

STUDIES ON THE MEDICINAL PLANT BIODIVERSITY IN FOREST ECOSYSTEM OF MAHADEVPUR FOREST OF KARIMNAGAR (A.P.) INDIA

Kanaka Rajesham Ch¹, Narasinga Rao N², Venkateshwarlu M², Sammaiah D³, Anitha U¹ and T Ugandhar⁴

¹Department of Botany, Govt. Degree & PG College for Women, Karimnagar –505001 (A.P.) India.

²Department of Botany, University College Kakatiya University, Warangal -506009 (A.P.) India.

³Department of Botany, Govt. Degree College Huzarabad, Karimnagar -503498 (A.P.) India.

⁴Department of Botany, SRR Govt. Degree & P.G College, Karimnagar -505001 (A.P.) India.

tugandharbiotech@gmail.com

ABSTRACT

The Reserve Forests of Mahadevpur Karimnagar East Division, spread in a geographical area of 3.5 lakh kilometers and are deciduous type. The soil is red and the topography is plane type. The Ethno-medico-botanic survey was conducted in this area from April to August 2007. Thirty plant species were collected in consultation with the medicine men, village vydhyas and other local informants of this area, which are of immense medicinal value. The information on the folk medicinal uses of plants was gathered through direct field interviews with herbal healers and village medicine men. Voucher specimens were made in to herbarium and deposited in the Ethno-botany research centre, Department of Botany, Govt Degree & PG College for Women, Karimnagar SRR Govt Degree and P.G College Karimnagar, Govt Degree College Huzurabad Karimnagar and University PG. College Kakatiya University Warangal. Along with the voucher specimens, various plant parts like roots, tubers, barks, leaves, flowers, seeds were also collected and shade dried for lasting the active principles and antimicrobial properties of the medicinal plants. Some note worthy plant species which are used in the treatment of various diseases are *Aristolochia indica* (birth control), *Gymnema sylvestres* (diabetes), *Phyllanthus amarus* (Jaundice), *Abrus precatorious* (Leprocy, Skin diseases), *Acacia nilotica* (Anthrax), *Aegle marmelos* (Skin diseases), *Hardwickia binata* (Dog bite), *Gyrocarpus jacquini* (Leucorrhoea), *Plumbago gelanica* (Leucorrhoea), *Gloriosa superba* (Rheumatism, Gonorrhoea), *Strychnos nux-vomica* (Leprosy). Very rare plants noticed in this area with immense medicinal values are *Croton oblongifolium*, *Hildegardia populifolia*, *Euphorbia fusiformis*, *Curcuma neilghirrense*, *Decalepis honitonii*, *Abelmoschus moschatus*, *Asperagus recemosus*. The information on the medicinal uses of plants, administration doses, botanical names, local names along with cultivation and conservation methods are discussed in this paper.

Keywords: medicinal plant, biodiversity, Ecosystem

INTRODUCTION

**"Moolikale swasthyaniki,
Yelikalanu mata nijam:
Naga Chetla Telivi yunte,
Agachatlu leve yee narulaku:"**
(Venkata Swamy 1890)

Human ailment is as old as human being. Its need for medicinal aid is from the very beginning of its very existence. As such the "Science of Life-The Ayurveda" came in to the rescue of our ancient people, naturally. In olden days, "Dhanvanthari" the father of Ayurveda and the Maharishies like Athreya, Charaka and Sushrutha taught their

disciples through Medico-botanical Excursions, as such every student was very familiar to all the herbs and hence they could be able to identify every plant easily. Due to that reason there was no necessity for Gurus to give much description of particular plant to identify. Therefore, in Ayurved Granthas plants were not described much except their names and uses. Now the identification of the plants has become very difficult without proper description. For example, "Somarville" the most useful medicinal plant, which keeps the man young ever is unidentified due to lack of sufficient morphological, floral and anatomical descriptions.

In the same way “Laxmana” is another plant which plays an important role in sex determination of growing child in mother’s womb is under controversy. So also the same situation in case of “Somarasa”, “Sanjeevini”, and many other valuable plants in terms of their identification and conservation. During ancient period human beings mostly depended upon plants for their food, shelter, clothes and medicine. In recent pasts, because of rapid changes in various socio-economic and cultural factors, we have almost forgotten the immense values awarded by medicinal plants to human beings in achieving the present status of the most successful organism. In the process we have caused unrecoverable damages for petty benefit, also rapid development of urbanization and industrialization cursing many plants including medicinal herbs and hence vanishing a lot unknowingly. As such soil erosion, pollution and ecological imbalance is increasing in leaps and bounds. Therefore, it is our primary responsibility to avoid the heavy exploitation of plant wealth and make best use of plants for our sustaining needs in general and medicinal needs in particular, as such utilized by the ancient people.

