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## Diversity of Unani medicinal plants of northwest Gujarat

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### Abstract

A survey was conducted to study the diversity and traditional knowledge of plant species in Northwest Gujarat during 2020-2021 and total 137 plant species have been documented. Out of these 84 plants were found reference in Unani system of medicine, can be placed under 73 genera representing to 49 families are discussed in the present paper. The present study is based on the literature survey from various sources and it provides a comprehensive knowledge about the use of Unani plants and their major ailments used for the treatment of various diseases by various tribal communities from the state. Moreover, it is enumerated along with their Botanical name, Family, Folk/Local name, Unani name, Ayurveda name and Siddha name. Study area is famous for its vast biodiversity of tropical deciduous vegetation especially for diversity of ethno medicinal plants as well as a traditional medicine system. But, reference to documentation on traditional medicinal practices is less documented specific to Unani system is not much done from the study area. Therefore, in the present review; Emphasis has also been given on Unani system plants during the documentation and inventorization. This paper explains in brief the concept of Phyto diversity & economic advantage. The present study reveals the status of Unani plants, ethno-medicinal flora and its importance. There is an urgent need to create awareness among rural and urban population to highlight the importance of Traditional knowledge and conserving biodiversity.

**Keywords:** Diversity, ethno medicinal, Gujarat, Unani medicinal plants

### Introduction

It is a well-known fact that Traditional Systems of medicines always played an important role in meeting the global health care needs at present and shall play major role in future also. The system of medicines which are considered to be Indian in origin or the systems of medicine, which have come to India from outside and got assimilated in to Indian culture are known as Indian Systems of Medicine [1]. India has the unique distinction of having six recognized systems of medicine i.e. Ayurveda, Siddha, Unani, Yoga, Naturopathy and Homoeopathy and covered under the AYUSH ministry [2]. In recent years due to pandemic as well as other initiative people have started collecting and processing some known and unknown plant resources to overcome the pathogenicity and cure the infection. This has brought our attention towards the natural resources from the North West Gujarat region to be assessed for the documentation and inventorization of this natural wealth.

Maximum rural populations of the world including India are mostly dependent on traditional medicinal systems for their healthcare and cure. They rely on medicinal plants because of their effectiveness and cultural preferences in addition to absence of modern healthcare alternatives [3]. Most of the traditional systems of India including Ayurveda have their roots in folk medicine. However, what distinguishes Ayurveda from other systems is that it has a well-defined conceptual framework that is consistent throughout the ages [1,4]. Siddha system of medicine is practiced in some parts of South India especially in the state of Tamil Nadu and is providing preventive, promotive, curative, rejuvenative and rehabilitative healthcare by adopting scientific and holistic approach [5]. It has close affinity to Ayurveda yet it maintains a distinctive identity of its own. This system has come to be closely identified with Tamil civilization.

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 is plant origin drugs, Animal origin drugs and Mineral origin drugs [6]. The Unani pharmacopoeia has a rich armamentarium of natural drugs, consisting of mostly herbal in addition to materials of animal, mineral and marine origin.

According to the basic principles of Unani the body is made up of four basic elements i.e. Earth, Air, Water and, Fire which have different Temperaments i. e. Cold, Hot, Wet, and Dry. They give rise, through mixing and interaction, to new entities<sup>[2, 7]</sup>. Unani system of health care has its origin in Greece. It is believed to have been established by the great physician and philosopher- Hippocrates (460-377 BC), Galen (130-201 AD).

Northwest Gujarat is one of the rich and unique biodiversity areas in western India<sup>[8]</sup>. This ancient region of India has its distinctive place in the history of mankind and is a precious treasure of plants. Forest vegetation is diverse and specific due to varied topography and bioclimatic conditions. Most indigenous and local communities are situated in most biological rich and diverse areas. For them this natural environment is a way of life and a part of their cultural existence. The forest of this district is rich useful as sustain the many primitive Tribes like Bhil, Dholi, Bhil, Bhil Garasia, Dungari Garasia and vasava. These indigenous communities are repository of traditional knowledge on conservation and sustainable utilization. Many phytochemical based medicines and cosmetics are derived from the knowledge of properties of certain plants. Therefore, in lieu of the above knowledge this region requires attention from new angle.

