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**Enumeration of Medicinal Plants of Ramagiri-Khilla Forests
of Karimnagar District, Telangana, India**

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Abstract

Ramagiri hill forest is a good reserve of medicinal plants in Karimnagar district of Telangana, India. It is a sacred groove and historical site. There are 150 medicinal plant taxa recorded which represent 55 angiosperm families. Papilionaceae are the dominant family with 10 species, followed by Caesalpiniaceae eight, (seven each) Apocynaceae, Combretaceae, Cucurbitaceae and Mimosaceae, Euphorbiaceae, Malvaceae and Rubiaceae (five each). Plant habit-wise, the herbs dominant (57 species), followed by trees (50), shrubs (36), climbers (6) and parasites (1) as source of medicines. This study underscores the need to declare Ramagiri hill as a Medicinal Plant Conservation Centre.

Key-Words: Ethnomedicinal plants, MPCA, Ramagiri Khilla, Ramagiri hill fort, Karimnagar district, Telangana, India

Introduction

Plant-based traditional medical systems continue to provide the primary health care to more than three-quarters of the world's populace. WHO has estimated that over 80% of the global populations rely chiefly on traditional medicine (Akerle, 1991). Indigenous herbal treatment is a part of the culture and dominant mode of therapy in most of the developing countries. It was officially recognized that 2500 plant species have medicinal value while over 6000 are estimated to be explored in traditional, folk and herbal medicine (Huxley, 1984). More emphasis is being placed on possible economic benefits, especially of the medicinal use of tropical forest products (non-woody forest produce) instead of pure timber harvesting (Pimbert and Parks, 1995). In many developing countries, a large population especially in rural and forest areas, depends on traditional medicines for their primary health care. Ramagiri hill forest is located in Karimnagar district of Telangana. It not only known for its rich wealth of medicinal plants but also historical value with the fort built by Kakatiyas. During the Telugu month of Shravana (Aug.-Sep.), the fort attracts pilgrims to offer their rituals and many botanists and Ayurvedic doctors to explore the plant wealth there in.

Kapoor and Kapoor (1980) were the first to publish the medicinal plant wealth of Karimnagar district. Later, Hemadri (1990) enlisted 436 medicinal plants (mere botanical names and vernaculars only) for Karimnagar and Warangal districts. Ravishankar (1990) studied the ethnobotany of Karimnagar and Adilabad districts. An estimation of tribal dependency on local forest (Mahadevpur reserve) was made by Reddy (1996). Rao et al. (1998) reported plants used in ethnomedicine by the tribals of Mahadevapur. Reddy et al. (2003) reported the ethnoveterinary medicinal plants used by the Gonds of Karimnagar district. Naqvi (2001) discussed briefly some of the ethnomedicinal plants from the district as part of his study of the flora. Murthy et al. (2008) recorded ethnomedicinal plants used by the tribes of Mahamuttaram and Yamanpally villages of Karimnagar district. The present report is the inventory the ethnomedicinal plants from Ramagiri Hill forests of Karimnagar district of Telangana, India.

Material and Methods

Study site

Ramagiri hill forest is located 40 km away from Karimnagar, the district head quarters. It includes seven forest beats of Manthani forest range of Karimnagar East Forest Division, viz. Mydambunda, Kundaram, Lakkaram, Peddapally, Sabbitham, Kalvacherla and Maredugonda (Fig. 1). It lies between 79 0 25' E - 79 028' E long. and 18 0 34' N - 18 0 38' lat. The hills extend over 14.7 km, attaining an altitude 679 m. The hill top is plateau of surface area over 40 sq km in which a rock fort was built, called Ramagiri Hill

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Fort or Quilla. The total forest area of Ramagiri hill ranges is 3205.16 sq ha. Ramagiri hill is often referred as Ratnagiri or Ratnagarbha. The history of Ramagiri Hill fort began from the first century AD. This fort was once called Vajra kootami. Gowthami Puthra Shri Shathakarni (62 AD) and Pulomavi (86 AD) ruled this region. The historians believe that the fort was developed by the Mouryan emperors - Chandragupta, Bindusara and Asoka. Kakatiyas defeated Chalukya Gunda Raju and occupied the fort in 1158 AD. Later, the fort went under the rule of Bahamani Sultans (1442-1457) and till 1597 AD under the rule of Moghuls. In 1606 AD, Golconda Nawabs occupied the fort. Muslim Kings ruled the fort till the Nizam regime.

Now the glory of the fort is history and it is in ruins due to the negligence (Rajagopal, 1974; Naqvi, 2001; Rajesham, 2006).

Ramagiri hill ranges and the surrounding forests are known for its medicinal plants. Many families of herbal vendors, traditional medicine men, village vaidyas and folk healers gather the medicinal plants. Some collect the crude medicinal plants to be sold in towns like Karimnagar, Peddapally, Manthani, Jagital, Siricilla and Huzurabad. Local students visit this place to collect the plant to prepare the herbarium specimens. There is a great scope to develop and preserve the fort area as a Medico-botanical centre.