In the course of time, due to rapid and boundless development of science and technology, the Allopathic medicine is dominated over Ayurvedic/Traditional medicine for its microfined form and quick results though not perfect yet. Even then the people of rural India, especially in Andhra Pradesh tribals are still dependent upon the Tribal medicine for their better health, as they preserved the ancient knowledge and the values of many forms of plant life as a source of life saving medicine.

The herbal medicine though slows in curing, but perfectly rootout the diseases, as such the Traditional medicine has attracted the main focus of researchers in India. Organization like, Botanical Survey of India (BSI), Culcutta, Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, Indian Council of Medical Research (ICMR), New Delhi, Forest Research Institute (FRI), Dehradun

and several other organizations have become actively engaged in gathering information of medicinal plants from rural tribals to get ample benefits from the herbal medicine.

MATERIALS AND METHODS

The Reserve Forest Block of Mahadevpur and Compartments covered during the Field Survey are 1). RF Block Mahadevpur Beat, Beersagar Compartment No: 241, 242, and 247. RF Block Mahadevpur Beat, Prathapgiri Compartment No: 193, 199, and 200. 3). RF Block Mahadevpur Beat, Pulgula Compartment No: 260. 4). RF Block Mahadevpur Beat, Nusturpally Compartment No; 208, 218. 5). RF Block mahadevpur Beat, Annaram Compartment No; 246, 250, and 251. 6). RF Block Mahadevpur Beat, Kundurpally Compartment No: 226 and 239. Total area potential MPCA (Medicinal Plants Conservation Area) identified in twenty (20) Ha Villages visited. 1). Kundurpally. 2). Edapally. 3). Beerasagar. 4). Kannepally. 5). Prathap Giri. 6). Marripally. 7). Chideneppally. 8). Sandrupally. 9). Annaram 10). Puskupally. 11). Maddulapally. 12). Nagepally. 13). Elkeshwar. 14). Rapally Kota. 15). Nasthurpally. 16). Kaleshwaram. 17) Mahadevpur. The Kaleswaram is a religious pilgrimage centre in which Lord Shiva Temple is located on the river bed “Godavari, and it is flourished with rich flora of the thick forest. So also, the Prathap Giri is a Historical place, as which was under the reign of the “King-Prathapa Rudra Deva” of the old Orugal, Warangal AP, India. This hill area is a beautiful site for many medicinal plants to be explored. Mahadevpur area is a dense forest and flourished with many green canopies. Taxonomically, it is the best site and a reserve resource of plant identification and collection studies.

Local medicine men and health practitioners interviewed 1). Sri Mondi, Mahadevpur. 2). Sri. Gadi chandraiah, Mahadevpur. 3). Sri Kaveri Chandraiah, Kudurupally. 4). Sri Gadi Chandraiah, Beersagar. 5). Sri. Peddi mallaiah, Kaleshwaram. They explained the following 192 plants as detailed in table-I & II.

TABLE-I: Percentage of the species of Medicinal Plants Identified:

Trees	Shrubs	Climbers	Herbs	Dominant	Rare	Threatened
30%	20%	10%	40%	80%	12%	08%

RESULTS AND DISCUSSION

The Forest of Mahadevpur belongs to Karimnagar East Division are very rich in Medicinal plants and 95% of them grow naturally. This is due to the combined effects of the geographical situations and its topography. We worked on the medicinal plants available in this area, which given interesting and encouraging results. All the

specimens were examined and compared with flora of key herbarium. The medicinal uses given by the medicine men were cross checked with the ancient compilations like, Bhava Prakasha Nighantu, Dhanvanthari Nighantu, Indian Medicinal plants Nadkarni, and Indian Materia medica-Kirthikar and Basu and detailed in the Table-II.