Work on Indian traditional medicinal system is quite less documented by earlier attempts in ethno medicinal aspects of the selected study area. The northern part of the state has altitudinal variations so wide range of climatic zones are available here, which favours the profuse growth of diversified and rich vegetation which also has a number of raw drugs described in traditional medicinal manuscripts. The floristic work and ethnobotanical studies on different localities of North Gujarat have been made by Saxton and Sedgwick<sup>[9]</sup>, Yogi<sup>[10]</sup>, Patel<sup>[11]</sup>, Jangid<sup>[12]</sup> and Mehta<sup>[13]</sup>. Floristic and documentation on ethnobotanical understanding was done formerly by Pujani<sup>[14]</sup> for Sabarkantha district, by Sidana *et al.*,<sup>[15]</sup> for Vijaynagar forest and Dholwani forest. Danta forest by Patel<sup>[16]</sup>, Ambaji forest by Patel<sup>[17]</sup> to understand the use of plant species. Traditional Ethnobotanical work of Aravalli in Banaskantha district is carried out by Ant<sup>[18]</sup>. Punjani & Pandey<sup>[19]</sup>, Patel and Patel<sup>[20]</sup> and Chaudhary *et al.*,<sup>[21]</sup> has also deliberated the Ethno botanical aspects of some plants in general and some selected areas of North Gujarat. Patel and Desai<sup>[22]</sup> have focused their studies on Fruit and seed Drugs only; while, Gadhvi and Modi<sup>[23]</sup> and Maru and Patel<sup>[24]</sup> have studied the Traditional Ethno medicinal plants used by Tribal communities.

In terms of TKDL, specific work on Unani system is little bit done from Gujarat. Azami<sup>[25, 26]</sup> described basic concept and research methods for the history of Unani medicine. Meena *et al.*,<sup>[27]</sup> has focused their study on Evaluation of a Unani Compound Formulation – Majoon-e- Sandal. Kumar<sup>[28]</sup> has given comparative account of folk medicinal plants of various medicinal systems. Murugeswaran<sup>[29]</sup> has reported medicinal plants which are used in the Unani system. Chanda<sup>[30]</sup> has focused their studies on Importance of Pharmacognostic study of Medicinal Plants. Tiwari *et al.*,<sup>[31]</sup> has studied scientific evaluation & Standardization of the Ayurvedic compound formulation. Mathad *et al.*,<sup>[32]</sup> has

studied phytochemical studies of two selected Unani Medicinal Plants of Kalaburagi Region, Karnataka. That's for emphasis has been given more on Unani medicinal system.

### Methodology

Study area includes 4 districts of North West Gujarat; Sabarkantha, Aravalli, Mahisagar and Dahod. Aravalli hill ranges run along the North Gujarat state and extends in Rajasthan also. In this survey, numbers of medicinal plants were explored and emphasis given on Unani plants which are very much useful for treatment of various diseases. Plant names have been arranged alphabetically and for correct nomenclature have been done after following the recent nomenclatural changes. Plant names are enumerated with their Botanical name, Family, Folk/Local name, Unani name, Ayurveda name and Siddha name. In addition, we have given information on traditional knowledge of plants and part of the plants used in various diseases or major ailments. The collected data were corroborated through literature survey of Indian traditional medicinal systems. It also includes various research papers published on traditional medicinal system and ethnobotanical plants used from the selected study area. Most of the Unani names are taken from earlier published literatures (Hakeem, Ali, Anonymous)<sup>[33, 34, 35]</sup>. A checklist has been prepared after comparing with the existing literatures of Unani System of Medicine and especially with the list of medicinal plants used in various system of medicine. The collected information was substantiated with the existing information available in the literature Khare<sup>[36]</sup>, Gupta<sup>[37]</sup>, Handa<sup>[38]</sup> and Flora of Gujarat as well as Bombay presidency<sup>[39, 40]</sup>.

