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## Diversity of Unani Medicinal Plants in Southern Western Ghats of Coimbatore District, Tamil Nadu, India

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### ABSTRACT

The Unani system of medicine owes its origin in Greece and it was developed by Arabs in to an elaborated medical sciences. The principal source of drugs in Unani system of medicine is plant origin drugs. A survey was conducted to study the diversity and status of Unani medicinal plants in the Southern Western Ghats of Coimbatore District, Tamil Nadu. The present paper deals with the 131 numbers of the Unani medicinal plants of 115 genera belonging to 64 families. Based on the distribution status of the Unani medicinal plants it is categorized as common, common and cultivated, vulnerable, rare, sporadic, and endangered. Those plants falls under the vulnerable, rare and endangered category 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 Unani system of medicine for the betterment of health care needs.

**Keywords:** Unani System, Western Ghats, Medicinal Plants, Coimbatore

### 1. 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 <sup>[1]</sup>. 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 <sup>[2]</sup>. About 427 ethnic communities and folk healers use around 8000 species of medicinal plants in different parts of India <sup>[3]</sup>. India is endowed with rich wealth of medicinal plants which are widely used by all section of peoples either directly as folk remedies or different indigenous system of medicine or indirectly in the pharmaceutical preparations of modern medicines <sup>[4]</sup>.

The growing demand of the herbal products in the domestic and global market also makes the use of ecosystem specific medicinal plants a livelihood strategy. At present India is experiencing great pressure on its, resources due to its fast growing population. During the past two decades the human activities on commercialization of plant based drugs and demand from the pharmaceutical industry for domestic needs and the export of herbal drugs leads scarcity of medicinal plants in forests and plains. This situation is aggravated due to the fact that there is no organized system for the cultivation of important medicinal plants. A large number of medicinal plants were identified and recorded from the southern region in the recent years. The utility and need of botanical exploration in the country is to identify and search the economically important medicinal plant which has to be propagated and conserved for future generation <sup>[5]</sup>. A comprehensive account on the plain flora of Coimbatore district was published <sup>[6]</sup>. Similar works was done in the Sothern Western Ghats of Kerala <sup>[7, 8]</sup>. Despite intense efforts on exploration and survey activities on medicinal plants still the knowledge's in the traditional system remain unexplored.

The Unani system of medicine pioneered in Greece and was developed by Arabs in to an elaborate medical science based on the frame work of teaching of Buqrat (Hippocrates) and Jalinoos (Galen). Since that time Unani medicine has been known as Greco-Arab Medicine. The

World Health Organization (WHO) has recognized the Unani system of Medicine as an alternative system to cater the health care needs of human population. The principal source of drugs in the Unani system of medicine are plant origin drugs, Animal origin drugs and Mineral origin drugs. Crude drugs when used one at a time is called Ilaj bil Muftrad (treatment by single drug), when two or more than two drugs are combined together it is called Ilaj bil Murakkabat (treatment by compound drugs). Various drug formulations are used in the Unani system medicine for different ailments<sup>[9]</sup>. The Central Council for Research in Unani Medicine, New Delhi is continuously involved in ethno-botanical surveys through Survey and Cultivation of Medicinal Plants Programme by its Regional Institutes throughout India particularly tribal dominated areas of Andhra Pradesh, Tamil Nadu, Bihar, Jammu & Kashmir, Madhya Pradesh, Karnataka and Utter Pradesh. Accordingly the Southern Western Ghats region of Coimbatore district, Tamil Nadu was surveyed to study the diversity and status of Unani Medicinal Plants and to carry out the research activities in the clinical research and drug standardization research of the Unani

system of medicine.

