



Endemic and threatened taxa of Jabalpur district central Madhya Pradesh, India

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Abstract

The present paper focused on "rare, endemic and threatened taxa from Jabalpur district central Madhya Pradesh". Due to changing environmental conditions, biotic factors, destruction of habitat improper harvesting of natural resources, are the main causes for loss of biodiversity and their existence. Efforts of promoting conservation and cultivation are the only remedies. It deals directly to conserve wild plants in the natural habitat and in botanical gardens. Present work has involved important issues. Taxonomical studies, status of plant, awareness of medicinal plants for conservation through ethnobotanical studies and knowledge to different local communities.

Keywords: Jabalpur district, taxonomy, threatened species

1. Introduction

The biological diversity or biodiversity means variety or variability of flora and fauna occur in a place. We can also define as richness of species, genera and families at place.

The loss of biodiversity, degradation of habitats and ecosystems are mostly irreversible, ultimately resulting in extinction of species. This creates deforestation, overexploitation, habitat destruction and modification of natural habitat as well as human activities. Of the 3, 00,000 estimated angiospermic species of the world, about 2, 50,000 has been described till now. India is one of the twelve mega diversity region of the world. Out of the total twelve biodiversity hotspots in the world India has two, one is the north east region and other is Western Ghats.

The goal of Convention Biological Diversity (CBD) and National Plant Programme, on threatened plant ex-situ conservation in forest botanical garden & multiplication. Madhya Pradesh plant wealth and Botanical Survey of India has documented 2500 species of angiosperms in the Flora of state of Madhya Pradesh. In which a number of endemic, rare and indigenous species of angiosperms belonging to various degrees of threat and there was a need to conserve.

Some, important noteworthy document about rare, endemic and threatened plants published by Botanical Survey of India (BSI) in 1980. Jain and Sastry, 1980 published "Threatened plants of India". Thenceforward, a comprehensive work on rare and threatened plants of India published in three volumes entitled "Red Data Book of Indian Plants" [1, 2, 3]. Due to climate change, urbanizations, industrialization, overexploitation of medicinal plants and habitat destruction, valuable medicinal plants are loosing ground in Madhya Pradesh [4, 5] documented 313 threatened plant taxa in Vindhya

region, Rewa Madhya Pradesh. Which were belonging to critically endangered, Endangered, Vulnerable, Not threatened but susceptible, least concern and Data deficient and regionally in the wild.

The government bodies as well as NGOS are to take the responsibility for the save the rare, endemic and threatened plant and wealth. These national parks, sanctuaries, protected and non-protected forests play a vital role in conservations of threatened plants.

2. Material and Methods

Extensive floristic survey was undertaken in different areas of Jabalpur district throughout of the years (2011-2015) and taken digital photographs in natural habitat, plant species collected for the observations and identification in to the laboratory during the study period. The plant species were identified with help of different floras viz., Flora of Jabalpur [6]; Flora of Bhopal [7]; Flora of Flora of Madhya Pradesh [8, 9, 10] Some important rare, threatened plants were recorded form the study site. During floristic survey to prepared the list of RET species various criteria of 3.1 IUCN for categorizing threatened plants.

The digital electronic herbarium was constructed and the whole data of plant specimens were feeded in the DELTA software and digital images were attached to the respective plant descriptions in the database. The traditional herbarium method also adopted from [11, 12] and the prepared herbarium specimens was confirmed at S.F.R.I., Jabalpur (M.P.). Various experts and other literatures were also consulted for identification, their systematic position and nomenclature of the taxa.

3. Result and Discussion

Table 1: Index of threat status of plant species given as per IUCN version 3.1/ National Red List/ FRLHT etc. for rare, endemic and threatened plants.

