza and cardiac diseases.	C
152	<i>Pedaliom murex</i> L. (RM-146)	Brhat Gokshura	Dysuria, polyuria, oedema, bronchial asthma, piles, cardiac diseases, urinary calculi, anorexia and diseases of nervous system.	C
153	<i>Phyllanthus amarus</i> Schum. & Thon.(RM-184)	Bhoomy amalakee	Eye diseases, hiccup, anemia, jaundice, thirst, urinary disorders and leprosy.	C
154	<i>Phyllanthus emblica</i> L. (RM-185)	Aamalaki	Cardiac diseases, chronic fever, polyuria, vomiting, constipation, eye diseases, hemorrhage, tuberculosis, cough.	C/C
155	<i>Physalis minima</i> L. (RM-139)	Avagutha	Blood disorder, fever and bronchial asthma.	C
156	<i>Piper nigrum</i> L.(RM-174)	Maricha	Fever, anemia, cough, diarrhoea, abdominal disorders, piles, convulsion, polyuria, head ache, indigestion and jaundice.	C/C

157	<i>Plantago ovata</i> Forssk. (RM-165)	Ashwagola	Diseases of head, oedema, erysipelas, dry cough, diarrhoea, dysentery, dysuria, diabetes, general debility and fever.	R
158	<i>Plumbago zeylanica</i> L. (RM-112)	Chitraka	Leprosy, oedema, piles, worm infestation, anemia, anorexia fever, bronchial asthma.	C
159	<i>Pongamia pinnata</i> (L.) Pierre (RM-064)	Karanja	Oedema, piles, worm infestation, leprosy, urine disorders, wounds, polyuria, stomach disorders.	C
160	<i>Psidium guajava</i> L. (RM-088)	Amarutha	Diseases of pitta and urinary disorders.	C/C
161	<i>Pterocarpus marsupium</i> Roxb. (RM-065)	Asana	Worm infestation, wounds, leucoderma and polyuria.	S
162	<i>Rhinacanthus naustus</i> (L.) Kurz.(RM-121)	Yuthiparni	Skin diseases, worm infestation, blood disorders, poisoning and aphrodisiac.	C
163	<i>Ricinus communis</i> L. (RM-186)	Eranda	Abdominal disorders, worm infestation, piles, cough, dyspnoea, dysuria, constipation, leprosy and fever.	C/C
164	<i>Rubia cordifolia</i> L. (RM-105)	Manjistha	Oedema, diarrhoea, leprosy, erysipelas, wounds, polyuria, gynecological disorders, eye diseases, dysuria and ear diseases.	V
165	<i>Ruta chalepensis</i> L. (RM-036)	Sitabha	Hemiplegia, oedema ear ache, epilepsy, indigestion, stomach pain, worm infestation and skin diseases.	R
166	<i>Santalum album</i> L. (RM-176)	Candana	Worm infestation, fever, burning sensation, polyuria, poisoning, debility, dysuria.	E
167	<i>Sapindus laurifolia</i> Vahl(RM-048)	Aristhaka	Leprosy, pruritus, boils, diseases of head, emetic and abortifacient.	S
168	<i>Schleichera oleosa</i> (Lour.) Oken (RM-049)	Koshamra	Diseases of kapha and vata, boils, leprosy, skin diseases, ulcers, joint pain, blood disorders, fever.	S
169	<i>Sesbania grandiflora</i> (L.) Poir. (RM-066)	Agsthya	Body pain, boils, epilepsy, fever, worm infestation, hemorrhage, night blindness and enhance memory power.	C
170	<i>Sida acuta</i> Burm.(RM-020)	Bala	Used in pain, nervous disorders, and cardiac diseases.	C
171	<i>Solanum nigrum</i> L. (RM-140)	Kakamachi	Leprosy, piles, fever, oedema, polyuria, cardiac diseases, vomiting.	C/C
172	<i>Solanum surattense</i> Burm.f. (RM-141)	Kantakari	Constipation, worm infestation, blood disorders, skin diseases, oedema, urinary calculi, amenorrhoea, epilepsy, and dysuria.	C
173	<i>Solanum torvum</i> Sw. (RM-142)	Brhati	Cough, dyspnoea, dysuria, dental diseases, rheumatoid arthritis, pain, anorexia, alopecia, and urinary calculi.	C