## 2. 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, Siruvanihills in Boluvampatti range, Mulli, Pillur hills in the Karamadai range and Gopanari and Anaikatti forest areas in the Periyayanayakanpalyam range were surveyed. Similarly in the Anamalai Tiger Reserve (Indira Gandhi Wildlife Sanctuary) falls in the Western Ghats of Coimbatore district is also surveyed. It is located mainly in the Valparai Taluk and extending its portion to Pollachi and Udumalpet Taluk of Coimbatore district. It is 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 Varagaliar, 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
	Periyayanayakanpalayam	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

## 3. 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 2010-2013 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 15 genera belonging to 64 families are discussed in the present paper with their taxonomical

identification and diversity status. Among this some of the Unani medicinal plants and field activities are exemplified [Fig. 1-8]. The botanical identity of all the plant species are identified through modern floras<sup>[10-13]</sup> 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 family, Unani name, habit and their 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:** Diversity Status of Unani Medicinal Plants in Southern Western Ghats of Coimbatore District, Tamil Nadu, India.

S. No	Botanical Name Collection No.	Family	Vernacular Name	Unani Name	Habit	Status
1	<i>Abrus precatorius</i> L. (RRIUM, CH-8611)	Fabaceae	Kundumani	Gungchi	Twiner	V
2	<i>Abutilon indicum</i> (L.) Sweet (RRIUM, CH-8511)	Malvaceae	Thuthi	Kanghi	Shrub	C
3	<i>Acacia sinuata</i> (Lour.) Merr.(RRIUM, CH-10955)	Mimosaceae	Shikakai	Kilkar	Cl.Shrub	S
4	<i>Acacia nilotica</i> (L.) Willd. ex Del. (RRIUM, CH-10754)	Mimosaceae	Karuvalam	Babul	Tree	C

5	<i>Acalypha indica</i> L. (RRIUM, CH-11011)	Euphorbiaceae	Kuppaimeni	Kuppi	Herb	C
6	<i>Achyranthes aspera</i> L. (RRIUM, CH-8491)	Amaranthaceae	Nayuruvi	Chirchita	Herb	C
7	<i>Aegle marmelos</i> (L.) Corr. (RRIUM, CH-11075)	Rutaceae	Vilvam	Belgiri	Tree	V
8	<i>Aerva lanata</i> (L.) A. Juss. Ex Schult. (RRIUM, CH-11053)	Amaranthaceae	Poolaipoo	Bisheributi	Herb	C
9	<i>Alangium salvifolium</i> (L.f.) Wang. (RRIUM, CH-8726)	Alangiaceae	Alinji	Ankol	Tree	R
10	<i>Alstonias cholaris</i> R.Br. (RRIUM, CH-8590)	Apocynaceae	Ezhilaipalai	Kashim	Tree	S
11	<i>Amaranthus spinosus</i> L. (RRIUM, CH-8572)	Amaranthaceae	Mullukeerai	Chauli Khardar	Herb	C
12	<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees (RRIUM, CH-10888)	Acanthaceae	Nilavembu	Kalmegh	Herb	R
13	<i>Anacardium occidentale</i> L. (RRIUM, CH-11032)	Anacardiaceae	Mundhri	Kaju	Tree	C/C
14	<i>Annona squamosa</i> L. (RRIUM, CH-8848)	Annonaceae	Seetha	Sharifa	Tree	C/C
15	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill. & Perr. (RRIUM, CH-8471)	Combretaceae	Vekkali	Gul-e-Dhawa	Tree	S
16	<i>Argemone mexicana</i> L. (RRIUM, CH-8561)	Papavaraceae	Naikadugu	Satyanasi	Herb	C
17	<i>Aristolochia indica</i> L. (RRIUM, CH-8689)	Aristolochiaceae	Perumarunthu	Zarawand	Twiner	R
18	<i>Artocarpus heterophyllus</i> Lam. (RRIUM, CH-8768)	Moraceae	Pala	Kathal	Tree	C/C
19	<i>Asparagus racemosus</i> Willd. (RRIUM, CH-8682)	Liliaceae	Thaneervitankz hangu	Satawar	Climber	R
20	<i>Azadirachta indica</i> A. Juss. (RRIUM, CH-8617)	Meliaceae	Veppam	Neem	Tree	C
21	<i>Bauhinia variegata</i> L. (RRIUM, CH-8574)	Caesalpinaceae	Mantharai	Kachnal	Tree	C
22	<i>Bauhinia racemosa</i> Lam. (RRIUM, CH-10736)	Caesalpinaceae	Aathi	Kachnal	Tree	C
23	<i>Boerhaavia diffusa</i> L. (RRIUM, CH-8698)	Nyctaginaceae	Mukkarattai	Handakaku	Herb	C
24	<i>Bombax ceiba</i> L. (RRIUM, CH-10984)	Bombacaceae	Elavam	Mochras Sainbhal	Tree	C
25	<i>Brassica juncea</i> L. (RRIUM, CH-10863)	Brassicaceae	Kaduku	Rai	Herb	C/C
26	<i>Buchanania lanzan</i> Spr. (RRIUM, CH-8542)	Anacardiaceae	Kattumunthri	Chironji	Tree	R
27	<i>Caesalpinia crista</i> (L.) Roxb. (RRIUM, CH-8499)	Caesalpinaceae	Kazhachikai	Karanjawa	Shrub	R