S. No.	Botanical name	Family	Plants status
1.	<i>Abrus precatorius</i> L.	Papilionaceae	E
2.	<i>Abutilon indicum</i> (Linn.) Sweet.	Malvaceae	NTH(S)
3.	<i>Acacia catechu</i> (L. f.) Will.	Mimosaceae	NTH(S)
4.	<i>Acacia nilotica</i> (L.) Del. Descr.	Mimosaceae	LC
5.	<i>Achyranthes aspera</i> L.	Amaranthaceae	LC
6.	<i>Adhatoda zeylanica</i> Medicus Hist. Commeal.	Acanthaceae	V
7.	<i>Aegle marmelos</i> (L.) Correa.	Rutaceae	LC
8.	<i>Alangium salvifolium</i> (L. f.) Wang.	Alanginaceae	V
9.	<i>Albizia lebbek</i> (L.) Benth.	Mimosaceae	LC
10.	<i>Albizia procera</i> (Roxb.) Benth.	Mimosaceae	LC
11.	<i>Aloe barbadensis</i> Mill.	Liliaceae	V
12.	<i>Alstonia scholaris</i> R. Br.	Apocynaceae	V
13.	<i>Amorphophallus campanulatus</i> (Roxb.) Bl. ex. Decme.	Araceae	V
14.	<i>Anacardium occidentale</i> L.	Anacardiaceae	V
15.	<i>Andrographis paniculata</i> (Burm.f.) Wall ex. Ness.	Acanthaceae	E
16.	<i>Annona muricata</i> Mill.	Annonaceae	E
17.	<i>Annona reticulata</i> L.	Annonaceae	E
18.	<i>Annona squamosa</i> L.	Annonaceae	NTH(S)
19.	<i>Anogeissus latifolia</i> (DC.) Wallich ex. Beddome.	Combretaceae	LC
20.	<i>Argemone mexicana</i> L.	Papaveraceae	LC
21.	<i>Argyrea nervosa</i> (Brun. f.) Roj. Hort.	Convolvulaceae	CR
22.	<i>Aristolochia indica</i> L.	Aristolochiaceae	E
23.	<i>Artabotrys hexapetalus</i> L. f.	Annonaceae	E
24.	<i>Artocarpus lakoocha</i> Roxb.	Moraceae	E
25.	<i>Asparagus racemosus</i> Willd.	Liliaceae	E
26.	<i>Azadirachta indica</i> A. Juss.	Meliaceae	LC
27.	<i>Bacopa monnieri</i> (L.) Pannel. Proc.	Scrophulariaceae	V
28.	<i>Barleria cristata</i> L.	Acanthaceae	V
29.	<i>Bauhinia malabarica</i> Roxb.	Caesalpiniaceae	LC
30.	<i>Bauhinia purpurea</i> L.	Caesalpiniaceae	LC
31.	<i>Bauhinia variegata</i> L.	Caesalpiniaceae	NTH(S)
32.	<i>Blumea lacera</i> (Burm.f.) DC.	Asteraceae	LC
33.	<i>Blumea oxyodonta</i> DC.	Asteraceae	LC
34.	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	LC
35.	<i>Bombax ceiba</i> L.	Bombacaceae	NTH(S)
36.	<i>Bombax insigne</i> Wall.	Bombacaceae	V
37.	<i>Boswellia serrata</i> Roxb. ex. Colebr.	Burseraceae	NTH(S)
38.	<i>Buchanania lazan</i> Sprengel.	Anacardiaceae	NTH(S)
39.	<i>Butea monosperma</i> (Lamk.) Taub.	Papilionaceae	LC
40.	<i>Butea superba</i> Roxb.	Papilionaceae	V
41.	<i>Calotropis gigantea</i> (L.) R. Br.	Asclepiadaceae	V
42.	<i>Calotropis procera</i> (Ait.) R. Br.	Asclepiadaceae	LC
43.	<i>Canna indica</i> L.	Cannaceae	V
44.	<i>Cardiospermum helicacabum</i> L.	Sapindaceae	E
45.	<i>Careya arborea</i> Roxb.	Lecythidaceae	V
46.	<i>Carrisa congesta</i> Wight.	Apocynaceae	V
47.	<i>Carrisa spinarum</i> L.	Apocynaceae	LC
48.	<i>Cassia fistula</i> L.	Caesalpiniaceae	LC
49.	<i>Cassia occidentalis</i> L.	Caesalpiniaceae	NTH(S)
50.	<i>Cassia tora</i> L.	Caesalpiniaceae	LC
51.	<i>Ceiba pentandra</i> (L.) Gaertn.	Bombacaceae	V
52.	<i>Celastrus paniculata</i> Willd.	Celastraceae	V
53.	<i>Celosia argentea</i> L.	Amaranthaceae	
54.	<i>Centella asiatica</i> L.	Apiaceae	V
55.	<i>Cestrum nocturnum</i> L.	Solanaceae	V
56.	<i>Cissampelos pareira</i> L.	Menispermaceae	V
57.	<i>Cissus quadrangularis</i> L. Mantiss.	Vitidaceae	V
58.	<i>Cleome gynandra</i> L.	Capparidaceae	V