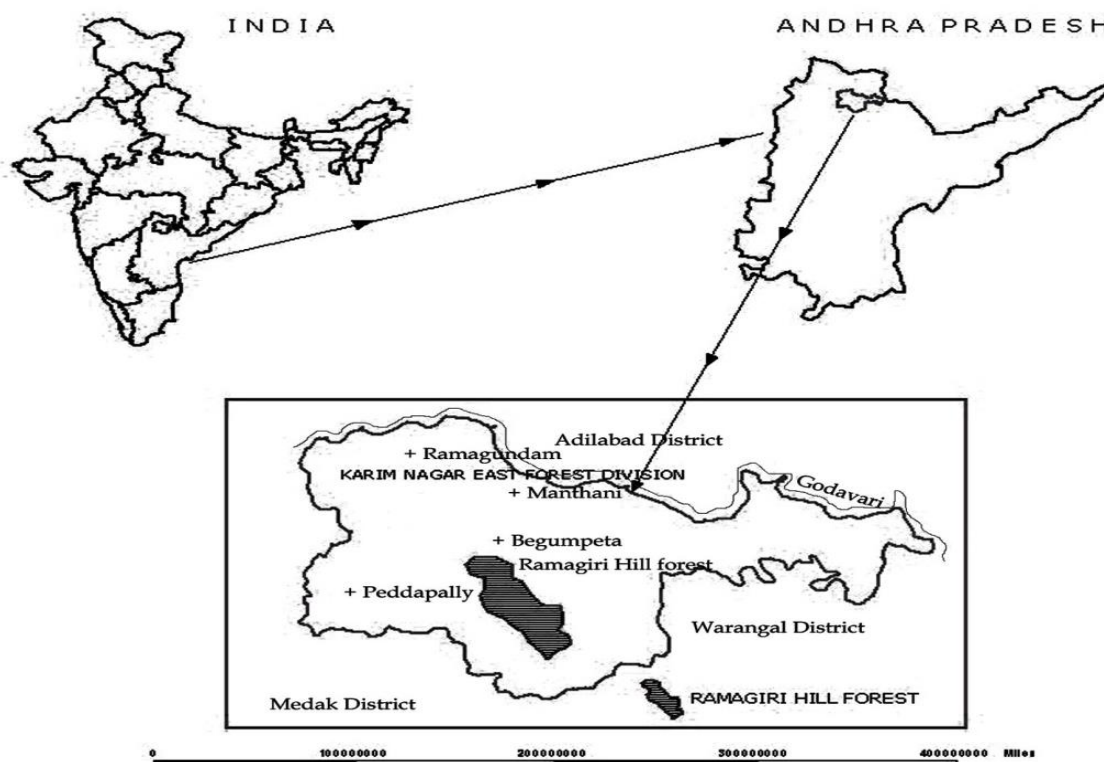


Fig. 1: The study area

Data collection

The medicinal plant survey included repeated interviews with aged local people, herbal healers, shepherds, tribal headmen, owners of cattle herds, etc. in different seasons for two consecutive years. Field trips were conducted during 2009-2011. The information on useful plant species, parts used, local names and mode of utilization was collected. Plants used in their traditional uses were identified with the help of regional floras (Gamble and Fischer, 1915-35). The plant specimens were pressed and deposited in

the Herbarium of Botany Department (KUH), Kakatiya University, Warangal, India.

Results and Discussion

Key findings and Empirical observations

There are 150 medicinal plants recorded from the Ramagiri hill forest representing 55 Angiosperm families. The detailed list of medicinal plants are enumerated in the table 1 with their local/vernacular names, habit, medicinal uses and part used etc.

Table 1: Ethnomedicinal plants of Ramagiri Hill forest, Karimnagar District, Telangana, India

S/N o.	Latin Name	Habit	Family	Vernacular Name	Medicinal Uses	Part Used
1	<i>Abelmoschus ficulneus</i> (L.)Wight & Arn.	H	Malvaceae	Adavi benda	Contraceptive, boils, sprains, sores	L
2	<i>Abrus precatorius</i> L.	C	Papilionaceae	Gurija	Aphrodisiac, anti-inflammatory, eye-troubles	Sd
3	<i>Abutilon indicum</i> (L.) Sweet	S	Malvaceae	Tuturu benda	Leprosy, urethritis	W
4	<i>Acalypha indica</i> L.	H	Euphorbiaceae	Pippenta	Antihelmenthic, hysteria, rheumatism	W
5	<i>Acacia catechu</i> Willd.	T	Mimosaceae	Chandra	Skin diseases, diarrhoea	B
6	<i>Acacia chundra</i> (Rottl.)Willd.	T	Mimosaceae	Chandra bheda	Skin diseases, toothache	B
7	<i>Acacia farnesiana</i> (L.)Willd.	T	Mimosaceae	Murki tumma	Toothache, gum swelling	B
8	<i>Acacia leucophloea</i> (Roxb.) Willd.	T	Mimosaceae	Tella tumma	Stringent	B
9	<i>Acacia nilotica</i> (L.)Del.	T	Mimosaceae	Nalla tumma	Toothache, gum swelling	B
10	<i>Achyranthus aspera</i> L.	H	Amaranthaceae	Uttareni	Piles, diuretics, easy child birth	W
11	<i>Actinopteris radiata</i> (Sw.)Link.	H	Actinopteridaceae	Mayur sika	Antihelmintic	W
12	<i>Adiantum incisum</i> Forssk,	H	Adiantaceae	Rajahamsa	Skin diseases, diabetes	W
13	<i>Aegle marmelos</i> (L.) Corr.	H	Rutaceae	Maredu	Dysentery, vomiting, colic, deafness, piles, jaundice	RB,L, Fr
14	<i>Ailanthes excelasa</i> Roxb.	T	Simaroubaceae	Pedda manu	Dyspepsia, bronchitis, arthritis	B,L.
15	<i>Alangium salviifolium</i> (L.)Wang	T	Alangiaceae	Uduga	Poisoning, dog bite	L.R.Sd
16	<i>Albizia lebbbeck</i> (L.) Benth.	T	Mimosaceae	Dirisena	Snake-bite, scorpion sting	B
17	<i>Aloe vera</i> (L.)Burm.f.	H	Liliaceae	Kalabanda	Piles, menorrhagia	L
18	<i>Alternanthera sessilis</i> (L.)R.Br.	H	Amaranthaceae	Ponaganti	Snake-bite	W
19	<i>Andrographis paniculata</i> (Burm.f.)Nees	H	Acanthaceae	Nalavemu	Fevers, antihelmintic	W
20	<i>Anisochillus carnosus</i> (L.f.)Wall.	H	Lamiaceae	Bhutankusham	Diaphoretic, expectorant	W
21	* <i>Annona squamosa</i> L.	T	Annonaceae	Seethapalam	Paste of seed to kill lice	Sd
22	<i>Anogeissus acuminata</i> (DC.)Guill. &Perr.	T	Combretaceae	Peruleni chettu	Wound healing	B
23	<i>Anogeissus latifolia</i> (DC.) Bedd.	T	Combretaceae	Chiru manu	Snake-bite, scorpion sting	B
24	* <i>Argemone mexicana</i> L.	H	Papaveraceae	Brahma dandi	Syphlis gonorrhoea, leprosy, eczema, eye trouble	W
25	<i>Aristolochia bracteolata</i>	H	Aristolochiaceae	Gaddapaku	Antihelminthic,	W