Table 2: Enumeration of Medicinal Plants Collected

Sr. No.	Scientific Name (Local Name)	Family Name	Parts Used	Medicinal Uses
1	<i>Abrus precatorius</i> (Guriginja)	Fabaceae	Fruit	Anti-inflammatory
2	<i>Abutilon indicum</i> (Chinna benda)	Malvaceae	Fruit	Haematuria, Strong
3	<i>Abutilon indicum</i> (Tuturu benda)	Malvaceae	Whole plant	Leprosy, Uretritis
4	<i>Acalypha indica</i> (Pippintaku)	Euphorbiaceae	Whole plant	Hysteria, Skin care
5	<i>Acacia catechu</i> (Kachu)	Mimosaceae	Bark, leaf	Dental, Skin care
6	<i>Acacia chandra</i> (Chandra)	Mimosaceae	Bark, leaf	Skin disease,
7	<i>Acaciafareniana</i> (Murikitumma)	Mimosaceae	Bark, leaf	Loose motions
8	<i>Acacia leucophloea</i> (Tellatumma)	Mimosaceae	Bark	Astringent
9	<i>Acacia nilotica</i> (Nallatumma)	Mimosaceae	Bark	Diuretic, Ulcers
10	<i>Acacia tora</i> (Korinda)	Mimosaceae	Whole plant	Leprosy
11	<i>Achyranthus aspera</i> (Uttareni)	Amaranthaceae	Whole plant	Piles, Diurtic, Dent
12	<i>Actinopteris radiata</i> (Mayurasikhi)	Pteridaceae	Whole plant	Skin diseases
13	<i>Adenantheraparonia</i> (Bandigurija)	Mimosaceae	Whole plant	Boils, Gout
14	<i>Adiantum candatum</i> (Rajahamsa)	Pteridaceae	Whole plant	Diabetes, skin soft
15	<i>Aegle marmelos</i> (Maredu)	Rutaceae	Leaf, fruit	Dysentary, vomit
16	<i>Aerva lanata</i> (Pindikura)	Amaranthaceae	Whole plant	Urinary calculi
17	<i>Agaricus compressis</i> (Putta godugu)	Agaricaceae	Basidiocarp	Asthma
18	<i>Agave americana</i> (Kittanara)	Agavaceae	Whole plant	Syphilis, Scurvey
19	<i>Ailanthus excels</i> (Peddamanu)	Simarubaceae	Bark, Leaf	Dyspepsia
20	<i>Alangium salvifolium</i> (Udugu)	Alangiaceae	Leaf	Poison, Dogbite
21	<i>Albizia amara</i> (Narrenga)	Mimosaceae	Leaf	Inflammation
22	<i>Albizia lebbeck</i> (Durusena)	Mimosaceae	Bark, leaf	Snake, Scorpion bite
23	<i>Albizia odoratissima</i> (Chinduga)	Mimosaceae	Bark	Leprosy
24	<i>Aloe veera</i> (Kalabanda)	Liliaceae	Whole plant	Piles, Monorrhoea
25	<i>Alstonia scholaris</i> (Edakulapala)	Apocynaceae	Leaf	Aphrodisiac
26	<i>Amaranthu sspinosus</i> (Thotakura)	Amaranthaceae	Whole plant	Eye-sight
27	<i>Andrographis paniculata</i> (Nelavemu)	Acanthaceae	Whole plant	All fevers
28	<i>Anisochillus camosus</i> (Bhuthankus)	Lamiaceae	Wood, leaf	Diaphoretic
29	<i>Anisomeles indica</i> (Ada beera)	Lamiaceae	Whole plant	Carminative
30	<i>Annona reticulate</i> (Rama phalam)	Annonaceae	Leaf, fruit	Vermicide
31	<i>Annona squamosa</i> (Seethaphal)	Annonaceae	Leaf fruit	Pain relief
32	<i>Antidesmaghaesembille</i> (Pulcheru)	Cambretaceae	Fruit	Leucomia
33	<i>Argemone mexicana</i> (Balurakkasi)	Papavaraceae	Whole plant	Syphilis
34	<i>Aristolochia indica</i> (Nallaeshwari)	Aristolochiaceae	Whole plant	Snake bite
35	<i>AristolochiabRACTIATA</i> (Gadidagdapa)	Aristolochiaceae	Whole plant	Birth control
36	<i>Asparagus recemosus</i> (Pilliteegalu)	Liliaceae	Tubers	Nervous vitality
37	<i>Azadirachta indica</i> (Vepa)	Meliaceae	Leaves, fruit	Skin diseases
38	<i>Balanites aegyptica</i> (Garachettu)	Simarubaceae	Leaf, fruit	Leprosy
39	<i>Bambusa arundinae</i> (Veduru)	Poaceae	Stemapex	Tuberculosis
40	<i>Barleria prionitis</i> (Mullagorinta)	Acanthaceae	Leaf, flower	Spermatorrhoea
41	<i>Bauhinia purpuria</i> (Devakanchanam)	Caesapiniaceae	Leaf, flower	Carminative