59.	<i>Clerodendrum indicum</i> (L.) Kuntze.	Verbenaceae	V
60.	<i>Clerodendrum serratum</i> (L.) Moon.	Verbenaceae	V
61.	<i>Clitoria ternatea</i> L.	Papilionaceae	V
62.	<i>Coccinea grandis</i> (L.) Voigt.	Cucurbitaceae	LC
63.	<i>Costrus speciosus</i> (Koenig) Sm. Trans.	Zingiberaceae/ Costaceae	E
64.	<i>Crotalaria hirsuta</i> Willd.	Papilionaceae	V
65.	<i>Crotalaria juncea</i> L.	Papilionaceae	V
66.	<i>Cucumis sativus</i> L.	Cucurbitaceae	V
67.	<i>Curcuma amada</i> Roxb.	Zingiberaceae	V
68.	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	V
69.	<i>Dalbergia latifolia</i> Roxb.	Papilionaceae	NTH(S)
70.	<i>Datura innoxia</i> Mill.	Solanaceae	V
71.	<i>Datura metel</i> L.	Solanaceae	LC
72.	<i>Datura stramonium</i> L.	Solanaceae	V
73.	<i>Desmodium dichotomum</i> (Willd.) DC.	Papilionaceae	V
74.	<i>Desmodium gangeticum</i> (L.) DC.	Papilionaceae	V
75.	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	V
76.	<i>Diospyros melanoxylon</i> Roxb. Cor.	Ebinaceae	V
77.	<i>Diplocyclos palmatus</i> L.	Cucurbitaceae	V
78.	<i>Echinops echinatus</i> Roxb.	Asteraceae	LC
79.	<i>Eclipta prostrata</i> L.	Asteraceae	NTH(S)
80.	<i>Erythrina indica</i> Lamk.	Papilionaceae	NTH(S)
81.	<i>Erythrina variegata</i> Linn.	Papilionaceae	NTH(S)
82.	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	E
83.	<i>Ficus benghalensis</i> L.	Moraceae	LC
84.	<i>Ficus carica</i> L.	Moraceae	E
85.	<i>Ficus microcarpa</i> L. f.	Moraceae	E
86.	<i>Ficus racemosus</i> L.	Moraceae	V
87.	<i>Ficus religiosa</i> L.	Moraceae	V
88.	<i>Ficus tinctoria</i> Forst. f.	Moraceae	V
89.	<i>Gliricidia sepium</i> (Jacq.) Kunth. Ex. Walp.	Papilionaceae	V
90.	<i>Gloriosa superba</i> L.	Liliaceae	E