	L.				amenorrhoea	
26	<i>Aristolochia indica</i> L.	H	Aristolochiaceae	Nalla eeshwari	Snake-bite, arthritis	W
27	<i>Asparagus recemosus</i> Willd.	C	Liliaceae	Pilli teegalu	Stomach-ache	L
28	<i>Azadiracta indica</i> Juss.	T	Meliaceae	Vepa	Fevers, antiseptic, malarial fever, febrifuge	W
29	<i>Balanites roxburghii</i> Planch.	T	Simaroubaceae	Gara	Leprosy, wounds, antheimantic, snakebite	B,Fl,Sd
30	<i>Baliospermum montanum</i> (Willd.)Muell.-Arg.	H	Euphorbiaceae	Danthi	Purgative, stimulent	L,R,Sd
31	<i>Barleria prionitis</i> L.	S	Acanthaceae	Mulugorinta	Sprematorrhoea, ootitis	SD
32	* <i>Basella rubra</i> L.	C	Basellaceae	Batchali teega	Catarrha affections bilious, vomiting	W
33	<i>Bauhinia racemosa</i> Lam.	T	Caesalpiniaceae	Arechettu	Headache, malaria	L
34	<i>Boerhavia diffusa</i> L.	H	Nyctaginaceae	Galli jeru	Urinary disorders, anthelmentic, fever	W
35	<i>Buchanania lanzan</i> Spreng.	T	Anacardiaceae	Charapappu	Urinary disorders	Fr
36	<i>Butea monosperma</i> (Lam.)Taub.	T	Papilionaceae	Moduga	Leucorrhoea	B,Fl
37	<i>Butea monosperma</i> (Lam.)Taub. var. <i>lutea</i> Maheshw.	T	Papilionaceae	Tella moduga	Tonic after delivery	B
38	<i>Butea superba</i> Roxb.	C (Liana)	Papilionaceae	Tiga moduga	Leucorrhoea	B,Fl
39	<i>Caesalpinia bonduc</i> (L.) Roxb.	S	Caesalpiniaceae	Gachapoda	Emmenagogue, gastic tonic	Sd
40	<i>Calotropis gigantean</i> (L.) R.Br.	S	Asclepiadaceae	Tella jilledu	Alterative, tonic, spasmodic, expectorant, eye trouble	Sd
41	<i>Calotropis procera</i> (Ait.)R.Br.	S	Asclepiadaceae	Jilledu	Alterative, tonic, spasmodic, expectorant, eye trouble	W
42	<i>Capparis zeylanica</i> L.	S	Capparaceae	Are donda	Sedative, diuretic	R
43	<i>Caralluma adscendens</i> var. <i>attenuata</i> (Wight) Gravely & Mayur.	H	Asclepiadaceae	Kundeti kommu	Analgetic, toothache	W
44	<i>Cordiospermum helicacabum</i> L.	C	Sapindaceae	Budda teega	Diuretic, laxative, emetic, rheumatism, piles	W
45	* <i>Carica papaya</i> L.	T	Caricaceae	Boppayee	Dyspepsia, psoriasis, chronic eczema	Fr, St
46	<i>Carissa spinarum</i> L.	S	Apocynaceae	Kalimi	Fevers, stomachc, digestive	Fr
47	<i>Carissa carandas</i> L.	S	Apocynaceae	Kalimi	Digestive, carminative	Fr
48	<i>Senna auriculata</i> (L.) Roxb.	S	Caesalpiniaceae	Tangedu	Diabetes, bed wetting	Fr, L
49	<i>Senna fistula</i> L.	T	Caesalpiniaceae	Rela	Laxative, diabetes, gout, rheumatism	Fr, S