42	<i>Bauhinia recemosa</i> (Arechettu)	Caesalpiniaceae	Leaf, flower	Maleria
43	<i>Biophytum sensitivum</i> (Pulichinta)	Oxalidaceae	Whole plant	Thermogenic
44	<i>Boerhavia diffusa</i> (Atakamamidi)	Nyctaginaceae	Whole plant	Urinary disorders
45	<i>Bombax malabarica</i> (Burugu)	Bombacaceae	leaf, fruit	Menorrhoea
46	<i>Borassus flabellifer</i> (Thati)	Arecaceae	Thatikallu	Urinary calculi
47	<i>Boswellia serrata</i> (Andugu)	Burseraceae	Bark, gum	Arthritis
48	<i>Buchnania lanza</i> (Morri)	Anacardiaceae	Seeds	Potency
49	<i>Butea monosperma</i> (Modugu)	Fabaceae	Leaf , flower	Leucorrhoea
50	<i>Caesalpinia bonduc</i> (Gachapoda)	Caesalpiniaceae	Leaf	Hydrocele
51	<i>Calotropis gigantia</i> (Neelijilledu)	Asclepiadaceae	Leaf, latex	Spasmodic
52	<i>Calotropis procera</i> (Tellajilledu)	Asclepiadaceae	Leaf, latex	Spasmodic
53	<i>Canthium parriflorum</i> (Balusu)	Rubiaceae	Leaf, root	Anthelmintic
54	<i>Capparis zylanica</i> (Aredonda)	Capparidaceae	Whole plant	Sedative
55	<i>Careya arborea</i> (Buddadharma)	Bartongiaceae	Leaf	Psoriasis
56	<i>Carica papaya</i> (Boppayee)	Caricaceae	Leaf, fruit	Dyspepsia
57	<i>Caesaria elliptica</i> (Garugu)	Flacourtiaceae	Bark, leaf	Skin diseases
58	<i>Cassia angustifolia</i> (Nelathangedu)	Caesalpiniaceae	Leaf	Laxative
59	<i>Cassia auriculata</i> (Thangedu)	Caesalpiniaceae	Leaf	Diabetes
60	<i>Cassia fistula</i> (Rela)	Caesalpiniaceae	Leaf	Diabetes
61	<i>Cassia occidentalis</i> (Adavichenangai)	Caesalpiniaceae	Leaf	Laxative
62	<i>Cassia tora</i> (Kasintha)	Caesalpiniaceae	Leaf	Leprosy
63	<i>Cassytha filiformis</i> (pachyteega)	Lauraceae	Whole plant	Bilious affect
64	<i>Catharanthus pusillus</i> (Kondamirapa)	Apocynaceae	Whole plant	Paralysis
65	<i>Catharanthus roseus</i> (Billaganneru)	Apocynaceae	Whole plant	Cancer
66	<i>Celosia argentea</i> (Gunugu)	Amaranthaceae	Root	Scorpion bite
67	<i>Centelle asiatica</i> (Saraswathi aaku)	Apiaceae	Whole plant	Brain tonic
68	<i>Cereus pterogonus</i> (Bonthagemudu)	Cactaceae	Whole plant	Dropsy
69	<i>Cissus quadrangularis</i> (Nalleda)	Vitaceae	Whole plant	Bone fracture