91.	<i>Gmelina arborea</i> Roxb.	Verbenaceae	V
92.	<i>Grevillea robusta</i> Cunn. in R. Br.	Proteaceae	E
93.	<i>Gymnema sylvestre</i> (Retz.) R. Br. ex. Schult.	Periplocaceae	V
94.	<i>Helicteres isora</i> L.	Sterculiaceae	LC
95.	<i>Heliotropium indicum</i> L.	Heliotropiaceae / Boraginaceae	NTH(S)
96.	<i>Heliotropium ovalifolium</i> Forsk.	Heliotropiaceae / Boraginaceae	NTH(S)
97.	<i>Hemidesmus indicus</i> (L.) R. Br.	Periplocaceae	NTH(S)
98.	<i>Hibiscus lobatus</i> J. A. Murr.	Malvaceae	V
99.	<i>Indigofera cassioides</i> Rottler ex. DC.	Papilionaceae	V
100.	<i>Ipomoea cairica</i> (L.) Sweet. Hort.	Convolvulaceae	LC
101.	<i>Jatropha curcas</i> L.	Euphorbiaceae	V
102.	<i>Justicia procumbens</i> L.	Acanthaceae	V
103.	<i>Kalanchoe pinnata</i> Lamk.	Crassulaceae	V
104.	<i>Kigelia pinnata</i> DC.	Bignoniaceae	V
105.	<i>Lagerstroemia parviflora</i> Roxb.	Lythraceae	LC
106.	<i>Lagerstroemia reginae</i> Roxb.	Lythraceae	LC
107.	<i>Lawsonia inermis</i> L.	Lythraceae	V
108.	<i>Limonia acidissima</i> L.	Rutaceae	NTH(S)
109.	<i>Litchi chinensis</i> Sonner.	Sapindaceae	NTH(S)
110.	<i>Madhuca indica</i> J. Gmelin.	Sapotaceae	LC
111.	<i>Manilkara hexendra</i> Roxb.	Sapotaceae	V
112.	<i>Martynia annua</i> L.	Martyniaceae	LC
113.	<i>Melia azadirachta</i> L.	Meliaceae	V
114.	<i>Michelia champaca</i> L.	Magnoliaceae	V
115.	<i>Mimosa himalayana</i> Gamble.	Mimosaceae	V
116.	<i>Mimosa pudica</i> L.	Mimosaceae	V
117.	<i>Mimusops elengi</i> L.	Sapotaceae	V
118.	<i>Moringa oleifera</i> Lamk.	Moringaceae	V
119.	<i>Morus alba</i> L.	Moraceae	V
120.	<i>Mucuna pruriens</i> (L.) DC.	Papilionaceae	E
121.	<i>Murraya koenigii</i> (L.) Spreng.	Rutaceae	LC