174	<i>Solanum trilobatum</i> L. (RM-143)	Kantakari	Dyspnoea, anorexia, constipation, worm infestation, blood disorders, skin diseases, urinary calculi, amenorrhoea, epilepsy and dysuria.	C
175	<i>Sphaeranthus indicus</i> L. (RM-110)	Mundee	Anorexia, jaundice, piles and worm infestation.	C
176	<i>Strychnos nuxvomica</i> L. (RM-1269)	Kupeelu (Karaskara)	Rheumatism, wounds, hemiplegia, stomach disorders, cough, general debility, leprosy, boils and intermittent fever.	S
177	<i>Symplocos racemosa</i> Roxb. (RM-115)	Lodhra	Polyuria, leucoderma, menorrhagia, leprosy, dental diseases, stomatitis, dysentery, diarrhoea, and oedema.	R
178	<i>Sygium cumini</i> (L.) Skeels (RM-089)	Jambu	Hemorrhage, burning sensation, polyuria, diabetes mellitus and alleviating vata.	C
179	<i>Tamarindus indica</i> L. (RM-077)	Amlika	Hyperacidity, pain, leucorrhoea, oedema diseases of kapha and pitta.	C
180	<i>Tectona grandis</i> L. (RM-157)	Shaka	Hemorrhage, leprosy, polyuria and sterility in female.	C
181	<i>Tephrosia purpurea</i> (L.) Pers. (RM-067)	Sharapunkha	Splenic disorders, liver disorders, cough, dyspnoea, diseases of blood, chronic ulcers, fever and pain.	C
182	<i>Terminalia arjuna</i> (Roxb ex DC.) Wt. & Arn. (RM-084)	Arjuna	Polyuria, cardiac diseases, blood disorders, chronic fever, obesity and skin diseases.	S
183	<i>Terminalia bellirica</i> (Gaertn.) Roxb.(RM-085)	Bibhitaka	Bronchial asthma, eye diseases, diarrhoea, constipation, worm infestation and cardiac diseases.	S
184	<i>Terminalia chebula</i> Retz. (RM-086)	Haritakee	Anorexia, constipation, abdominal disorders, piles, skin diseases, fever, cardiac tonic.	S
185	<i>Tinospora cordifolia</i> (Willd.) Miers.(RM-004)	Guduci	Fever, anemia, jaundice, leprosy, worm infection, cough, burning sensation, gout, and vomiting.	C
186	<i>Tribulus terrestris</i> L. (RM-028)	Gokshura	Dysuria, polyuria, bronchial asthma, piles, cardiac diseases, and diseases of nervous system.	C
187	<i>Trichodesma indica</i> (L.) R.Br. (RM-133)	Aadhapusphi	Arthritis, anorexia, dysentery, skin diseases, snake bite, poisoning and fever.	C
188	<i>Tylophora indica</i> (Burm.f.) Merr.(RM-126)	Antrapachaka Arkaparni	Diseases of head, thirst, bronchial asthma, and spider poisoning.	C
189	<i>Vetiveria zizanioides</i> (L.) Nash (RM-207)	Usheera	Anorexia, indigestion, diarrhoea, blood disorders, cough, diuretic and debility.	C
190	<i>Viola pilosa</i> Bl. (RM-214)	Banafsha	Skin diseases, head ache, liver disorders, constipation, blood disorders, cough and fever.	S
191	<i>Vitex negundo</i> L.(RM-158)	Nirgundi	Diseases of nervous system, rheumatoid arthritis, cold, bronchial asthma and abdominal disorders.	C
192	<i>Withania somnifera</i> (L.) Dunal (RM-144)	Aswagandha	Fever, swellings, diseases of vatam, ulcers, diseases of nervous system and aphrodisiac.	R
193	<i>Wrightia tinctoria</i> (Roxb.) R. Br.(RM-122)	Kutaja	Piles, hemorrhage, leprosy, worm infestation, thirst, diarrhoea, dysentery and erysipelas.	C
194	<i>Xanthium indicum</i> Koen. (RM-111)	Kacchaka	Anaemia and jaundice.	C
195	<i>Ziziphus oenoplia</i> (L.) Mill.(RM-042)	Badara	Bronchial Asthma, diarrhoea, aphrodisiac, emetic and digestive.	C