50	<i>Senna occidentalis</i> (L.) Link	H	Caesalpiniaceae	Kaasinta	Asthma, skin diseases, laxative	W
51	<i>Senna sophera</i> (L.) Roxb.	H	Caesalpiniaceae	Chennangi	Antiseptic	W
52	<i>Senna tora</i> (L.) Roxb.	H	Caesalpiniaceae	Kasivinda	Leprosy, psoriasis, plague, gout, sciatica, pains	W
53	<i>Cassitha filiformis</i> L.	P/C	Lauraceae	Pachi teega	Bilious affectious, urethritis, skin diseases	W
54	* <i>Catharanthus roseus</i> (L.)G.Don	H	Apocynaceae	Billa gannera	Cancer, blood pressure	W
55	<i>Catunaregum spinosa</i> (Thunb.) Tirv.	S	Rubiaceae	Konda manga	Emetic	Fr
56	<i>Cleome gynandra</i> L.	H	Cleomaceae	Vamintaku	Ear diseases, wounds, ulcers	L
57	<i>Cleome viscosa</i> L.	H	Cleomaceae	Kukka vaminta	Infalmmation of middle ear, applied to wounds	L
58	<i>Clerodendrum phlomidis</i> L.f.	S	Verbenaceae	Takkali	Gonorrhoea, pherperal diseases	L
59	<i>Coccinia grandis</i> (L.) Voigt	C	Cucurbitaceae	Donda teega	Cooling effect	Fr
60	<i>Cocculus hirsutus</i> (L.)Diels	C	Menispermaceae	Dusara teega	Acute gonorrhoea, rhemnatism, syphilis	L
61	<i>Cochlospermum religiosum</i> (L.) Alston	C	Cochlospermaceae	Konda gogu	Diarrhoea, dysentery	B
62	<i>Commelina benghalensis</i> L.	H	Commelinaceae	Venna veduru	Laxative, diabetes, gout, rheumatism	W
63	<i>Crotalaria verrucosa</i> L.	H	Papilionaceae	Telleshwari	Scabies	W
64	* <i>Cucumis sativus</i> L.	C	Cucurbitaceae	Dosa kaya	Throat affections, sun stroke	Fr
65	<i>Curculigo orchioides</i> Gaertn.	H	Hypoxidaceae	Nela tadigadda	Polyurea,aphrodisiac,scrop ion bite,menstural disorders	W
66	* <i>Datura innoxia</i> Mill.	H	Solanaceae	Tella ummetha	Diarrhoea, poisonous bites	W
67	* <i>Datura metal</i> L.	H	Solanaceae	Nala ummetha	Aphrodisiac, insanity	L
68	<i>Dodonaea viscosa</i> (L.)Jacq.	Sh	Sapindaceae	Bandarae	Broken bones, wounds	L
69	<i>Echinops echinatus</i> Roxb.	H	Asteraceae	Brahma dandi	Nervine tonic, diuretic aphrodisiac	W
70	<i>Eclipta prostrata</i> (L.)L.	H	Asteraceae	Gunta galagara	Skin diseases, hepatic tonic, bites	W
71	<i>Euphorbia nivulia</i> Buch.-Ham.	T	Euphorbiaceae	Bonta jemudu	Rhumatism	Latex
72	<i>Evolvulus alsinoides</i> (L.)L.	S	Convolvulaceae	Vishnu kranta	Fevers, dysentery, anthelmintic	W
73	<i>Ficus benghalensis</i> L.	T	Moraceae	Marri	Rhematism, toothaches	B
74	<i>Flacourtia indica</i> (Burm.f.)Merr.	T	Flacourtiaceae	Porika	Snake-bites, gout, rheumatism	Sd
75	<i>Gardenia gummifera</i> L.f.	T	Rubiaceae	Bikki	Antiseptic, authelmintic, bleeding piles	L,Fr,Sd
76	<i>Gisekia pharnaceoides</i> L.	H	Aizoaceae	Irshi-rashkura	Diuretic	W