### Results

In our study, we have documented 137 species belonging to 65 families. We have mainly focused on Unani plant species. This was attempted to prepare a checklist of Unani medicinal plant species of Northwest Gujarat with reference to Phyto diversity and traditional knowledge. This is the preliminary list of Unani medicinal plants on the basis of comparative account of other traditional medicinal systems. The medicinal uses of plant species and the associated indigenous knowledge preserved in the local folklore. The data of Unani medicinal plants were collected from the area by visiting the Hakims and Vaidya's from number of villages and presented in Table 1. In the present study we have recorded 84 Unani plant species belonging to various families of Angiosperms. Among the dominant families, Fabaceae & Solanaceae represented with maximum number of species i.e. 5, followed by Asclepiadaceae, Apocynaceae, Asteraceae, Caesalpiniaceae and Moraceae with 4 species each; Euphorbiaceae represented with 3 species; Sterculiaceae, Combretaceae, Menispermaceae, Bombacaceae, Rutaceae and Rhamnaceae with 2 species each and remaining 35 Families were with single species (Fig. 1). Out of 49 Angiosperm's Families (73 genera), 44 Families (68 genera) belongs to Dicotyledonae and 5 Families (5 genera) belongs to Monocotyledonae. All collected species of plant have medicinal value and are being referred in Ayurveda, Unani and Siddha Systems of Medicine.

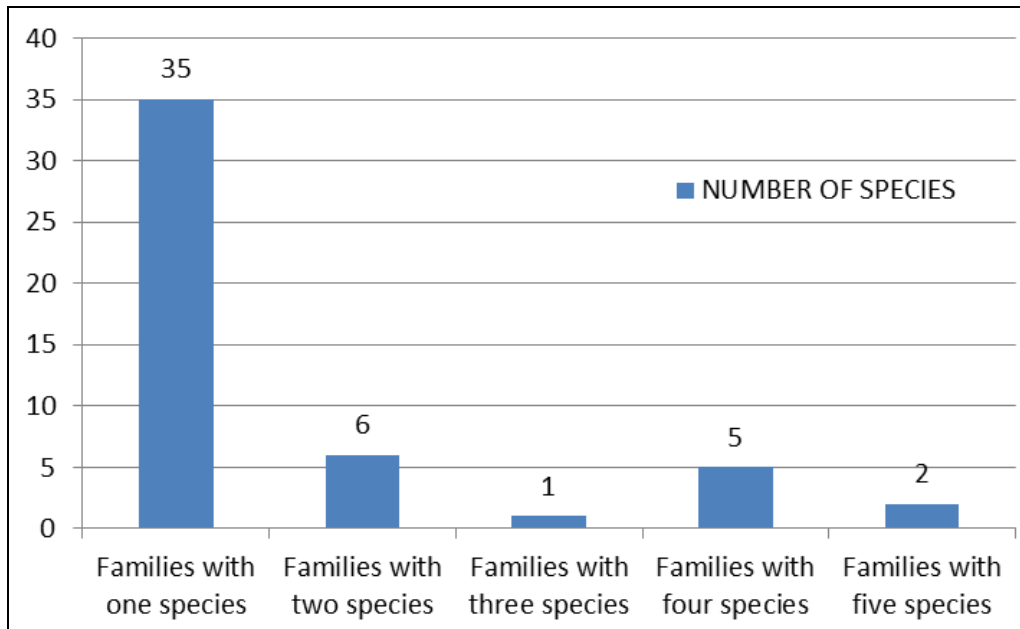
**Table 1:** Enumeration of Unani Medicinal Plants of Northwest Gujarat