196	<i>Zizyphus mauritiana</i> Lam. (RM-041)	Badara	Bronchial asthma, diarrhoea, aphrodisiac, emetic, carminative and digestive.	C
197	<i>Zizyphus rugosa</i> Lam. (RM-043)	Badara	Bronchial asthma, diarrhoea, aphrodisiac, emetic, carminative and digestive.	C

C-Common, C/C- Common & Cultivated, S-Sporadic, V-Vulnerable, R- Rare, E- Endangered

The present investigation was undertaken to explore the medicinal plant diversity, which are used in the Ayurvedic system of medicine. During the present study, several intensive and extensive field visits were conducted to survey and document these medicinal plants, each field visits were made with co-operation of the department of Forests and Wild life in order to enumerate the diversity of medicinal plant species in range wise in Coimbatore Forest division and Anamalai Tiger Reserve (Indira Gandhi Wildlife Sanctuary) of Southern Western Ghats in Coimbatore district, Tamil Nadu. Moreover, it is observed that, these areas are rich in floristic diversity, particularly in indigenous medicinal plants. The present study has been conducted during 2010-2014 in various seasons in different forest areas such as Mangarai, Anaikatti in Coimbatore range, Siruvani and Velliyagiri Hills in Boluvampatti range, Mulli, Pillur and Manar hills in Karamadai range and Palamalai and Gobanari in Periyayanayakan Palayam range of Coimbatore forest division, similarly, Topslip, Varagaliyar forest areas in Ulandy range, Akkamakai, Cinchona forest areas in Valparai range and Manambolly forest areas in Manambolly range.

The collection of each plant specimens in fresh condition are to be collected from the study area are provided field book numbers and the phenological data such as habit, habitat, brief botanical description of each species have been noted in the field note book. All the specimens were processed as per the standard procedure^[10,11,12]. The voucher specimens were identified with help of various Floras and available literatures^[13,6,7,8,9,14,15]. The correct identity of all taxa was regularized strictly according to the International Code of Botanical Nomenclature (ICBN).

The correct identity of the herbarium specimens were then confirmed by further critical study with the help of authentic specimens deposited in the Madras Herbarium (MH), Botanical Survey of India (BSI), Southern Circle, Coimbatore, Tamil Nadu. Descriptions were made from the fresh collections. The vegetation types and many interesting plants were photographed, important observations and any other relevant field data were noted in the field itself. Suitable maps, tables, figures and plates are given in appropriate places. The voucher specimens were deposited in the Botany Department Herbarium, Bharathiar University, Coimbatore, Tamil Nadu for future verification.

RESULT AND DISCUSSION

In the present study 197 Ayurvedic medicinal plants which belongs to 175 genera and 84 families were collected from the forest areas of Southern Western Ghats of Coimbatore district, Tamil Nadu and analysed their diversity status with their therapeutic uses (Fig.1). The most of the potential medicinal plants which are documented from the study area are used in the Ayurvedic system, which is being practiced in our country as indigenous system of medicine. Some of the potential medicinal plants species such as *Abrus precatorius* L. (Gunja) used in hemiplegia, diseases of nervous system, leprosy and alopecia, *Acacia nilotica* (L.) Willd. ex Del. (Babbula) used in haemorrhage, diarrhoea, dysentery, piles, worm infestation and skin diseases, *Aegle marmelos* (L.) Correa (Bilwa) used in diarrhoea, dysentery, piles and intermittent fever, *Alangium salvifolium* (L.f) Wang. (Ankola) used in diarrhoea, leprosy, fever and erysipelas, *Alpinia galanga* Sw. (Malayavacha) used in nervous diseases, rheumatism, distaste, anorexia, cardiac diseases, hoarseness of voice, stammering, polyuria and aphrodisiac, *Alstonia scholaris* (L.) R. (Saptachada) used in fever, leprosy, malarial fever, worm infestation, wounds, cough, pain, dyspnoea and blood diseases, *Andrographis paniculata* (Burm. f.) Wall. ex Nees (Yavatikta) used in liver disorders, worm infestations, blood disorders, malarial fever, skin

diseases and general debility, *Aristolochia indica* L. (Ishwari) used in snake bite poisoning, worm infestation, fever, wounds and spider poisoning, *Asparagus racemosus* Willd. (Satavari) used in urinary disease, gynaecological disorders, diseases of nervous system, hyperacidity, gastritis, menorrhagia, eye diseases, galactagogue and used as tonic, *Azadirachta indica* A. Juss. (Nimba) used in leprosy, liver disorders, cough, dyspnoea, anorexia, polyuria, wounds, fever and eye diseases, *Bacopa monnieri* (L.) Wetl. (Brahmi) used in stammering, dumbness, anaemia, leprosy, polyuria, psychosis, emaciation, epilepsy, fever, tonic, and used as rejuvenator.