77	<i>Gloriosa superba</i> L.	H	Liliaceae	Nabi chettu	Abortifacient, leprosy, gonorrhoea	W
78	<i>Gmelina arborea</i> Roxb.	S	Verbenaceae	Gummadi tekku	Galactagogue, gonorrhoea, fevers, indigestion	B
79	<i>Gymnema sylvestris</i> (Retz.) Roem. & Schult.	H	Asclepiadaceae	Poda patri	Stomachic, diuretic, diabetes	L
80	<i>Haldina cordifolia</i> (Roxb.) Ridsdale	T	Rubiaceae	Batta ganepu	Tonic after delivery	B
81	<i>Oldenlandia umbellata</i> L.	H	Rubiaceae	Chiruveru	Snake bite, asthma	W
82	<i>Helictis isora</i> L.	S	Sterculiaceae	Nul tada	Febrifuge	Sd
83	<i>Hemidesmus indicus</i> (L.) R.Br.	H	Asclepiadaceae	Pala sgandhi	Nutritional disorders, leucorrhoea, rheumatism	R
84	<i>Hybanthus enneaspermus</i> (L.) F. Muell.	H	Violaceae	Rathna purusha	Aphrodisiac	W
85	<i>Holorrhena antidysenterica</i> (Roth) DC.	T	Apocynaceae	Kodisha pala	Anthelmintic, carminative	B
86	<i>Ichnocarpus frutescens</i> (L.) R.Br.	C	Apocynaceae	Pala teega	Purifies the blood, skin diseases, syphilis, elephantiasis	L
87	<i>Indigofera tinctoria</i> L.	H	Papilionaceae	Neeli chettu	Sedative, piles, diuretic, dropsy	W
88	* <i>Lawsonia inermis</i> L.	S	Lythraceae	Gorintaku	Burning feet, small pox, rheumatism, wounds	L, Sd
89	<i>Hygrophila auriculata</i> (Schumacher) Heine	H	Acanthaceae	Neeru golimidi	Aphrodisiac, diuretic, dropsy	Sd
90	<i>Leucas aspera</i> (Willd.) Link	H	Lamiaceae	Tummi kura	Insecticide, scabies, snake bite	W
91	<i>Lepidagathis cristata</i> Willd.	H	Acanthaceae	Mulla banthi	Fevers	W
92	<i>Luffa acutangula</i> (L.) Roxb.	C	Cucurbitaceae	Beera	Expectorant, splenitis, haemorrhoides, leprosy	Fr, Sd
93	<i>Luffa acutangula</i> var. <i>amara</i> (L.) Roxb.	C	Cucurbitaceae	Chedu beera	Diabetes, dropsy	Fr
94	<i>Luffa cylindrica</i> (L.) M. Roem.	C	Cucurbitaceae	Venna beera	Cool, demulcent	Fr
95	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) A. Chiov.	T	Sapotaceae	Ippa	Asthma, epistaxis, gives vigour, vitality	B, L, Fr
96	<i>Mangifera indica</i> L.	T	Anacardiaceae	Mamidi	Atonic dyspepsia, constipation, bleeding	Fr
97	<i>Dregea volubilis</i> (L.f.) Benth. ex Hook.f.	C	Asclepiadaceae	Penujittu	Cooling, alterative, gonorrhoea	L, St
98	* <i>Martynia annua</i> L.	S	Martyniaceae	Telu gondi	Used in scorpion stings	Fl
99	* <i>Melia azadirach</i> L.	H	Meliaceae	Turekapa	Anthelmintic, nervous headaches	Fl, Fr
100	* <i>Mimosa pudica</i> L.	H	Mimosaceae	Ati pati	Piles, fistula, scorpion sting, menstrual disorders	Sd
101	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	T	Rubiaceae	Batta ganapa	Stomachache, stimulant, emetic	B
102	* <i>Moringa oleifera</i> Lam.	T	Moringaceae	Munaga	Rheumatism, gout,	B, Fl, S

					syphilis, paralysis	d
103	<i>Moringa concanensis</i> Nimmo ex Dalz.	T	Moringaceae	Chedu munaga	Blood purifier	Sd
104	<i>Mucuna pruriens</i> (L.)DC.	C	Papilionaceae	Duli dundi	Aphrodisiac, leucorrhoea, spermatorrhoea	L
105	* <i>Murraya koengii</i> (L.) Spreng.	S	Rutaceae	Karivepa	Stimulant	L
106	* <i>Musa x paradisiaca</i> L.	S	Musaceae	Arati	Haemoptysis, diabetes	Fr
107	<i>Momordica charantia</i> L.	C	Cucurbitaceae	Kakara	Diabetes, leprosy, piles, jaundice	Fr
108	<i>Momordica dioica</i> Roxb.	C	Cucurbitaceae	Karkotaki	Diabetics	Fr
109	* <i>Nerium indicum</i> Mill.	S	Apocynaceae	Ganneru	Conjunctivities, syphilis	Fl
110	* <i>Ocimum tenuifloium</i> L.	H	Lamiaceae	Tulasi	Expectorant, antiseptic	W
111	* <i>Opuntia dillenii</i> (Ker-Gawl)Haw.	S	Cactaceae	Naga jamudu	Whooping cough, gonorrhoea	W
112	<i>Pergularia daemia</i> (Forssk.)Choiv.	C	Asclepiadaceae	Dishtapu teega	Asthma, leprosy	L,St
113	<i>Phoenix sylvestris</i> (L.)Roxb.	T	Arecaceae	Eetha	Ophthalmia, opacity of cornea	Fr
114	<i>Phyllanthus amarus</i> Schumm.and Thonn.	H	Euphorbiaceae	Nela-usiri	Jaundice, gonorrhoea, insect bites	Fr
115	<i>Phyllanthus emblica</i> L.	T	Euphorbiaceae	Usiri	Asthma, menstrual disorders	Fr
116	<i>Plumbago zeylanica</i> L.	S	Plumbaginaceae	Chiramulamu	Piles, skin diseases	W
117	<i>Pterocarpus marsupium</i> Roxb.	T	Papilionaceae	Teddagi	Toothace, boils	B
118	<i>Pongamia pinnata</i> (L.)Pierre	T	Papilionaceae	Kanugu	Skin diseases, pyorrhea	B
119	* <i>Punica granatum</i> L.	S	Punicaceae	Danimma	Diarrhoea, anthelmentic	Fr,Sd
120	<i>Rivea hypocrateriformis</i> (Desr.)Choisy	C	Convolvulaceae	Teega boddi	Piles, constipation	W
121	<i>Sapindus emarginatus</i> Vahl	T	Sapindaceae	Kunkudu	Migrain, abortifacient	B,Fr,S d
122	<i>Sarcostemma acidum</i> (Roxb.)Voigt	S/C	Asclepiadaceae	Atukudu teega	Wounds, cuts, leprosy	W
123	<i>Ledebourea hyacinthina</i> Roth	H	Hyacinthaceae	Adavi ulligadda	Rheumatic pains	W
124	<i>Sida acuta</i> Burm.f.	H	Malvaceae	Parasukamp	Gen. Debility, boils, absciss	W
125	<i>Sida cordifolia</i> L.	H	Malvaceae	Bhoomi bala	Paralysis, anaemia	W
126	* <i>Solanum americanum</i> Mill.	H	Solanaceae	Kamanchi	Heart diseases, hiccough	Fr,L
127	* <i>Solanum virginianum</i> L.	H	Solanaceae	Nalavakudu	Cough, urinary tract infections	Fr
128	<i>Soymida febrifuga</i> (Roxb.)Juss.	T	Meliaceae	Somi	Fevers, vaginal infections	B
129	<i>Sphaeranthus indicus</i> L.	H	Asteraceae	Boadataram	Eye trouble, tonic, lice killer	W