28	<i>Cleome viscosa</i> L. (RRIUM, CH-11069)	Cleomaceae	Naivelai	Bantakalan	Herb	C
29	<i>Caesalpinia sappan</i> L. (RRIUM, CH-10931)	Caesalpinaceae	Pathimugam	Patang	Tree	V
30	<i>Calotropis gigantea</i> (L.) R.Br. ex Ait. (RRIUM, CH-8592)	Asclepiadeceae	Errukku	Madar	Herb	C
31	<i>Canna indica</i> L. (RRIUM, CH-10963)	Canaceae	Kalvalai	Sabbajaya	Shrub	C
32	<i>Cardiospermum halicacabum</i> L. (RRIUM, CH-8444)	Sapindaceae	Mudakathan	QilQil	Climber	C
33	<i>Careya arborea</i> Roxb. (RRIUM, CH-8789)	Barringtoniaceae	Ayma	Baik umbi	Tree	S
34	<i>Crissa carandas</i> L. (RRIUM, CH-8586)	Apocynaceae	Kila	Karondah	Shrub	C
35	<i>Cassia alata</i> L. (RRIUM, CH-10757)	Caesalpinaceae	Seemaiagathi	Dadmardan	Shrub	C
36	<i>Cassia auriculata</i> L. (RRIUM, CH-8565)	Caesalpinaceae	Avaram	Tarwar	Shrub	C
37	<i>Cassia fistula</i> L. (RRIUM, CH-8454)	Caesalpinaceae	Konnai	Amaltas	Tree	C
38	<i>Cassia occidentalis</i> L. (RRIUM, CH 8509)	Fabaceae	Thagarai	Kasondi	Herb	C
39	<i>Cassia tora</i> L. (RRIUM, CH8589)	Caesalpinaceae	Thaarai	Panwar	Herb	C
40	<i>Catharanthus roseus</i> (L.) G. Don. (RRIUM, CH-8496)	Apocynaceae	Nithyakalyani	Sadabahar	Herb	C
41	<i>Catunaregam spinosa</i> (Thumb.) Tiru. (RRIUM, CH-8494)	Rubiaceae	Karai	Mayeenphal	Tree	C
42	<i>Centella asiatica</i> (L.) Urban (RRIUM, CH-8812)	Apiaceae	Vallarai	Brahmi	Herb	C
43	<i>Chenopodium album</i> L. (RRIUM, CH-10887)	Chenopodiaceae	Chakaravarthi Keerai	Bathua	Herb	C
44	<i>Cichorium intybus</i> L. (RRIUM, CH-8803)	Asteraceae	Kasini	Kasni	Herb	S
45	<i>Cinnamomum verum</i> Presl. (RRIUM, CH-8802)	Lauraceae	Elavangapattai	Darchini	Tree	S
46	<i>Cissus quadrangularis</i> L. (RRIUM, CH-10763)	Vitaceae	Pirandai	Hadjora	Herb	C
47	<i>Citrullus colocynthis</i> Sch.(RRIUM, CH-8377)	Cucurbitaceae	Athukumatti	Hanzal	Creeper	S
48	<i>Citrus limon</i> (L.) Burm.f. (RRIUM, CH-8527)	Rutaceae	Ezhumichai	Lemun Kaghzi	Tree	C/C
49	<i>Clerodendrum viscosum</i> Vent. (RRIUM, CH-10770)	Verbenaceae	Vattakkani	Boopali	Shrub	C
50	<i>Clitoria ternatea</i> L. (RRIUM, CH-8479)	Fabaceae	Sankupuspam	Mazaryoon	Climber	C
51	<i>Coccinia grandis</i> (L.) J. Voigt (RRIUM, CH-10991)	Cucurbitaceae	Kovai	Kanduri	Climber	C