122.	<i>Nelumbo nucifera</i> Gaertner.	Rubiaceae	LC
123.	<i>Nigella sativa</i> L.	Ranunculaceae	R
124.	<i>Nyctanthus arbortristis</i> L.	Nyctanthaceae	LC
125.	<i>Ocimum basilicum</i> L.	Lamiaceae	V
126.	<i>Ocimum cannum</i> Sims.	Lamiaceae	NTH(S)
127.	<i>Ocimum grassiticimum</i> Linn.	Lamiaceae	V
128.	<i>Ocimum sanctum</i> L. Mant.	Lamiaceae	NTH(S)
129.	<i>Oxalis corniculata</i> L.	Oxalidaceae	LC
130.	<i>Passiflora caerulea</i> L.	Passifloraceae	R
131.	<i>Passiflora foetida</i> L.	Passifloraceae	V
132.	<i>Peltophorum pterocarpum</i> (DC.) Backer ex. K. Heyne.	Caesalpiniaceae	V
133.	<i>Phyllanthus amarus</i> Schum.& Thoun.,	Euphorbiaceae	LC
134.	<i>Phyllanthus officinalis</i> L.	Euphorbiaceae	NTH(S)
135.	<i>Physalis minima</i> L.	Solanaceae	LC
136.	<i>Pongamia pinnata</i> (L.) Pietre.	Papilionaceae	LC
137.	<i>Prosopis juliflora</i> (SW.) DC.	Mimosaceae	NTH(S)
138.	<i>Pterocarpus marsupium</i> Roxb.	Papilionaceae	V
139.	<i>Pterospermum acerifolium</i> Willd.	Sterculiaceae	V
140.	<i>Rauwolfia serpentina</i> (L.) Benth. Ex.. Kurz.	Apocynaceae	E
141.	<i>Ricinus communis</i> L.	Euphorbiaceae	LC
142.	<i>Santalum album</i> L.	Santalaceae	E
143.	<i>Sapindus mukorossi</i> Gaertn.	Sapindaceae	V
144.	<i>Saraca asoca</i> Roxb.	Caesalpiniaceae	E
145.	<i>Semecarpus anacardium</i> L.	Anacardiaceae	V
146.	<i>Sesbania sesban</i> (L.) Merr.	Papilionaceae	E
147.	<i>Shorea robusta</i> Gaertn.	Dipterocarpiaceae	LC
148.	<i>Sida acuta</i> Burm.	Malvaceae	LC
149.	<i>Sida cordata</i> (Burm. f.) Borss.	Malvaceae	LC
150.	<i>Sida cordifolia</i> L.	Malvaceae	LC
151.	<i>Smilax zeylanica</i> L.	Smilacaceae	V
152.	<i>Spathodea campanulatus</i> Roxb.	Bignoniaceae	V
153.	<i>Spergula arvensis</i> L.	Caryophyllaceae	V
154.	<i>Sphaeranthus indicus</i> L.	Asteraceae	LC
155.	<i>Sterculia urens</i> Roxb.	Sterculiaceae	V
156.	<i>Stevia rebaudiana</i> Bertoni.	Asteraceae	V
157.	<i>Syzygium cumini</i> L.	Myrtaceae	NTH(S)
158.	<i>Tabebuia chrysantha</i> (Jacq.) & G. Nicholson.	Bignoniaceae	R
159.	<i>Tecoma stans</i> (L.) H.B. & K.	Bignoniaceae	V
160.	<i>Tectona grandis</i> L. f.	Verbenaceae	LC
161.	<i>Tephrosia purpurea</i> (L.) Pers.	Papilionaceae	V
162.	<i>Terminalia arjuna</i> (DC.) Wight & Arn.	Combretaceae	NTH(S)
163.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	V
164.	<i>Terminalia catappa</i> L.	Combretaceae	V
165.	<i>Terminalia chebula</i> Retz.	Combretaceae	V
166.	<i>Terminalia crenulata</i> Roth.	Combretaceae	V
167.	<i>Thespesia populnea</i> (L.) Soland. Ex. Corr.	Malvaceae	E
168.	<i>Tinospora cordifolia</i> Willd.	Menispermaceae	V
169.	<i>Tribulus terrestris</i> L.	Zygophyllaceae	E
170.	<i>Vernonia cinerea</i> (L.) Less.	Asteraceae	LC
171.	<i>Vigna trilobata</i> L.	Papilionaceae	LC
172.	<i>Vitex negundo</i> L.	Verbenaceae	LC
173.	<i>Woodfordia fruticosa</i> (L.) Kurz.	Lythraceae	NTH(S)
174.	<i>Wrightia arborea</i> Dennst.	Euphorbiaceae	V
175.	<i>Wrightia tinctoria</i> (Roxb.) R. Br.	Euphorbiaceae	R
176.	<i>Zizyphus oenoplia</i> (L.) Mill.	Rhaphanaceae	LC