130	<i>Strychnos nux-vomica</i> L.	T	Loganiaceae	Vishmushti	Paralysis, fevers	Fr,L
131	<i>Strychnos potatorum</i> L.f.	T	Loganiaceae	Chilla	Urinary treat infections, eye diseases	Fr
132	<i>Syzigium cumini</i> (L.)Skeels	T	Myrtaceae	Neredu	Diabetes, Diarrhoea	B,Fr,Sd
133	<i>Tamarindus indica</i> L.	T	Caesalpiniaceae	Chintha	Oedema, piles	Fr,L
134	<i>Tephrosia purpurea</i> (L.) Pers.	T	Papilionaceae	Vempali	Diabetes, spleen, level disorders	W
135	<i>Terminalia alata</i> Roth	T	Combretaceae	Nalla maddi	Bactericidal, ulcer	B
136	<i>Terminalia arjuna</i> (DC.)Wight & Arn.	T	Combretaceae	Eru maddi	Heart diseases, urinary tract infections	B,Fr,Sd
137	<i>Terminalia bellerica</i> (Gaertn.)Roxb.	T	Combretaceae	Tanikya	Urinary calculi, asthma	B
138	<i>Terminalia catappa</i> L.	T	Combretaceae	Badam	Diabetes, back pain	B
139	<i>Terminalia chebula</i> Retz.	T	Combretaceae	Karakkaya	Piles, jaundice	B
140	<i>Tinospora cordifolia</i> (Willd.)Hook.f. & Thoms.	C	Menispermaceae	Tippa teega	Fevers, gout	W
141	<i>Trianthema portulacastrum</i> L.	H	Aizoaceae	Galijeru	Night blindness, urinary disorders	W
142	* <i>Tridax procumbens</i> L.	H	Asteraceae	Nallalam	Antiseptic, cut, wounds, burns	W
143	<i>Tylophora indica</i> (Burm.f.)Merr.	C	Asclepiadaceae	Mekameyami aku	Asthma, emetic	B,L
144	<i>Ventilago denticulata</i> Willd.	C	Rhamnaceae	Erra sulugudu	Tonic, post delivery treatment	B
145	<i>Vitex negundo</i> L.	S	Verbenaceae	Vavila	Sciatica, arthritis, eye trouble	W
146	* <i>Withania somnifera</i> (L.) Dunal	H	Solanaceae	Aswaghanda	Reducing sugar, body strength, aphrodisiac	R,Sd
147	<i>Wrightia tinctoria</i> R.Br.	S	Apocynaceae	Doddapala chettu	Diarrhoea, dysentery	B
148	<i>Ziziphus mauritiana</i> Lam.	T	Rhamnaceae	Ganga regu	Aphrodisiac, diuretic	B,Fl,L
149	<i>Ziziphus oenopia</i> (L.)Mill.	S	Rhamnaceae	Pariki	Digestive tonic, cut wounds	B, Fr
150	<i>Ziziphus xylopyrus</i> (Retz.)Willd.	S	Rhamnaceae	Gotti	Skin diseases	Fr

* Planted/exotic/runningwild; B=Bark; C=Climber; Fl=Flower; Fr=Fruit, H=Herb; L=Leaves; R=Root;Sd=Seed; P=Parasite; S=Shrub; St=Stem; T=Tree; W=Whole plant.

The Papilionaceae are the dominant family (Fig. 2) with 10 medicinal species followed by Caesalpiniaceae with eight, Apocynaceae, Combretaceae, Cucurbitaceae, Mimosaceae with seven, Euphorbiaceae, Malvaceae and Rubiaceae with five species. The rest of the families contribute one or two medicinal species only. It is a thermo-phanerophytic climate (Naqvi 2001). Herbs (57) dominate in their

medicinal use followed by trees (50), shrubs (36), twiners (6) and parasites (1) (Fig.3).