52	<i>Costus speciosus</i> (Koen.) J. E. Smith (RRIUM, CH-10812)	Costaceae	Kottam	Kostum	Herb	V
53	<i>Curculigo orchioides</i> Gaert. (RRIUM, CH-8772)	Hypoxidaceae	Nilapanai	Musli Siyah	Herb	R
54	<i>Curcuma longa</i> L. (RRIUM, CH-8609)	Zingiberaceae	Manjal	Zardchob	Herb	C/C
55	<i>Cuscuta reflexa</i> Roxb. (RRIUM, CH-8451)	Convolvulaceae	Ottuchedi	Kasoos	Parasitic Herb	C
56	<i>Dalbergiasissoo</i> Roxb ex DC. (RRIUM, CH-10917)	Fabaceae	Sisoo	Sheesham	Tree	R
57	<i>Datura metal</i> L. (RRIUM, CH-8570)	Solanaceae	Oomathai	Jaoz Masil	Herb	C
58	<i>Datura fastusa</i> L. (RRIUM, CH-8601)	Solanaceae	Karuoomathai	Dhatura Siyah	Herb	C
59	<i>Dodonaea viscosa</i> (L.) Jac. (RRIUM, CH-8514)	Sapindaceae	Virali	Jungli Anar	Shrub	S
60	<i>Eclipta prostrata</i> (L.) Mant. (RRIUM, CH-8722)	Ateraceae	Karisalnkanni	Bhangra	Herb	C
61	<i>Euphorbia hirta</i> L. (RRIUM, CH-8524)	Euphorbiaceae	Ammanpacharis i	Dudhi Kalan	Herb	C
62	<i>Evolvulus alsinoides</i> (L.) L. (RRIUM, CH-10741)	Convolvulaceae	Vishnukaranthai	Sankhavli	Herb	V
63	<i>Ficus benghalensis</i> L. (RRIUM, CH-8533)	Moraceae	Alam	Bargad	Tree	C
64	<i>Ficus hispida</i> L. f. (RRIUM, CH-8821)	Moraceae	Peiatthi	Anjeer Ddashti	Tree	C
65	<i>Ficus racemosa</i> L. (RRIUM, CH-8359)	Moraceae	Atthi	Gular	Tree	C
66	<i>Gloriosa superba</i> L. (RRIUM, CH-8622)	Liliaceae	Senkanthal	Muleem	Herb	V
67	<i>Gmelina asiatica</i> L. (RRIUM, CH-8344)	Verbenaceae	Kumil	Badhara	Shrub	S
68	<i>Gymnema sylvestre</i> R. Br. (RRIUM, CH-8529)	Asclpiadaceae	Sarkaraikolli	Gurmar Buti	Climber	V
69	<i>Haldina cordifolia</i> (Roxb.) Rids. (RRIUM, CH-8608)	Rubiaceae	Manjakadambu	Haldu	Tree	V
70	<i>Helicteres isora</i> L. (RRIUM, CH-8493)	Sterculiaceae	Edampuri Valam puri	Marorphali	Tree	C
71	<i>Hemidemus indicus</i> (L.) Schult. (RRIUM, CH-10785)	Periplocaceae	Nannari	Ushba-e-Hindi	Twiner	C
72	<i>Hibiscus rosa-sinensis</i> L. (RRIUM, CH-8442)	Malvaceae	Semparuthi	Gurhal	Herb	C
73	<i>Hydnocarpus pentandra</i> (Buch-Ham.) Oken (RRIUM, CH-8791)	Flacourtiaceae	Maravetti	Chal Mograh	Tree	R
74	<i>Hygrophylla auriculata</i> (Schum.) Heine (RRIUM, CH-8568)	Acanthaceae	Neermulli	Talmakhana	Herb	C
75	<i>Indigofera tinctoria</i> L. (RRIUM, CH-8825)	Fabaceae	Avuri	Neel	Herb	S