Biophytum sensitivum (L.) DC. (Dulupushpa) used in dysuria and alleviating pitta, *Boerhaavia diffusa* L. (Punarnava) used in oedema, splenic disorders, urinary calculi and other urinary disorders, piles, anaemia, sprue, cardiac diseases, hydrocele, stomach disorders and pain, *Buchanania lanzan* Spreng. (Priyala) used in haemorrhage, burning sensation, fever, thirst, cardiac diseases, blood diseases, stomach disorders and leprosy, *Butea monosperma* (Lam.) Taub (Palasha) used in worm infestation, gastritis, piles, gout, anorexia, abdominal disorders and splenic disorders, *Caesalpinia crista* L. (Latakaranja) used in vomiting, leprosy, disorders of blood, fever and abdominal disorders, *Calophyllum inophyllum* L. (Punnaga) used in rheumatoid arthritis, joint pain, skin diseases, dysentery, haemorrhage and dysuria, *Clerodendrum serratum* (L.) Moon (Bharangi) used in intermittent fever, bronchial asthma, hiccup, worm infestation, burning sensation, abdominal disorders, wasting diseases, diseases of head and sprue, *Costus speciosus* (Koen.) J.E. Smith. (Kemuka) used in leprosy, cough, polyuria, haemorrhage and fever, *Croton tiglium* L. (Jayaphala) used in inoedema, anodyne, piles, anorexia, liver disorders, blood disorders, abdominal disorders, worm infestations, bronchial disorders, dental diseases, urinary calculi, skin diseases and snake poisoning, *Curculigo orchioides* Gaertn. (Talamuli) used in sprue, piles, blood disorder, aphrodisiac and used as rejuvenator, *Desmodium gangeticum* (L.) DC. (Salaparni) used in inoedema, fever, diarrhoea, cardiac diseases, dyspnoea, polyuria, piles, vomiting and used as rejuvenator, *Emblia ribes* Burm.f. (Vidanga) used in worm infestation, distaste, anaemia, oedema, fever, anorexia, urinary calculi, polyuria, fistula pain and vomiting etc., are used in the Ayurveda system. The detailed uses of these plants are also given in tabular format (Table -1).

The system has its own research methodology. Pancha anumanavakya consist of Pratigya, Hetu, Udaharan, Upanasya and Nigamana which respectively means the hypothesis, supportive theory, or experiment, example having same phenomenon proved acceptance of hypothesis and establishment of a principles.^[16]

In Ayurveda the species *Cissus quadrangularis* is used for the treatment of osteoarthritis, rheumatoid arthritis and osteoporosis^[17], is also used by the tribes inhabited in the study area of ease pain caused by rheumatoid arthritis. *Aerva lanata* which is extensively used in Ayurveda system or medicine in order to dissolve the urinary calculus and stones^[18], is also used by the tribes in the study area to treat nephrolithiasis. In the ayurvedic system of medicine *Curculigo orchioides* which holds a special position as a potent adoptogen and aphrodisiac^[19] is also used by the tribes to treat the problem of erectile dysfunction. The specialty of Ayurveda is internal medicine (Kayachikitsa), Paediatrics (Kaumar Bharitlya), Psychiatry (Graha Chikitsa), eye and ENT (Shalya), Geriatrics (Rasayana), Toxicology (Visha-Tantra) and virility (Vajikarana)^[4].

Similar studies have been carried out by researchers of Ayurveda medicine in the treatment of Panchakarma an ayurvedic therapy and

reported that many of the potential plants like *Abutilon indicum* D. Don, used as antifungal, antibacterial, analgesic; *Aegle marmelos* (L.) Correa., used as hypoglycaemic, analgesic, antidiarrheal, cardiac stimulant; *Albizia lebbek* (L.) Willd., used as hypoglycaemic, anti-allergic, analgesic; *Asparagus racemosus* L., used as diuretic, antiviral; *Azadirachta indica* A. Juss., used as antibacterial, antimalarial, anti-inflammatory, antipyretic; *Boerhaavia diffusa* L., used as diuretic, anti-inflammatory, anti-bacterial; *Buchanania lanzan* Spreng., used as nervine tonic, antileprotic, anti-cough, anti-urticarial.