The local people and the herbal physicians use the following phytodrugs for common human ailments: (i) Asthama: Dishtapu teega (*Pergularia daemia*, leaves and stem), Usiri (*Phyllanthus emblica*: fruits), Tani (*Terminalia bellerica*: stem bark) and Mekameyani aku (*Tylophora indica*: leaves). (ii) Blood Purifier: Barre sughandi pala (*Hemidesmus indicus* var. *pubescens*: whole plant), Pala teega (*Ichnocarpus frutescens*:

leaves) and Chedu munaga (*Moringa concanensis*: stem bark). (iii) Bone fracture: Bandarae (*Dodonaea viscosa*: leaves) and Venna bera kaya (*Luffa cylindrical*: fruit) (iv) Diabetes: Tangedu (*Senna auriculata*: leaves and fruits), Relu (*Senna fistula*: fruits and stem bark), Poda patri (*Gymnema sylvestris*: leaves), Chedu beera (*Luffa acutangula* var. *amara*). Arati (*Musa paradisiaca*: fruits), Kakara (*Momordica charantia*: fruits), Boda kakara (*Momordica dioica*: fruits), Neredu (*Syzygium cumini*, seeds: stem bark) and Vempali (*Tephrosia purpurea*: whole plant). (v) Diarrhoea: Konda gogu (*Cochlospermum religiosum*: stem bark), Tella ummetta (*Datura innoxia*, whole plant) and Dodda palachettu (*Wrightia tinctoria*: stem bark). (vi) Eye troubles (including conjunctivitis and opacity of cornea): Gurija (*Abrus precatorius*: seeds), Brahmamandi (*Argemone Mexicana*: whole plant), Tella and Erra jilledu (*Calotropis gigantea*: *C. procera*, all parts), Eetha (*Phoenix sylvestris*: fruits), Chilla (*Strychnos potatorum*: fruit) and Vavila aku (*Vitex negundo*: leaves) (vii) Fever: Nela vemu (*Andrographis paniculata*: whole plant), Vepa

(*Azadirachta indica*: all parts), Kalimi (*Carissa spinarum*: fruits), Vishnu kranti (*Evolvulus alsinoides*: whole plant), Jegi (*Soymida febrifuga*: stem bark) and Tippa teega (*Tinospora cordifolia*: whole plant). (viii) Skin diseases: Chandra (*Acacia catechu*: bark), Chandra bheda (*Acacia chundra*, bark), Kasintha (*Senna occidentalis*: whole plant), Pachiteega (*Cassytha filiformis*, whole plant), Gunta galagara (*Eclipta prostrata*: whole plant), Pala teega (*Ichnocarpus frutescens*: leaves), Chitramulam (*Plumbago zeylanica*: whole plant), Kanugu (*Pongamia glabra*: bark) and Gotti (*Ziziphus xylopyrus*: fruit), and (ix) Toothache and gum swelling: Chandrabheda (*Acacia chundra*: bark), Murki tumma (*Acacia farnesiana*: bark), Kundeti kommu (*Caralluma adscendens* var. *attenuate*: whole plant), Marri (*Ficus benghalensis*: bark) and peddegi (*Pterocarpus marsupium*: bark).

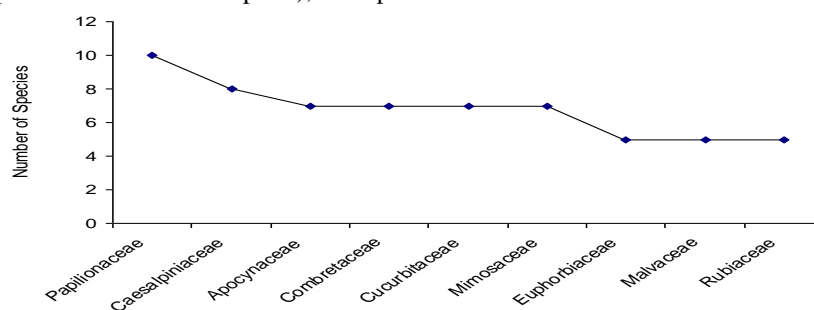


Fig. 2: Dominant angiosperm families contributing medicinal plants.