70	<i>Citrillus colocynthis</i> (Verripucha)	Cucurbitaceae	Whole plant	Dropsy, ascite
71	<i>Cleistanthus collinus</i> (Kodishe)	Euphorbiaceae	Bark, leaves	Fish poison
72	<i>Cleome gynandra</i> (Vavinta)	Cleomaceae	Leaf slurry	Ear ache
73	<i>Cleome viscosa</i> (Kukka vavinta)	Cleomaceae	Whole plant	Ulcers
74	<i>Clerodendron phlomidis</i> (Takkali)	Verbenaceae	Leaf	Pherperal
75	<i>Coccinia grandis</i> (Donda)	Cucurbitaceae	Leaf	Body pains
76	<i>Coccinia viridis</i> (Lingadonda)	Cucurbitaceae	Leaf, fruit	Diabetes
77	<i>Cocculus hirsutus</i> (Dusari teega)	Menispermaceae	Leaf	Rheumatism
78	<i>Crinum speciosum</i> (Adavi ulli)	Zingiberaceae	Tuber	Rheumatism
79	<i>Crotan oblongifolia</i> (Bhuthamshapu)	Euphorbiaceae	Wood	Superstitions
80	<i>Curculigo orchoides</i> (Nela tadi)	Hypoxidaceae	Tuber	Potency
81	<i>Cynodon dactylon</i> (Garika gaddi)	Poaceae	Whole plant	Haemturia
82	<i>Cyperus rotundus</i> (Thunga)	Poaceae	Tuber	Dyspepsia
83	<i>Daemia extensa</i> (Puli vavili)	Asclepiadaceae	Leaf	Expectorent
84	<i>Dalbergia sissoo</i> (Shishamum)	Fabaceae	Leaf	Haemostatic
85	<i>Datura innoxia</i> (Nalla ummetha)	Solanaceae	Leaf, seed	Poisonous bites
86	<i>Datura metal</i> (Tella ummetha)	Solanaceae	Leaf, seed	Epilepsy
87	<i>Delichondrone crispa</i> (Oddichettu)	Bignoniaceae	Bark	Rheumatism
88	<i>Dichrostachys cenerea</i> (Veluthuru)	Mimosaceae	Bark	Dysentry
89	<i>Diospyrus chloroxylum</i> (Ullentha)	Ebanaceae	Leaf	Liver disorders
90	<i>Diospyrus malabaricus</i> (Muchituniki)	Ebanaceae	Bark	Boils, tumours
91	<i>Diospyrus melenoxylon</i> (Thuniki)	Ebanaceae	Leaf	Diarsolance
92	<i>Echinops echinatus</i> (Brahmadandi)	Asteracea	Whole plant	Nervine tonic
93	<i>Eclipta alba</i> (Guntagalgarra)	Asteraceae	Whole plant	Hair dye
94	<i>Elytaria acaulys</i> (Chepputhattaku)	Acanthaceae	Whole plant	Hair fall
95	<i>Eucalyptus citridora</i> (Neelgiri)	Myrtaceae	Leaf	Mosquito repellant
96	<i>Euphorbia tirucalli</i> (Sannajemudu)	Euphorbiaceae	Whole plant	Neuralgia
97	<i>Euphorbia tithminda</i> (Peddajemudu)	Euphorbiaceae	Whole plant	Backbone set