Legends: T= Threatened, CR= Critically Endangered, E =Endangered, R = Rare, NTH (S) = Not Threatened but susceptible, LC = Least Concern, V= Vulnerable, R= Rare.

Threatened =00, Critically Endangered = 01, Endangered = 22, Vulnerable 80. Not Threatened susceptible =24, Least Concern = 46, Rare = 04

Important noteworthy documentation worked on threatened medicinal plants [13, 14, 15, 16]. Therefore, the present work was undertaken.

Similarly, Table No. 01 data revealed that the some important plants which were belonging to critically endangered, endangered, vulnerable, not threatened (susceptible), least concern are as shown in the table above:

Critically Endangered (CR)

Argyrea nervosa (Brun. f.) Roj.Hort.

Endangered (EN)

Abrus precatorius L., *Andrographis paniculata* (Burm.f.) Wall ex. Ness., *Annona muricata* Mill., *Annona reticulata* L., *Aristolochia indica* L., *Artabotrys hexapetalus* L. f., *Artocarpus lakoocha* Roxb., *Asparagus racemosus* Willd., *Cardiospermum helicacabum* L., *Costrus speciosus* (Koenig) Sm. Trans., *Euphorbia tirucalli* L., *Ficus carica* L., *Ficus microcarpa* L. f., *Gloriosa superba* L., *Grevillea robusta* Conn. in R. Br., *Mucuna pruriens* (L.) DC., *Rauwolfia serpentina* (L.) Benth. Ex.Kurz., *Santalum album* L., *Saraca asoca* Roxb., *Sesbania sesban* (L.) Merr., *Thespesia populnea* (L.) Soland. Ex. Corr. and *Tribulus terrestris* L.

Vulnerable (VL)

Adhatoda zeylanica Medicus Hist. Commeal., *Alangium salvifolium* (L. f.) Wang., *Aloe barbadensis* Mill., *Alstonia scholaris* R. Br., *Amorphophallus campanulatus* L., *Anacardium occidentale* L., *Bacopa monnieri* (L.) Pannel. Proc., *Barleria cristata* L., *Bombax insigne* Wall., *Butea superba* Roxb., *Calotropis gigantea* (L.) R. Br., *Canna indica* L., *Careya arborea* Roxb., *Carrisa congesta* Wight., *Ceiba pentandra* (L.) Gaertn., *Celastrus paniculata* Willd., *Centella asiatica* L., *Cestrum nocturnum* L., *Cissampelos pareira* L., *Cissus quadrangularis* L. Mantiss., *Cleome gynandra* L., *Clerodendrum indicum* (L.) Kuntze., *Clerodendrum serratum* (L.) Moon., *Clitoria ternatea* L., *Crotalaria hirsuta* Willd., *Crotalaria juncea* L., *Cucumis sativus* L., *Curcuma amada* Roxb., *Cuscuta reflexa* Roxb., *Datura innoxia* Mill., *Datura stramonium* L., *Desmodium dichotomum* (Willd.) DC., *Desmodium gangeticum* (L.) DC., *Dioscorea bulbifera* L., *Diospyros melanoxylon* Roxb. Cor., *Diplocyclos palmatus* L., *Ficus racemosus* L., *Ficus religiosa* L., *Ficus tinctoria* Forst.f., *Gliricidia sepium* (Jacq.)Kunth. Ex. Walp., *Gmelina arborea* Roxb., *Gymnema sylvestre* (Retz.) R. Br. ex. Schult., *Hibiscus lobatus* J. A. Murr., *Indigofera cassioides* Rottler ex. DC., *Ipomoea hederacea* Jacq., *Jatropha curcas* L., *Justicia procumbens* L., *Kalanchoe pinnata* Lamk., *Kigelia pinnata* DC., *Lawsonia inermis* L., *Manilkara hexendra* Roxb., *Melia azadirachta* L., *Michelia champaca* L., *Mimosa himalayana* Gamble., *Mimosa pudica* L., *Mimusops elengi* L., *Moringa oleifera* Lamk., *Morus alba* L., *Ocimum basilicum* L., *Ocimum grassiticimum* Linn., *Passiflora foetida* L., *Peltophorum pterocarpum* (DC.) Backer ex. K. Heyne., *Pterocarpus marsupium* Roxb., *Pterospermum acerifolium* Willd., *Sapindus mukorossi* Gaertn., *Semecarpus anacardium* L., *Smilax zeylanica* L., *Spathodea campanulatus* Roxb., *Spergula arvensis* L., *Sterculia urens* Roxb., *Stevia rebaudiana* Bertoni., *Tecoma stans* (L.) H.B. & K., *Tephrosia purpurea* (L.)Pers., *Terminalia bellirica* (Gaertn.) Roxb.,

Terminalia catappa L., *Terminalia chebula* Retz., *Terminalia crenulata* Roth., *Tinospora cordifolia* Willd. And *Wrightia arborea* Dennst.