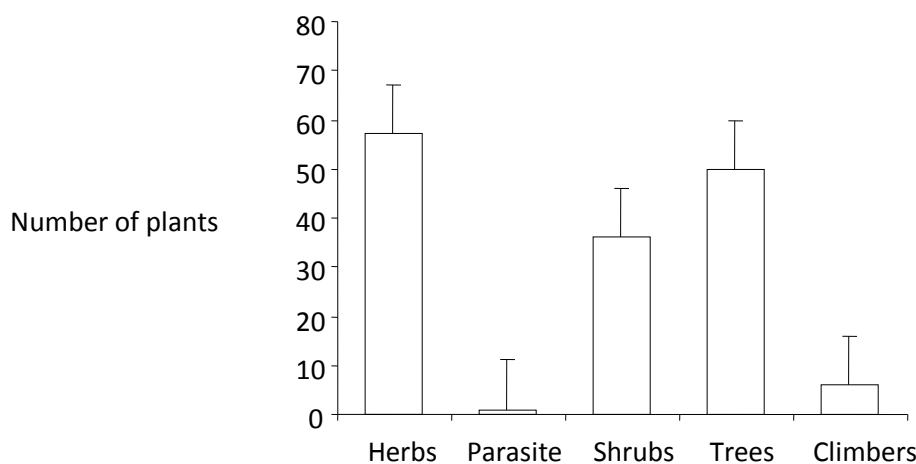


Fig. 3: Habit-wise analysis of the medicinal plant

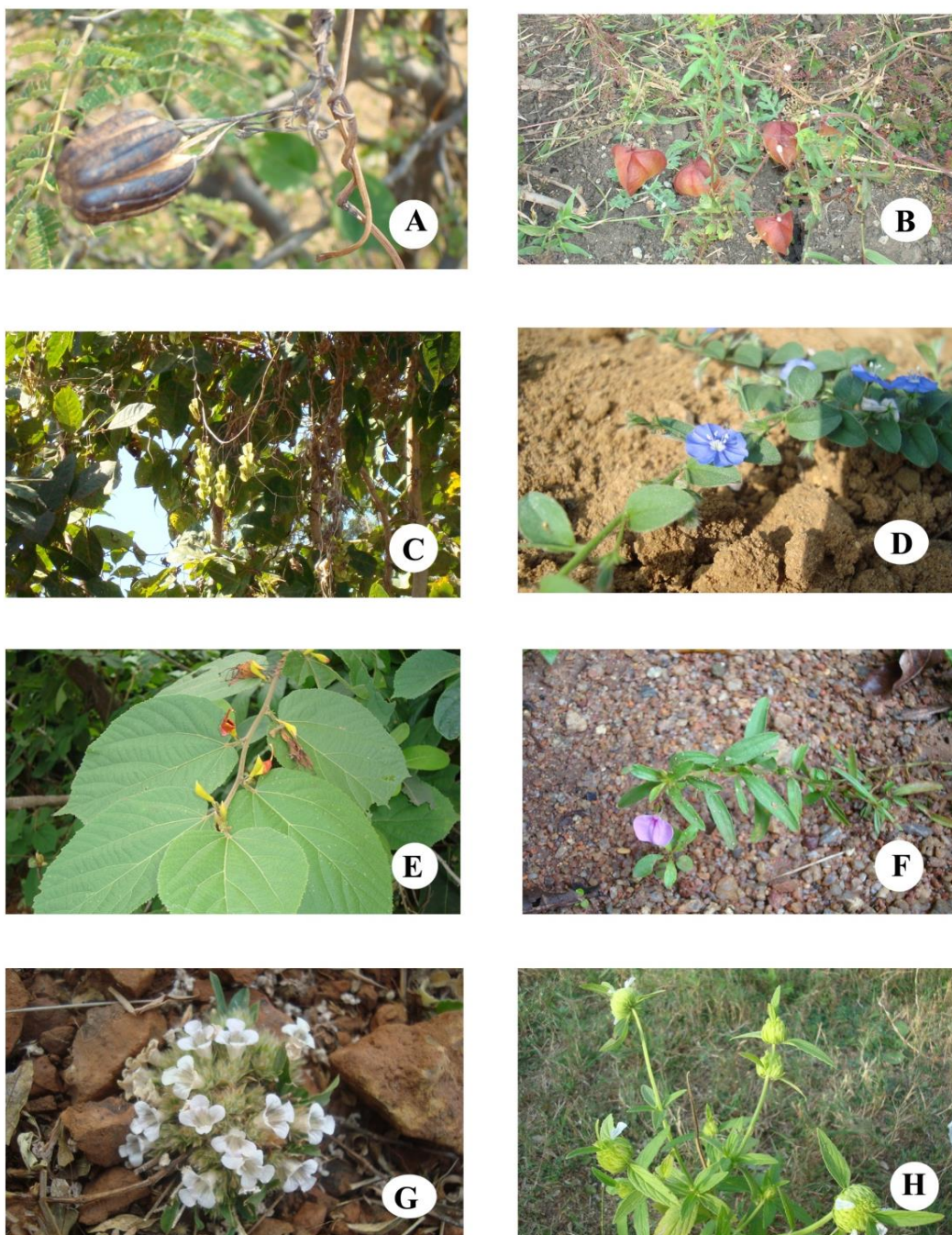


Fig. 4: Medicinal plants of Ramagiri hill forest

- A) *Aristolochia indica*; B) *Cardiospermum halicacabum*; C) *Mucuna pruriens*; D) *Evolvulus alsinoides*; E) *Helicteres isora*; F) *Hybanthus enneaspermus*; G) *Lepidathis cirstata*; H) *Lecuas asper*



Fig. 5: Architectural variations in entrance gates of Ramagiri Fort

Apart from the medicinal plants, beedi leaves, gum karaya, chilla, musti, brooms, ippa and copri are the major non-timber forest produce (NTFPs) collected and sold by the tribal and non-tribals people. Koyas are the main ethnic tribe who are though settled cultivators, depend largely upon the nearby forests for non-timber products. Nayakpods, the other important ethnic tribe, are also primarily agriculturists and podu (shifting) cultivators. They also collect forest produce.

Lambadas, a gypsy non-local tribe, are largely workers and, at places, settled agriculturists. An estimate of their dependence on the local forest was made by Reddy (1996) and Rao et al. (1998). Most of the local communities are benefited by collection of beedi leaf (*Diospyros melanoxylon*), flower and seeds of Mahua (*Madhuca longifolia*) and broom grass (*Thysanolaena maxima*).

Conclusion

The plants are used to discover bioactive natural products that may serve as leads for the development of new pharmaceuticals of hitherto unmet therapeutic needs. Ramagiri hill forest needs immediate attention from the standpoint of conservation. Karimnagar district is rapidly developing in all spheres through rapid expansion of urban limits, indiscriminate open-cast coal mining, granite mining, agriculture, irrigation dams, thermal power stations and cement industries which have bearing on forest ecosystem, and forest cover in the district. Against this backdrop, Ramagiri forest should be announced as Medicinal Plants Conservation Center and need to be developed as ecotourism place along with Kondagattu and Singarayakonda hill forests and Mahadevpur reserved forests which are the important sources of medicinal plants in Karimnagar district of Telangana, India.

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