Sr. No.	Plant Name	Family	Folk/local name	Unani name	Ayurveda name	Siddha name	Plant Part Used
1	<i>Abrus precatorius</i> L.	Fabaceae	Chirmiti, Ratti	Ghongchi	Gunjaa, Gunjaka	Kunri	Seeds
2	<i>Acacia catechu</i> (L.f) Willd.	Mimosaceae	Khair	Katthaa	Khadira	Karunkaali, Kalippakku, Kadiram, Katthakkaambu, Kaasukkatti	Wood and seeds
3	<i>Acacia leucophloea</i> Willd.	Mimosaceae	Safed Babuul, Safed Kikar, Renvaa	Kath Safed	Arimedaka, Vitakhadir	Valval, Velvayalam	Bark, seeds, leaves and Gum
4	<i>Acacia nilotica</i> (L.) Del.	Mimosaceae	Baval	Aqaaqia, Babuul, Kikar, Mughilaan, Samur	Babbuula	Karu-velamaram, Karuvelei, Velampisin	Stem bark, pods, seed oil, Gum
5	<i>Achyranthes aspera</i> L. var. <i>aspera</i>	Amaranthaceae	Puthkanda	Chirchitta, Latjeeraa	Apaamaarga, Chirchitaa	Naayuruvi	Whole Plant
6	<i>Adansonia digitata</i> L.	Bombacaceae	Gorakh Imli; Gorakh Chinchaa	Gorakh Imli	Ravanaamlikaa, Gorakshi	Papparpuli	Leaves, Flowers & Fruits
7	<i>Aegel marmelos</i> (L.) Corr.	Rutaceae	Bili	Belgiri (Bael)	Bilva, Kapitha	Vilvam, Koovilam	Root & Bark
8	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Araduso, Rukhdo	Neem Mitha	Aralu, Katvanga	Perru, Perumaruttu, Peruppi	Bark & Leaves
9	<i>Aloe vera</i> (L.) Burm. F.	Asphodelaceae	Aloe vera, Kuvarpaanthu	Gheekwaar, Sibr, Elva	Ghritkumari, Kumari	Kathalai	Leaves
10	<i>Annona squamosa</i> L.	Annonaceae	Anduri	Sharifaa	Gandagaatra	Sitaaphalam, Atta	Leaves seeds, ripe fruits & Unripe fruits
11	<i>Anogeissus latifolia</i> Wall. ex Bedd.	Combretaceae	Dhavado	Dhaawaa	Dhava	Namai, Vel-naga-maram, Vakkali	Gum
12	<i>Argemone Mexicana</i>	Papaveraceae	Darudi, Pilo dhaturo, Satyanashi	Satyaanaashi	Katuparni, Svamkshiri	Piramathandu, Kudiyotti	Seed, Leaf juice & Root
13	<i>Asparagus racemosus</i> Willd.	Asparagaceae	Satawari	Satawar	Shataavari, Shatmuuli	Thanneervittan kizhangu, Sataavari Kizhangu	Tuberous root
14	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Limdo	Azaad-Darakht-e-Hindi, Neem	Nimba, Nimbaka	Vemmu, Veppu, Veppan, Arulundi	Leaves, Bark & Seed Oil
15	<i>Bacopa monneri</i>	Scrophulariaceae	Jalaneem, Safed-Chammi	Ulasimang-aso	Braahmi, Aindri	Piramivazhukkai, Neerbrami	Whole Plant