76	<i>Ipomoea nil</i> (L.) Roth(RRIUM, CH-8828)	Convolvulaceae	Kalattan	Kaladana	Climber	C
77	<i>Jatropha curcas</i> L.(RRIUM, CH-10715)	Euphorbiaceae	Kattamanaku	Baghrenda	Shrub	C
78	<i>Justicia adhatoda</i> Medick.(RRIUM, CH-10936)	Acanthaceae	Adathoda	Arusa	Shrub	C
79	<i>Lablab purpureus</i> (L.) Sweet (RRIUM, CH-8567)	Fabaceae	Thuvarai	Lab Lab	Twiner	C
80	<i>Lawsonia inermis</i> L. (RRIUM, CH-10940)	Lythraceae	Maruthani	Hina	Shrub	C
81	<i>Leonotis nepetifolia</i> (L.) R.Br. (RRIUM, CH-8668)	Lamiaceae	Adukkuthumbai	Dipmal	Herb	C
82	<i>Leucas aspera</i> (Willd.) Link (RRIUM, CH-10749)	Lamiaceae	Thumbai	Chota Halkusa	Herb	C
83	<i>Limonia acidissima</i> L. (RRIUM, CH-8564)	Rutaceae	Vilam	Kaith	Tree	R
84	<i>Mangifera indica</i> L. (RRIUM, CH-11058)	Anacardiaceae	Mamaram	Aam	Tree	C/C
85	<i>Martynia annua</i> L. (RRIUM, CH-(10703)	Martyniaceae	Panjanarayan	Kalabichua	Herb	C
86	<i>Mallotus philipensis</i> (Lam.) Muell.-Arg. (RRIUM, CH-8441)	Euphorbiaceae	Senthuram	Kamila	Tree	C
87	<i>Mimosa pudica</i> L. (RRIUM, CH-8456)	Mimosaceae	Thattalsurungi	Lajjalu	Herb	C
88	<i>Mimosops elangi</i> L. (RRIUM, CH-8651)	Sapotaceae	Magilam	Mulsari	Tree	R
89	<i>Mirabilis jalapa</i> L. (RRIUM, CH-8458)	Nyctaginaceae	Anthimalli	Gul-e-Abbas	Herb	C
90	<i>Momordica charantia</i> L. (RRIUM, CH-8552)	Cucurbitaceae	Pavai	Karaela	Climber	C/C
91	<i>Morus alba</i> L. (RRIUM, CH-10821)	Moraceae	Kambili	Toot Shireen	Tree	S
92	<i>Moringa pterygosperma</i> Gaertn. (RRIUM, CH-10993)	Moringaceae	Murungai	Sahajana	Tree	C/C
93	<i>Mucuna pruriens</i> (L.) DC. (RRIUM, CH-10966)	Fabaceae	Poonaikali	Konch	Twiner	R
94	<i>Nerium oleander</i> L. (RRIUM, CH-8539)	Apocynaceae	Arali	Kaner	Shrub	C
95	<i>Ocimum basilicum</i> L. (RRIUM, CH-11025)	Lamiaceae	Tirunetrupachi	Rehan	Herb	C
96	<i>Pedaliium murex</i> L. (RRIUM, CH-(10700)	Pedaliaceae	Perunerinjil	Gokhru Kalan	Herb	C
97	<i>Pergularia daemia</i> (For.) Chiov. (RRIUM, CH-8671)	Asclepiadaceae	Veliparuthi	Mendhasingi	Climber	C
98	<i>Phyllanthus amarus</i> Schum. & Thonn. (RRIUM, CH-8523)	Euphorbiaceae	Kizhanelli	Bhui Aamla	Herb	C
99	<i>Phyllanthus emblica</i> L. (RRIUM, CH-8873)	Euphorbiaceae	Nelli	Aamla	Tree	C