98	<i>Evolvulus alsinoides</i> (Vishnukrantha)	Convolvulaceae	Whole plant	Fevers
99	<i>Feronia elephantum</i> (Velagachettu)	Rutaceae	Leaf, fruit	Polyurea
100	<i>Ficus bengalensis</i> (Vatavriksham)	Moraceae	Leaf	Rheumatism
101	<i>Ficus hispida</i> (Brahma medi)	Moraceae	Inflorescence	Leucoderma
102	<i>Ficus racemosa</i> (Medichettu)	Moraceae	Inflorescence	Genital
103	<i>Ficus religiosa</i> (Ravi)	Moraceae	Bark, leaf	Gonorrhoea
104	<i>Flacourtie indica</i> (Porika)	Flacourtiaceae	Leaf	Snake bite
105	<i>Gloriosa superb</i> (Nabhi)	Liliaceae	Whole plant	Abortifient
106	<i>Gmelinia arborea</i> (Gummaditeku)	Verbanaceae	Bark, leaf	Galactogogue
107	<i>Gymnema sylvestrus</i> (Podapathri)	Asclepiadaceae	Whole plant	Diabetes
108	<i>Gyrocarpus jacquini</i> (Yerrapogili)	Gyrocarpaceae	Leaf	Leucorhoea
109	<i>Haldina cardifolia</i> (Battaganapa)	Rubiaceae	Leaf	Stomachic
110	<i>Hardwickia binata</i> (Yepichettu)	Caesalpiniaceae	Bark, leaf	Rheumatsm
111	<i>Hemidesmus indicus</i> (Sugandhipala)	Asclepiadaceae	Whole plant	Nutritional
112	<i>Hibiscus rosa-sinensis</i> (Mandara)	Malvaceae	Leaf, flower	Menorrhagia
113	<i>Holoptelea integrifolia</i> (Nemalinara)	Ulmaceae	Bark, leaf	Rheumatic
114	<i>Holostemma ada-kondium</i> (Bandigurije)	Asclepiadaceae	Whole plant	Eye sight
115	<i>Hybanthus enneaspermus</i> (Ratnapurus)	Violaceae	Whole plant	Memory
116	<i>Hygrophila ariculata</i> (Kokilaksham)	Acanthaceae	Root, leaf	Rheumatism
117	<i>Hyptis suaveolens</i> (Maabera)	Lamiaceae	Whole plant	Coughs
118	<i>Ichonocarpus fruitiscens</i> (Nallateega)	Apocynaceae	Whole plant	Blood purifier
119	<i>Indigofera linnaci</i> (Nelavempali)	Fabaceae	Whole plant	Febril
120	<i>Indigofera tinctoria</i> (Neelichettu)	Fabaceae	Leaf	Sedative, piles
121	<i>Jasminum auriculum</i> (Garudamalle)	Oleaceae	Leaf	Expectorant
122	<i>Jasminum pusescens</i> (Podamalle)	Oleaceae	Leaf	Cooling agent
123	<i>Jatropha curcas</i> (Nepalamu)	Euphorbiaceae	Seed	Laxative, Leprosy
124	<i>Lagostromia parvifolia</i> (Chennangi)	Caesalpiniaceae	Leaf	Fevers
125	<i>Lannea coromandelica</i> (Dumpidi)	Anacardiaceae	Leaf, bark	Diabetes
126	<i>Lawsonia incremis</i> (Gorintaku)	Lythraceae	Leaf	Burning feet
127	<i>Lepidagathis cristata</i> (Nakkapeeta gadda)	Acanthaceae	Whole plant	Fevers
128	<i>Leptadenia reticulata</i> (Palateega)	Asclepiadaceae	Whole plant	Ear infection
129	<i>Leucas aspera</i> (Thummi)	Lamiaceae	Whole plant	Insecticide
130	<i>Luffa echinatus</i> (Davaradangi)	Cucurbitaceae	Whole plant	Ascites
131	<i>Luffa acutangula</i> var. <i>amara</i>	Cucurbitaceae	Fruit	Diabetes
132	<i>Madhuca longifolia</i> (Ippa)	Sapotaceae	Flower	Vigour,vitality
133	<i>Malilotus philippensis</i> (Kumkuma)	Euphorbiaceae	Flower	Jaundice
134	<i>Mangifera indica</i> (Mamidi)	Anacardiaceae	Bark	Bleeding
135	<i>Manilkara hexandra</i> (Paala chettu)	Sapotaceae	Leaf	Ulcers
136	<i>Martynia annua</i> (Telukondikaya)	Martyniaceae	Leaf	Scorpion sting
137	<i>Melia azadirach</i> (Turakvepa)	Meliaceae	Leaf	Anthelmintic
138	<i>Melothria maderaspatana</i> (Lanje batani)	Cucurbitaceae	Leaf	Antihypertensive
139	<i>Merremia emerginata</i> (elikajemudu)	Convolvulaceae	Whole plant	Rat bite, Uropathy
140	<i>Mimosa pudica</i> (Attipatti)	Mimosaceae	Leaf	Piles, fistula
141	<i>Mitragyna parviflora</i> (Battaganapa)	Moringaceae	Leaf	Rheumatism
142	<i>Moringa oleifera</i> (Munaga)	Moringaceae	Leaf, flower	Rheumatism
143	<i>Mucuna pruriens</i> (Doolagondi)	Fabceae	Seed	Spermorrhoea
144	<i>Murraya koenigi</i> (Karivepa)	Rutaceae	Leaf	Liver diseases
145	<i>Momordica charantia</i> (Kakara)	Cucurbitaceae	Fruit	Diabetes
146	<i>Nerium indicum</i> (Ganneru)	Apocynaceae	Root	Syphilis
147	<i>Nyctanthus arbortistis</i> (Parijatham)	Oleaceae	Bark, leaf	Sciatica
148	<i>Ocimum americanum</i> (Bhutulsi)	Lamiaceae	Leaf	Anorexia
149	<i>Ocimum sanctum</i> (Tulasi)	Lamiaceae	Leaf	Ear ache
150	<i>Ocimum sanctum</i> (Tulasi)	Lamiaceae	Leaf, seed	Expectorant
151	<i>Oldenlandia umbellata</i> (Amara)	Rutaceae	Whole plant	Snake bite