16	<i>bahunia racemosa</i> Lam.	Caesalpiniaceae	Aapataa Kachnaala	Kachnal	Ashmantaka, Kanchini	Kokku mandarai	Bark, Leaves, Flowers & Seeds
17	<i>Balanites egyptica</i> (L.) Del.	Balanitaceae	Ingoro	Hingan, Hanguul	Ingudi, Angaar Vriksha	Nanjunda	Bark, Fruit, Seed & Seed Oil
18	<i>Bambusa arundinacea</i> (Retz.) Wild.	Poaceae	Baambu, Vaans	Tabasheer	Vansha, Kichaka	Moongil; Moongiluppu, (Bambo-manna.)	Leaves, Stem, Root & Bark
19	<i>Blumia eriantha</i> DC.	Asteraceae	Nirmudi	Kakarondaa	Kukundara (var.)	Kattumullangi, Narakkarandai	Leaves, oil
20	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Gadaha-purnaa	Itsit	Rakta-punarnavaa, Punarnavaa	Mookkirattai	Whole Plant
21	<i>Bombax ceiba</i> L.	Bombacaceae	Semar	Senbhal, Mochras, Tukhm-e-Sambhalu	Shaalmai, Raktapushpa	Mul Ilavam. Ielavampisin (gum)	Bark, Young root, gum, shoots, leaves
22	<i>Boswellia serrata</i> Roxb.	Burseraceae	Salai Guggul	Kundur	Shallaki, Susravaa	Parangisambirani, Kungli	Stem Fruit, Gum-Resin, and Oil
23	<i>Bryophyllum pinnatum</i> (Lam.) Oken.	Crassulaceae	Amar poi	Zakhm-e-Hayaat	Parnabija, Paashaanabhedha	Runakkalli	Leaves
24	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Tesu, Keshudo	Dhak (Pilas Papra), Samagh, Chunnia Gond, Kamarkas	Paalasha, Raktapushpaka	Palasam, Purasus	Bark, Leaves, Flowers, Seeds
25	<i>Caesalpinia crista</i> L.	Caesalpiniaceae	Kachka	Karanjawa	Lataakaranja	Kazharchikkaai	Root, Bark, leaves, Seeds, Seeds oil
26	<i>Cajanus cajan</i> (L.) Millsp.	Fabaceae	Tuver	Arhar	Aadhaki, Shanapushpikaa	Thuvarai	Root & Leaves
27	<i>Calotropis procera</i> (Ait.) R. Br.	Asclepiadaceae	Akado, Akad	Aakh, Madaar	Alarka, Arkaparna	Vellerukku, Erukku	Root, Leaves, Bark oil, Flowers, Seed oil
28	<i>Carica Papaya</i> L.	Caricaceae	Papaya	Papeeta	Erand-karkati, Papitaa	Pappaali, Pappayi	Leaves, Fruits & Seeds
29	<i>Carissa carandas</i> L.	Apocynaceae	Karamdan	Karondaa	Karamarda	Kalakke	Stem Bark & Root
30	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Tarwar	Tarwar	Aaavartaki, Aadaari	Aavaarai	Whole Plant
31	<i>Celastrus paniculata</i> Willd.	Celastraceae	Malkangana	Malkangani	Jyotishmati, Paaraavatpadi	Vaaluluvai	Root & Seeds