100	<i>Physalis minima</i> L. (RRIUM, CH-10820)	Solanaceae	Potli	Kaknaj	Herb	C
101	<i>Piper nigrum</i> L. (RRIUM, CH-8452)	Piperaceae	Kurumilagu	Filfil Siyah	Creeper	C/C
102	<i>Plantago ovata</i> Forssk. (RRIUM, CH-10828)	Plantaginaceae	Isapgol	Isapghol	Herb	R
103	<i>Plumbago zeylanica</i> L. (RRIUM, CH-8457)	Plumbaginaceae	Kodiveli	Sheetraj Hindi	Herb	C
104	<i>Pongamia pinnata</i> (L.) Pierre (RRIUM, CH-8616)	Fabaceae	Pungan	Karanj	Tree	C
105	<i>Portulaca oleracea</i> L. (RRIUM, CH-8725)	Portulacaceae	Paruppukeerai	Khurfa	Herb	C
106	<i>Psidium gujava</i> L. (RRIUM, CH-10771)	Myrtaceae	Koiya	Amrood	Tree	C
107	<i>Pterocarpus marsupium</i> . Roxb. (RRIUM, CH-8755)	Fabaceae	Vengai	Bijasar	Tree	S
108	<i>Ricinus communis</i> L. (RRIUM, CH-8563)	Euphorbiaceae	Amankku	Arand, Bedanjeer	Shrub	C
109	<i>Rubia cordifolia</i> L. (RRIUM, CH-8447)	Rubiaceae	Manjitti	Majeeth	Climber	V
110	<i>Ruta chalepensis</i> L. (RRIUM, CH-10868)	Rutaceae	Aruvadh	Sudaab	Herb	R
111	<i>Santalum album</i> L. (RRIUM, CH-8652)	Santalaceae	Santhanam	Sandal Safaid	Tree	E
112	<i>Sapindus emarginatus</i> Vahl (RRIUM, CH-8505)	Sapindaceae	Pochai	Reetha	Tree	S
113	<i>Sida rhombifolia</i> L. (RRIUM, CH-10713)	Malvaceae	Kurunthotti	Bariyala	Herb	C
114	<i>Solanum nigrum</i> L. (RRIUM, CH-10861)	Solanaceae	Manathakali	Mako	Herb	C/C
115	<i>Solanum virginianum</i> L. (RRIUM, CH-8790)	Solanaceae	Kandamkathiri	Katai Khurd	Herb	C
116	<i>Strychnos nux-vomica</i> L. (RRIUM, CH-8566)	Loganiaceae	Etti	Kuchla	Tree	S
117	<i>Strychnos potatorum</i> L. (RRIUM, CH-8532)	Loganiaceae	Thetankottai	Nirmali	Tree	R
118	<i>Syzygium cumini</i> (L.) Skeels (RRIUM, CH-8740)	Myrtaceae	Naval	Jamun	Tree	C
119	<i>Tamarindus indica</i> L. (RRIUM, CH-8445)	Caesalpiniaceae	Puliy	Tamar Hindi	Tree	C/C
120	<i>Tephrosia purpurea</i> (L.) Pers. (RRIUM, CH-8482)	Fabaceae	Kolinji	Sarphuka	Herb	C
121	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wt. & Arn. (RRIUM, CH-10960)	Combretaceae	Neermathi	Arjun	Tree	S
122	<i>Terminalia bellirica</i> Roxb. (RRIUM, CH-8349)	Combretaceae	Thanri	Balela	Tree	S