152	<i>Opuntia dilleni</i> (Nagajemudu)	Opuntiaceae	Whole plant	Whooping cough
153	<i>Oroxylum indicum</i> (dundilam)	Bignoniaceae	Bark, leaf	Oedema
154	<i>Pergularia daemia</i> (Dustaputeega)	Asclepiadaceae	Whole plant	Piles
155	<i>Phyllanthus amarus</i> (Nela usiri)	Euphorbiaceae	Whole plant	Jaundice
156	<i>Phyllanthus emblica</i> (Pedda usiri)	Euphorbiaceae	Leaf, fruit	Asthma
157	<i>Physalis minima</i> (Buddabusada)	Solanaceae	Leaf, fruit	Fevers
158	<i>Plumbago zeylanica</i> (Chitramulamu)	Plumaginaceae	Root	Piles
159	<i>Pongamia pinnata</i> (Kanuga)	Fabaceae	Leaf	Skin disease
160	<i>Prosopis cineraria</i> (Jammi)	Mimosaceae	Bark, leaf	Rheumatism
161	<i>Pterocarpus marsupium</i> (Peddegi)	Fabaceae	Bark, wood	Tooth ache
162	<i>Pterocarpus santalinus</i> (R. chandanam)	Fabaceae	Xylum wood	Heart disease
163	<i>Punica granatum</i> (Danimma)	Punicaceae	Leaf	Nose bleeding
164	<i>Randia dumetorum</i> (Manga)	Rubiaceae	Leaf	Emetic
165	<i>Ricinus communis</i> (Aamudamu)	Euphorbiaceae	Leaf, seed	Diuretic
166	<i>Sapindus tufoliatus</i> (Kunkudu)	Sapindaceae	Leaf, fruit	Migrain
167	<i>Semecarpus anacardium</i> (Nallajeedi)	Anacardiaceae	Bark, fruit	Ascites
168	<i>Solanum nigrum</i> (Kamanchi)	Solanaceae	Whole plant	Heart diseases
169	<i>Solanum surttense</i> (Nelamuluka)	Solanaceae	Whole plant	Coughs
170	<i>Sphaeranthus indicus</i> (Bodasaram)	Asteraceae	Whole plant	Hemicrania
171	<i>Strychnos nux-vomica</i> (Vishmusti)	Loganiaceae	Leaf, fruit	Leprosy
172	<i>Strychnos potatorum</i> (Chillaginja)	Loganiaceae	Leaf, fruit	Eye diseases
173	<i>Syzygium cumini</i> (Neredu)	Myrtaceae	Leaf, fruit	Urinary calculi
174	<i>Tamarindus indica</i> (Chinta)	Caesalpiniaceae	Bark, leaf	Oedema, piles
175	<i>Tectona grandis</i> (Teak)	Verbanaceae	Bark, leaf	Digestion
176	<i>Tephrosia purpurea</i> (Vempali)	Fabaceae	Whole plant	Spleen, liver
177	<i>Terminalia arjuna</i> (Tellamaddi)	Combretaceae	Bark, leaf	Heart diseases
178	<i>Terminalia bellarca</i> (Thanikaya)	Combretaceae	Bakk, fruit	Tridosa
179	<i>Terminalia catappa</i> (Badami)	Combretaceae	Bark, seed	Back pain
180	<i>Terminalia chebula</i> (Karkkaya)	Combretaceae	Bark, fruit	Piles, jaundice
181	<i>Terminalia tomentosa</i> (Nallamaddi)	Combretaceae	Bark, leaf	Bactericidal
182	<i>Tinosora cardifolia</i> (Tippateega)	Menispermaceae	Stem, leaf	Fevers, gout
183	<i>Trianthema portulcatrum</i> (Gajar)	Aizoaceae	Tuber	Night blindness
184	<i>Tribulus terrestris</i> (Palleru)	Zygophyllaceae	Whole plant	Potency
185	<i>Tridax procumbens</i> (G-chamanthi)	Asteraceae	Whole plant	Antiseptic
186	<i>Tropis aspera</i> (Barrenka)	Moraceae	Leaf,stem	Tooth ache
187	<i>Tylophora indica</i> (Myaka meyani aaku)	Asclepiadaceae	Whole plant	Asthma
188	<i>Vanda roxburghii</i> (veduru badnika)	Orchidaceae	Whole plant	Osteoarthritis
189	<i>Vitex nigundo</i> (Vavili)	Verbenaceae	Leaf	Sciatica, arthritis
190	<i>Wrightia tinctoria</i> (Tedlapala)	Apocynaceae	Leaf	Dysentery
191	<i>Ziziphus jujuba</i> (Gang regu)	Rhamnaceae	Bark, fruit	Aphrodisiac
192	<i>Ziziphus rugosa</i> (Regu)	Rhamnaceae	Bark, leaf	Obesity
193	<i>Ziziphus oenoplica</i> (Pariki)	Rhamnaceae	Leaf, fruit	Digestive tonic