32	<i>Cissampelos pareira</i> L.	Menispermaceae	Venivel	Akanadi	Paathaa, Ambashthaa	Paadakkizhangu, Appatta	Root
33	<i>Citrullus coloncyntis</i> L.	Cucurbitaceae	Badi indrayaan, Kadvi kakadi	Hanzal	Indravaaruni, Indravalli	Kumatti	Root, Leaves & Fruits
34	<i>Citrus limon</i> (L.) Burm. F	Rutaceae	Limboo	Aab Leemun	Jambira, Nimbu	Periya elumuchhai	Leaves, Stems & Fruits
35	<i>Cordia dichotoma</i> Forst.	Boraginaceae	Gunda	Sapistan	Shleshmaatata, Picchila	Naruvili	Bark, Leaves & Fruit
36	<i>Crateva nurvula</i> Buch-Ham	Capparidaceae	Varno, Vayavarno	Baranaa	Varuna, Varana	Maavilingam	Whole Plant
37	<i>Curcuma longa</i> L.	Zingiberaceae	Haldi, Haldar	Haldi, Zard Chob	Haridraa, Haridruma	Manjal	Rhizome
38	<i>Datura inoxia</i> Mill	Solanaceae	Dhaturo	Dhaturaa	Dhattuura	Vellum mattai, Kara umattai	Whole Plant
39	<i>Datura metel</i> L.	Solanaceae	Dhaturo	Dhaturaa	Dhattuura, Harapriya	Oomatthai, Karuvomatthai	Whole Plant
40	<i>Derris indica</i> (Lam.) Bennet.	Fabaceae	Karanja	Karanj	Guchpushpak Karanja	Pungu, Pongum	Bark, Leaves, Flowers & Root
41	<i>Diospyros melanoxylon</i> Roxb.	Ebanaceae	Timaru	Tinduka	Tinduka	Karum Dumbi, Thumbi, Beedi-elai	Leaves, Flowers & Fruits
42	<i>Echinops echinatus</i> L.	Asteraceae	Uunta-Kateraa, Utkanto, Shuliyo	Untkatara	Utkantaka, Uttundaka	Brahmadandi, Mullabanti	Whole Plant
43	<i>Eclipta prostrata</i> L.	Asteraceae	Bhangaraa	Bhangraa	Bhiringaraaja, Maarkava	Karisalaankanni	Whole Plant
44	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae	Aamalaa	Amla	Aamalaki, Aamalaka, Dhaatri	Nellikkaai, Nelli	Bark, Leaves & Fruits
45	<i>Enicostema hyssopifolium</i> Verdoon	Gentianaceae	Chhota Chirayataa	Naai, Naahi	Naaghvaa, Maamajjaka	Vellargu	Whole Plant
46	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Rati-dudheli, Moti-dudheli	Dudhi Khurd	Dudhi, Dudhikaa	Amman pachharisi.	Whole Plant.
47	<i>Ficus benghalensis</i> L.	Moraceae	Vad, Vadlo	Reesh Barged	Vata, Nyagrodha	Aalamaram.	Whole Plants.
48	<i>Ficus racemosa</i> L.	Moraceae	Gular, Umardo	Goolar, Anjir-e-Aadam, Anjir-e Ahmak	Udumbara, Sadaaphala, Jantuphala	Atthi	Bark, Root & Fruits
49	<i>Ficus religiosa</i> L.	Moraceae	Pipro/Peepal	Peepal	Ashvattha, Bodhi, Peeppal	Arasu, Ashvatham	Bark, Leaves & Fruits
50	<i>Gymnema sylvestre</i> (Retz.) Schult.	Asclepiadaceae	Madhunashini	Gurmaar Booti	Meshashringi, Meshavishaanikaa	Kannu Minnayamkodi, Passaam, Shirukurinja	Root & Leaves
51	<i>Helicteres isora</i> L.	Sterculiaceae	Maradashingh	Marorphali	Aavartani, Aavartphalaa, Aavartaki	Valampiri	Bark, Leaves, Pods & Seeds
52	<i>Hemidesmus indicus</i> (L.) Schult.	Asclepiadaceae	Sariva, Anantmul	Ushbaa Hindi	Anantmuula, Gopavalli	Nannaari, Suganthipala	Root
53	<i>Hibiscus rosasinensis</i> L.	Malvaceae	Jasood	Gul-e-Gurhal	Japa	Cembarutti	Roots, Leaves & Flowers
54	<i>Holarhena antidysenterica</i> Wall.	Apocynaceae	Kalokado	Inderjeo Talkh (Lisan-ul-asafee)	Kutaja, Indravriksha	Kudasappaalai-pattai, -vidai	Root, Bark & Seeds
55	<i>Hygrophila auriculata</i> Heine	Acanthaceae	Aekhro	Taalmaakhaanaa.	Kokilaaksha, Ikshura	Neermulli	Roots, Leaves & Seeds
56	<i>Justicia adhatoda</i> L.	Acanthaceae	Aradusi	Arusa	Vasaka, Vasaghrita	Adhatoda, Acalai, Cimma-muki	Roots, Bark, Leaves, Flowers
57	<i>Madhuca indica</i> J. F. Gmel.	Sapotaceae	Mahudo	Mahuaa.	Madhuuka, Madhupushpa	Ieluppai	Bark, Flowers & Seed oil & Gum
58	<i>Mangifera indica</i> L.	Anacardiaceae	Aambo	Aam	Aamra, Amb	Manga, Mau, Mamaram, Mangottai Paruppu	Stem Bark, Leaves & Fruits
59	<i>Moringa oleifera</i> Lam.	Moringaceae	Saragavo	Sahajana	Shigru, Sahijanin	Moringa, Murungai	Whole Plant
60	<i>Morus alba</i> L.	Moraceae	Shahtoot	Shahtuut, Tuut	Tuta	Kambli chedi	Root, Bark, Leaves & Fruits
61	<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	Bhair	Konch	Aatmaguptaa, Kapikacchuu	Poonaiikkaali	Leaves, Fruits & Seeds
62	<i>Nicotiana tabacum</i> L.	Solanaceae	Tambaku	Tambaakhu	Taamraparna, Dhuumrapatraa	Pukaiyilai, Nattupukaiyilai	Leaves
63	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulasi	Raihan	Tulasi	Tulasi, Nalla-Tulasi	Whole Plant
64	<i>Pergularia damia</i> (Forsk.) Chiov.	Asclepiadaceae	Nagala dudhi	Mendhasingi	Visanika, Kakaangha	Uttamani, Seendhal kodi, Veliparuthi	Whole Plant