123	<i>Terminalia catappa</i> L. (RRIUM, CH-8349)	Combretaceae	Badam	Janglibadam	Tree	C
124	<i>Terminalia chebula</i> Retz. (RRIUM, CH-8453)	Combretaceae	Kadukkai	Halela	Tree	S
125	<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook.f. &Thoms. (RRIUM, CH-8602)	Menispermaceae	Seenthil	Gilo	Climber	C
126	<i>Toddalia asiatica</i> (L.) Lam. (RRIUM, CH-8490)	Rutaceae	Milgaranai	Janglimirch	Liane	C
127	<i>Tribulus terrestris</i> L. (RRIUM, CH-10854)	Zygophyllaceae	Nerinji	Khar-e-Khasak	Herb	C
128	<i>Vitex negundo</i> L. (RRIUM, CH-11013)	Verbenaceae	Nochi	Sambhalu	Tree	C
129	<i>Withania somnifera</i> Dunal (RRIUM, CH-8427)	Solanaceae	Amukkira	Asgand	Herb	R
130	<i>Wrightia tinctoria</i> L. (RRIUM, CH-8465)	Apocynaceae	Veppalai	Inderjo Sheerin	Tree	C
131	<i>Zizyphus mauritiana</i> Lam. (RRIUM, CH-8726)	Rhamnaceae	Elanthai	Ber	Tree	C

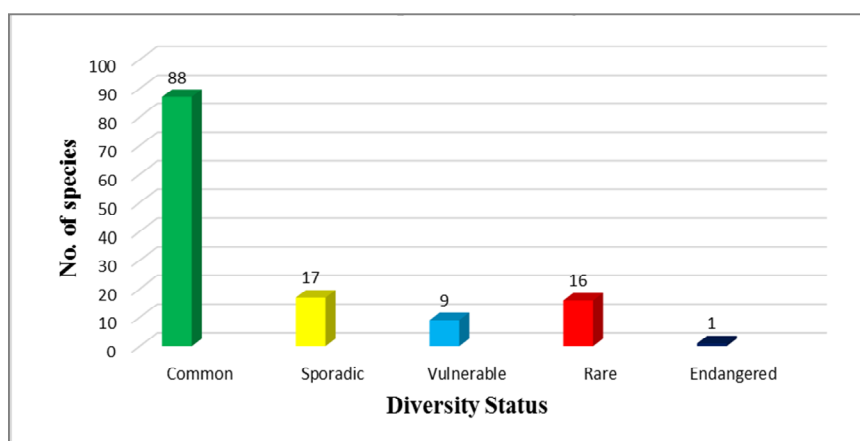


Fig 1: Analysis of Diversity of Unani Medicinal Plants with respect to no. of species in the study.