Calotropis gigantea (L.) R.Br. ex Ait. antimicrobial, anticancer, anthelmintic; *Catunaregam spinosa* (Thunb.) Tiruv., used as anti-inflammatory, antipyretic, anti-cancer, cardiac stimulant; *Centella asiatica* (L.) Urban., hepato-protective, sedative, antispasmodic; *Clerodendrum viscosum* Vent., anti-inflammatory, antipyretic, anticancer, cardiac stimulant; *Curcuma longa* L., used as anti-inflammatory, antifungal, hypocholesteremic; *Desmodium gangeticum* (L.) DC., used as anti-inflammatory, analgesic, antipyretic etc., *Embelia ribes* Burm. f., used as anthelmintic, digestive, anticolic, carminative; *Ficus benghalensis* L. antioxidant, anti-diabetic, antifertility; *Ficus racemosa* L., antidiarrheal, hypoglycaemic, hepato-protective, anti-inflammatory; *Hemidesmus indicus* (L.) R. Br., used as anti-inflammatory, anticancer, antifungal, antibacterial.

Moringa pterygosperma Gaertn., used as antibacterial, antifungal, hepato-protective; *Plumbago zeylanica* L. used as appetizer, antibacterial, antifertility; *Pongamia pinnata* (L.) Pierre, used as purgative, blood purifier, cough; *Ricinus communis* L. used as analgesic, purgative, anthelmintic; *Syzygium cumini* (L.) Skeels., hypoglycaemic, anti-inflammatory, antidiarrheal; *Terminalia bellirica* (Gaertn.) Roxb., used as purgative, antimicrobial; *Terminalia chebula* Retz., antimicrobial, purgative, antispasmodic; *Tinospora cordifolia* (Willd.) Miers., used as hypoglycaemic, antibacterial, antipyretic, analgesic; *Tribulus terrestris* L., used as diuretic, antibacterial, analgesic etc.,^[20]

In the life form analysis 71 species of herbs, 78 species of trees, 26 species of climbers, twiners and creepers and 22 species of shrubs were collected and identified during the field study (Fig.3). In the family level Fabaceae is the largest family with 15 species, followed by in Euphorbiaceae with 11 species, Rutaceae with 8 species, Solanaceae with 8 species are represents as dominant families of the study area. The study also revealed that the families like Verbenaceae and Caesalpinaceae families represents with 7 families. The families like Malvaceae and Moraceae represents with 6 species each respectively and the families like Acanthaceae, Asteraceae, Lamiaceae and Rubiaceae are represents each 5 plants. Similarly other families are distributed each 4, 3, 2 or 1 species respectively (Fig.2).

There are 149 species are common in which few of the species are engaged in cultivation activities species like *Alpinia galanga* Sw., *Annona squamosa* L., *Anacardium occidentale* L., *Artocarpus heterophyllus* Lam., *Brassica juncea* L., *Carica papaya* L., *Coffea arabica* L., *Citrus limon* (L.) Burm.f., *Curcuma longa* L., *Gossypium herbaceum* L., *Lablab purpureus* (L.) Sweet, *Mangifera indica* L., *Momordica charantia* L. *Moringa pterigosperma* Gaertn., *Phyllanthus emblica* L., *Piper nigrum* L., *Psidium guajava* L., *Solanum nigrum* L., *Ricinus communis* L. *Solanum nigrum* L. and *Tamarindus indica* L., are found in cultivation activities in some part of the study area. More over 23 species are falls in sporadic distribution restricted their distribution to particular areas, 11 species are vulnerable distribution, 13 species are under rare distribution which are very much restricted their distribution in the study area and 2 species is in endangered category respectively, besides the study also revealed that 6 species are represents as endemic species of the Southern Western Ghats of the Coimbatore district, Tamil Nadu (Fig.3).