65	<i>Phyllanthus frateruns</i> Webst	Phyllanthaceae	Bhui amla	Bhui Aaamalaa	Tamalaki, Bhummyamalaki	Kila-nelli	Whole Plant
66	<i>Prosopis juliflora</i> (Sw.) DC.	Mimosaceae	Khejaraa, Vilaayati Kikar, Kaabuli Kikar	Ghaff	Shami	Velikathan	Leaves, Pods, Gum
67	<i>Punica grantum</i> L.	Punicaceae	Dadam	Anaar	Daadima, Daadimba	Maathulai	Whole Plant
68	<i>Ricinus communis</i> L.	Euphorbiaceae	Diveligo, Diveli, Erandi	Bed anjeer (Arand)	Eranda, Chitrabija	Ammanakku	Fesh sap, Palm Jaggery, Ash of Dry, Spadix, Leaf stalk & Young root
69	<i>Salvadora persica</i> L.	Salvadoraceae	Piludi	Miswaak, Araak	Pilu (smaller var.), Pilukaa, Sransi, Angaahva, Tikshnavrksha	Perungoli	Whole Plant
70	<i>Sapindus laurifolius</i> Vahl.	Sapindaceae	Aritha	Reethaa	Arishtaka, Reethaakaranja	Puvamkottai, Mani pungu	Root & Fruit
71	<i>Solanum surattense</i> Burm. F.	Solanaceae	Bhiya ringani	Kataai Khurd Hadaq	Kantakaari, Vyaaghri	Kandankatthiri	Whole Plant
72	<i>Sterculia urens</i> Roxb.	Sterculiaceae	Karai, Kandol	Kateera (Gond)	Karaya gum	Kavalam	Leaves & Gum
73	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jambu	Jamun	Jambu, Mahaaphalaa	Naaval	Bark, Leaves, Fruit & Seeds
74	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Aamli	Tamar Hindi	Amla, Amlikaa, Chinchaa	Puli, Aanvilam	Bark, Leaves & Fruits
75	<i>Terminalia arjuna</i> (Roxb.) W. & A.	Combretaceae	Arjun, Sadado	Arjun	Arjuna	Poomarudhu, Neelamarudhu	Stem Bark & Fruits
76	<i>Tinospora cordifolia</i> (Willd.) Miers.	Menispermaceae	Giloya, Guduchi, Galo	Gilo, Sat-e-Gilo	Guduuchi, Amrita, Amritaa	Seenil, Amrida-valli	Root & Stem
77	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokhru	Khar-e-khasak	Gokshura, Gokharu	Sirunenunji, Nerinjil, Nerunjil	Root, Leaves & Fruits
78	<i>Urginea indica</i> L.	Liliaceae	Jangli pyaj	Isqeel (Jangali Piyaaz)	Vana-palaandu, Kolakanda, Vajrakanda	Narivengayam	Bulbs
79	<i>Vitex negundo</i> L.	Verbenaceae	Nagoda	Sambhalu	Nirgundi, Nilanirgundi	Nochi, Nalla Nochi, Vellai Nochchi, Nirkundi	Leaves, Flowers & Seeds
80	<i>Withania somniferum</i> Rodati ex Boiss.	Solanaceae	Asvagandha	Asgand	Ashwagandhaa, Kshirakaakoli	Amukkuramkizhangu	Root, Leaves & Seeds
81	<i>Wrightia tinctoria</i> R.Br.	Apocynceae	Dudhalo	Inderjao Shireen	Kutaja, Indrayava	Pala	Whole Plant
82	<i>Xanthium strumarium</i> L.	Asteraceae	Bana-okraa	Kutta Jhad	Shankheshwara, Arishta, Aartagala	Maruloomatham, Marlumutta	Whole Plant
83	<i>Zizyphus mauritiana</i> Lam.	Rhamnaceae	Bore	Ber	Badar, Kola	Handai	Whole Plant
84	<i>Zizyphus nummularia</i> (Burm. F.) W. & A.	Rhamnaceae	Jhar ber, Bordi	Jharber, Sadarber	Balakapriya	Korgodi, Parpalli-gidda, Narielandai	Root, Leaves and Fruits