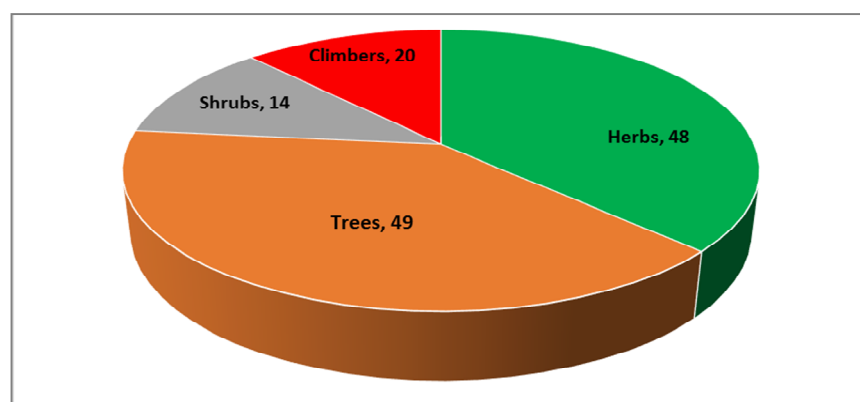


Fig 2: Analysis of Unani Medicinal Plants life forms with respect to no. of species in the study.



**Exploration of Unani Medicinal Plants in the Western Ghats of Coimbatore District**



**Fig 3 & 4:** Survey team identifying Unani medicinal plants during the field work.



**Fig 5:** Bijasar (*Pterocarpus marsupium* Roxb.)



**Fig 6:** Sheetraj Hindi (*Plumbago zeylanica* L.)



**Fig 7:** Dudhi Kalan (*Euphorbia hirta* L.)



**Fig 8:** Marorphali (*Helicteres isora* L.)



**Fig 9:** Ghunghchi (*Abrus precatorius* L.)



**Fig 10:** Musli Siyah (*Curculigo orchoides* Gaertn.)

#### 4. Result and Discussion

In the present study 112 medicinal plants from Coimbatore forest division and 240 medicinal plants from the Anamalai Tiger Reserve (Indira Gandhi Wild life Sanctuary) of Coimbatore district has been collected and identified. Among this some of the 131 Unani medicinal plants (Table-1) were collected and analyzed their diversity status. In which 88 species are common, 12 species common and engaged in cultivation activities species like *Anacardium occidentale* L, *Annona squamosa* L, *Artocarpus heterophyllus*, *Citrus limon* (L.) Burm. f, *Curcuma longa* L., *Mangifera indica* L., *Momordica charantia* L., *Moringa pterygosperma* Gaertn., *Piper nigrum* L., *Solanum nigrum* L., and *Tamarindus indica* L. are found in cultivation activities in some part of the study area. More over 17 species are falls in sporadic distribution which is very much restricted their distribution to particular area, 9 species are vulnerable, 16 species are rare and 1 species is endangered category respectively [Fig.1].

In the family level Fabaceae is the largest family with 10 species, followed by Caesalpiniaceae (9 species), Euphorbiaceae (7 species), Apocynaceae (5 species), Moraceae (5 species) Rutaceae (5 species), Solanaceae (5 species), Amaranthaceae (3 species), Anacardiaceae (3 species), Mimosaceae (3 species), and other families each with 1 or 2 species respectively. The life forms of the identified Unani medicinal plants were analyzed and found that there are 49 trees, 48 herbs, 14 shrubs, 20 climbers and twiners, including 1 parasitic herb was documented [Fig.2].

The Unani medicinal plants used in the treatment of various ailments like Arthritis, Boils, Bleeding Hemorrhoids, Diarrhea, Dysentery, Gastric Ulcer, Head ache, Inflammation, Skin diseases, Stomach disorders and Urinary diseases etc. are falls under vulnerable, rare and endangered category due to various external factors. These wild medicinal plants species which are available in the natural sources are recommended to the germplasm collection and to take up conservation and propagation activities seriously. Because due to various external factors many of the valuable plant species are under threat to become rare, endangered and some are on the verge of extinction. Around 1000 plant species are under threat in different bio-geographic regions of the country. It is concluded that these wild plant species should be conserved seriously and to be encouraged for large scale cultivation and to develop many herbal gardens for medicinal plants in the suitable areas adopting the modern agronomical techniques.

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