CONCLUSION

Due to indiscriminate exploitation and lack of Conservation a number of valuable plants have become vulnerable. To avoid this, it is necessary to educate the local public and conserve the existing vegetations by way of various methods of propagation and involving the water shed committees in these programmes. Also it is needed for the cultivation, processing and conservation of

rare and threatened medicinal plants, through appropriate methods to meet the developmental task. The present study of medicinal plants at Mahadevpur Reserve Forests of Karimnagar East Division was taken up to document the diversity of medicinal plants available and to formulate the strategy for conservation and development of medicinal plants

LITERATURE CITED

- Ansari AA, 1993.** Threatened medicinal plants from Madhauli Forests of Gorakhpur. *Journal of Economic and Taxonomic Botany*, 17: (10) 241.
- Beneree DK and Pal DC, 1994.** *Plants used by the tribals of plain land in India for hair and scalp preparation.* 4th Internat. Cong. Ethnobiol. NBRI, Lucknow. Nov.1721, 340.
- Basu NK and Lamsal P, 1947.** Investigation on Indian Medicinal Plants. II. *Hydrocotyle asiatica*. *Quart. J. Pharm*, 6: 84.
- Biswas K and Chopra RN, 1982.** Common Medicinal plants of Darjeeling and the Sikkim Himalayas. *Periodical Experts Book Agency*, D-42, Vivek Vihar, Delhi.110032. 157p.
- Chadha KL and Gupta R, 1995.** Advances in Horticulture Vol II. *Medicinal and Aromatic Plants*. Malhotra Pub. House, New Delhi, 932p.
- Chomchalo N and Henle HV, (Ed), 1995.** *Medicinal and aromatic plants in Asia*. Oxford & IBH New Delhi, 196p.
- Chopra RN Nayar SL and Chopra IC, 1980.** *Glossary if Indian Medicinal Plants*.CSIR, New Delhi.
- Chunekar KC 1982.** *Bhavaprakasha Nighantu* of Shree Bhavamishra Commentary, Varanasi . (Hindi)
- Dey AC 1980.** *Indian Medicinal Plants Used in Ayurvedic Preparations*. Bishen sing, Mahendra Pal Sing,Dehra Dun. 248001. 202p.
- Dolidas and Agaraval VS, 1991.** *Fruit Drug Plants of India*. Kalyani publishers, New Delhi-Ludhiana. 250p.
- FAO 1993.** *Medicinal and Aromatic Plants in Asia*. Oxford & IBH Pub. Pvt. Ltd. New Delhi, 196p.
- Graves G 1986.** *Medicinal Plants–Anillustrated guide to more than 180 herbal plants*. Bracken Books, London, P.91.
- Kirtikar KR and Basu BD, 1988.** *Indian Medicinal Plants*. Vol I&II. Internat.Book Distributors, Dehra Dun.
- Kurup PN V ramdas V N Kand Joshi P, 1979.** *Hand Book of Medicinal Plants*. NewDelhi.
- Moos N. S. 1978.** *Ayurvedic Flora Medica*. Kottayam.
- Nadkarni KM, 1986.** *Indian Materia Medica*. Sangam Books Ltd London, p1319.
- Nadkarni KM, 1998.** *Indian Medicinal Plants and Drugs with their Medicinal properties anduses*. Asiatic Publishing House, New Delhi 450p.
- Rastogi RP and Mehrothra BN 1991.** *Compendium of Indian Medicinal Plants*. Central Drug Research, Lucknow and Publication and Information Directorate, New Delhi.P.233.
- Satyvathi GV Raina MK and Sharma M (Eds). 1976, (1987.** *Medicinal Plants of India*. New Delhi.
- Sivarajan VV and Balachandran I. 1994.** *Ayurvedic Drugs and their Plant Sources*. Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi. P570.
- Srivastava RC 1989.** *Drug Plant Resources of ndia*. PP 14-15.
- Thakur RS Puri HS and Hussain A 1989.** *Major Medicinal Plants of India*, CIMAP Lucknow, India.
- Thomas J 1997.** *Medicinal and Aromatic plants Reseach in India*. In UNDP 1997.
- Sree Yerram KaVastugum Venkat Swamy 1880.** Vastugum deepika Vastugum Deepika.**Vol 3 -124-138**
- Warrier PK Numbiar VPK and Ramankutty C, 1993-1995.** *Inddian Medicinal Plants*. Vol-I to V Orient Longman Ltd. Madras.

How to Cite this Article:

Kanaka Rajesham Ch, Narasinga Rao N, Venkateshwarlu M, SammaiahD, Anitha U and Ugandhar T, 2013. Studies on the medicinal plant biodiversity in forest ecosystem of Mahadevpur forest of Karimnagar (A.P.) India. *Biosci. Disc.*, 4(1):82-88.