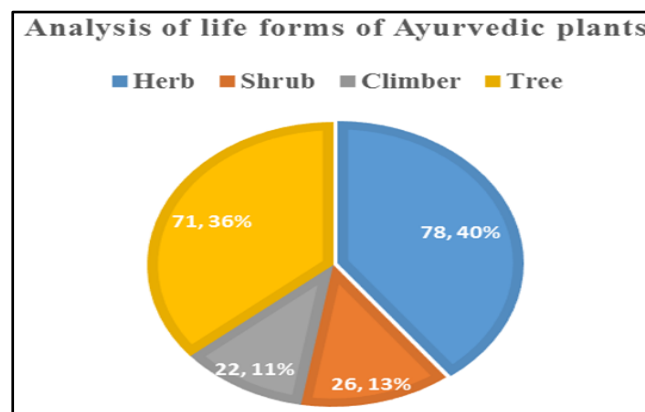


Fig 2: Analysis of Life forms of Ayurvedic plants with respect to number of species from the study area

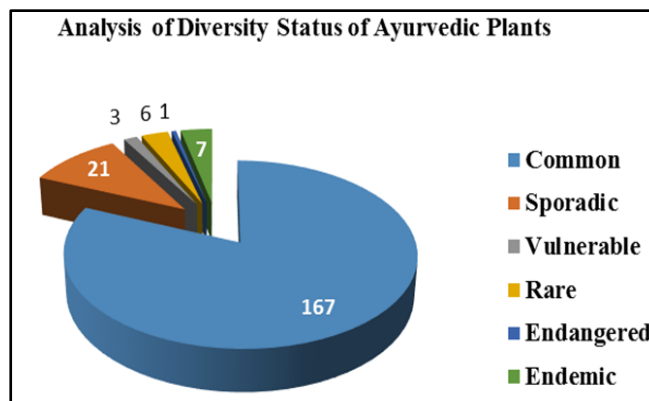


Fig 3: Analysis of diversity status of Ayurvedic plants with respect to number of species from the study area

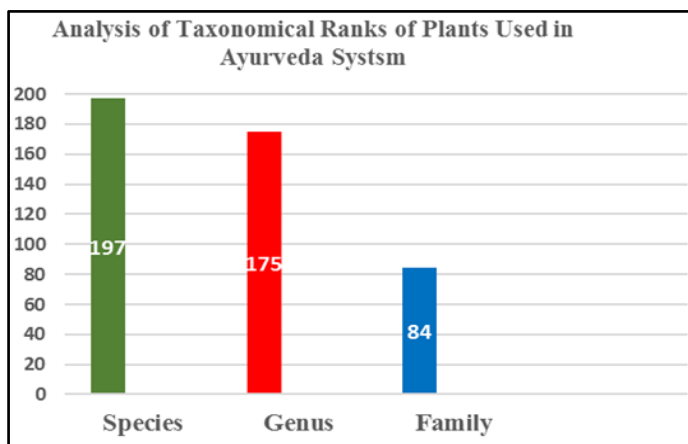


Fig 1: Taxonomical ranks of plants used in Ayurveda system with respect to number of species in the study area

The study also revealed that some of the species are common and engaged in cultivation practices among them some of the species are *Alpinia galanga* Sw., *Annona squamosa* L., *Anacardium occidentale* L., *Artocarpus heterophyllus* Lam., *Brassica juncea* L., *Carica papaya* L., *Coffea arabica* L. *Citrus limon* (L.) Burm.f., *Curcuma longa* L., *Gossypium herbaceum* L., *Lablab purpureus* (L.) Sweet, *Mangifera indica* L., *Momordica charantia* L. *Moringa pterigosperma* Gaertn., *Phyllanthus emblica* L., *Piper nigrum* L., *Psidium guajava* L., *Solanum nigrum* L., *Ricinus communis* L. *Solanum nigrum* L. and *Tamarindus indica* L., are found in different part of the study area. More over 21 species are falls in sporadic distribution restricted their distribution to particular areas, 3 species are vulnerable distribution, 6 species are under rare distribution which are very much restricted their distribution in the study area and 1 species is in endangered category respectively,

besides the study also revealed that 7 species are represents as endemic species of the Southern Western Ghats of the Coimbatore district, Tamil Nadu (Fig.3).

CONCLUSION

The herbal medicines are even today plays an important role in the indigenous medicinal systems. Many of the potential medicinal plants are under threat to become rare and endangered due to various external factors like habitat destructions, deforestations, anthropogenic activities, urbanization and over exploitation of medicinal plants. In order to protect such potential medicinal plants for future generation the conservation and propagation activities are to be taken up seriously with modern agronomical techniques to protect the important medicinal plants of our national heritage from the path of depletion.

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