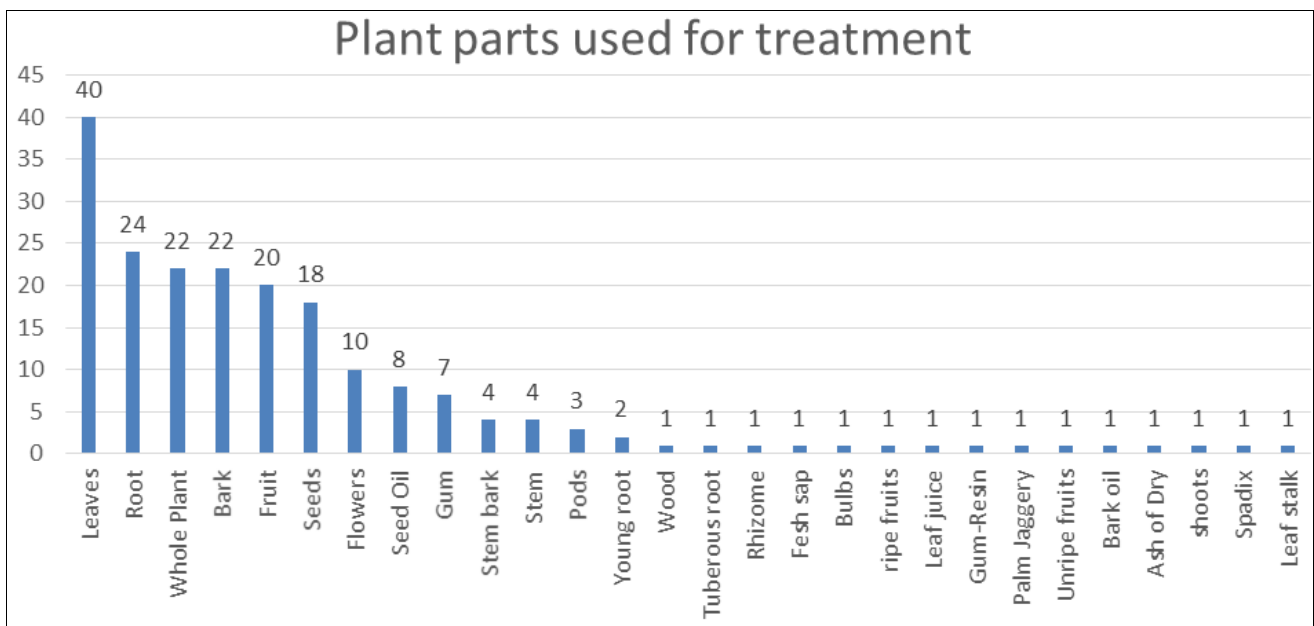


**Fig 1:** Distribution of families based on number of species

**Discussion**

Unani system is a comprehensive medical system, which meticulously deals with the various states of health and disease. The Unani system of medicine offers treatment of diseases related to all the systems and organs of the body. Ethno-medicinal plant species were found to be in use for curing several kinds of human or livestock ailments which represents a diverse array of traditional knowledge. This is also an unambiguous illustration of survival of resource-poor communities on meagre earnings and still living a

healthy and productive life without putting more than required pressure on natural resources. Therefore, it is need of the hour that such worthy traditional knowledge available at local level to be properly documented and disseminated among all. The present study is an attempt to collect/explore, preserve and express the diversity and richness of the Unani plants and traditional knowledge database available among the rural folks. The sighting of 84 diverse Unani plant species and their usage among the locals amply demonstrate the worthiness of such studies.



**Fig 2:** Ratio of plant parts used per family

From above chart we can witness that most common part of the plants is the plant leaves with highest count of 40. By and large, the root count is 24, while, whole plant and bark have the similar count i. e. 22 respectively. Fruit counts have been recorded less than whole plant and bark (20) and for seeds and flowers count are 18 and 10 respectively. Rest other are recorded less than 10 and some even only one-one

count each. Moreover, we would like to emphasize one thing here is parts which are exposed and easily accessible are used more frequently than other plant parts. Even, we have recorded, calculated and presented the values for the part used have highest count while parts in which processing or extraction is required have less count (Fig. 2).



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