Least Concern (LC)

Acacia nilotica (L.) Del. Descr., *Achyranthes aspera* L., *Aegle marmelos* (L.) Correa., *Albizia lebbeck* (L.) Benth. *Albizia procera* (Roxb.) Benth., *Anogeissus latifolia* (DC.) Wallich ex. Beddone., *Argemone mexicana* L., *Azadirachta indica* A. Juss., *Bauhinia malabarica* Roxb., *Bauhinia purpurea* L., *Blumea lacera* (Burm.f.) DC., *Blumea oxyodonta* DC., *Boerhavia diffusa* L., *Butea monosperma* (Lamk.)Taub., *Calotropis procera* (Ait.) R. Br., *Carrisa spinarum* L., *Cassia fistula* L., *Cassia tora* L., *Coccinea grandis* (L.) Voigt., *Datura metel* L., *Echinops echinatus* Roxb., *Ficus benghalensis* L., *Helicteres isora* L., *Ipomoea cairica* (L.) Sweet. Hort. *Lagerstroemia parviflora* Roxb., *Lagerstroemia reginae* Roxb., *Madhuca indica* J. Gmelin., *Martynia annua* L., *Murraya koenigii* (L.) Spreng., *Nelumbo nucifera* Gaertner., *Nyctanthus arbortristis* L., *Oxalis corniculata* L., *Phyllanthus amarus* Schum.& Thoun., *Physalis minima* L., *Pongamia pinnata* (L.) Pietre., *Ricinus communis* L., *Shorea robusta* Gaertn., *Sida acuta* Burm., *Sida cordata* (Burm. f.) Borss., *Sida cordifolia* L., *Sphaeranthus indicus* L., *Tectona grandis* L. f., *Vernonia cinerea* (L.) Less., *Vigna trilobata* L., *Vitex negundo* L. and *Zizyphus oenoplia* (L.) Mill.

Not Threatened but susceptible (NTH,S)

Abutilon indicum (Linn.) Sweet., *Acacia catechu* (L. f.) Will. *Annona squamosa* L., *Bauhinia variegata* L., *Bombax ceiba* L., *Boswellia serrata* Roxb. ex. Colebr., *Buchanania lazan* Sprengel., *Cassia occidentalis* L., *Dalbergia latifolia* Roxb., *Eclipta prostrata* L., *Erythrina indica* Lamk., *Erythrina variegata* Linn., *Helioropium indicum* L., *Heliotropium ovalifolium* Forsk., *Hemidesmus indicus* (L.) R. Br., *Limonia acidissima* L., *Litchi chinensis* Sonner., *Ocimum cannum* Sims., *Ocimum sanctum* L. Mant., *Phyllanthus officinalis* L., *Prosopis juliflora* (SW.) DC., *Syzygium cumini* L., *Terminalia arjuna* (DC.) Wight & Arn., *Woodfordia fruticosa* (L.) Kurz.

4. Conclusion

The taxonomical studies and medicinal plants for conservation through ethnobotanical studies and knowledge to different local communities. It is a fact that plants and human beings are closely related to each other. Man's need from the nature, utility of plant resources and environmental degradation due to various factors cause a great damage to the floristic diversity. It is necessary to evolve effective conservation strategies of plants so that they can be conserved and used sustainable in the interest of humanity. Basic knowledge about the threatened, endemic, medicinal species is very much essential for their conservation.

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