Species

Inventory list of plant diversity in Tropical dry deciduous forest of Sri Lankamalleswara wildlife sanctuary Andhra Pradesh

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ABSTRACT

The present study includes the information on inventory of plant species. The enumeration was carried out in 10 ha in Sri Lankamalleswara wild life sanctuary forest by laying a total of 125 quadrates (20 X 20m) sixw. A total of 520 plant species belonging to 328 genera and 87 families were recorded; which include 243 herbs, 133 trees, 49 shrubs, 56 vines and 39 lianas. The inventory includes 53 endemic plants of peninsular India and nine threatened plants that are included in IUCN Red List category.

Keywords: Dry deciduous forests, Plant diversity, Quadrats, Wildlife sanctuary

1. INTRODUCTION

Biodiversity includes diversity within species, between species and the ecosystems in a region among them species diversity is the fundamental level of biodiversity and it emphasizes on the enumeration of the number of species in a particular region. Majority of the terrestrial ecosystem biodiversity is present in forests and thus conservation of forests is synonymous with conservation of biodiversity (Singh and Khushwaha, 2008). Indian forests constitute approximately 18043 flowering plant species, 4303 endemic plant species, 1052 species in different red list categories and 77 critically endangered plants (Ravikanth et al., 2018). But natural forests encompassing the rich biodiversity are losing their diversity due to deforestation, forest fragmentation, over exploitation, invasive species and climate change (Barik et al., 2018). Thus, floristic surveys are needed to understand the drivers of variation in plant diversity at various forest types and scales.

By signing the "Convention on Biodiversity" in 1992, India recognizes the assessment of plant resources by forest inventories as an effective tool for achieving crucial information for their conservation and management (Ayyappan and Parthasarathy, 1999). Further, it is considered that threatened and endemic species are good indicators of biodiversity distribution on a regional scale (Barik et al., 2018). A list of 2704 threatened plants belonging to 1031 genera and 217 families are reported from India. Among them, Orchids and Begonias represented higher percent among the threatened plants while Chhattisgarh state featured high taxonomic richness of threatened plants (Barik et al., 2018).

DISCOVERY SCIENTIFIC SOCIETY

In India, 21.3% of the total geographical area is under forest cover and out of this 1,62,099.5 Km^2 (4.93% of the total area) is under protected area network featuring 104 National parks, 544 Wild life sanctuaries, 46 community reserve area, 77 conservation reserves. Among them wild life sanctuaries comprise of larger extent of area 118931.80 Km^2 (3.62%) and they are demarcated from reserve forests to protect certain rare species/habitats (WII-ENVIS, 2021). The wildlife protected areas in India are once originally reserve forests and hence have had a history of exploitation and certain rights are provided for the people in the form of collection of non-timber forest products leading to disturbances in addition to back ground natural disturbance in these forests (Tripathi and Singh, 2009). Hence, for fulfilling the conservation goals under REDD+ mechanism of UNFCCC which focuses on preserving forest diversity, forest carbon stock as well as socio-economic upliftment of forest dependent people; the information on plant resources and relationship between vegetation and environment will be of most useful (Aye et al., 2014). Thus, information on plant diversity of wildlife protected areas is of immense importance to design the conservation strategies to strengthen the conservation modules by involving the local people in these protected areas.

Study Area

The hill ranges of Sri Lankamalleswara Wild life Sanctuary (SLKM) are part of the Southern Eastern Ghats (Figure 1); which lies in between $14^0 30' - 14^0 42' N$, $78^0 56' - 79^0 00' E$ in Kadapa district of Andhra Pradesh. They form island (lanka) like hill ranges between Nallamalais and Sheshachalam hill ranges of Southern Eastern Ghats. The hill ranges are within an elevation range of 160-620m. The Lankamalleswara hill ranges start from the north of penna river and rise into broken hill ranges and dips to the level of plains along the Mydukur-Badvel road. These forests support the only known population of almost extinct rare bird Jerdon's courser (*Cursorius bitorquatus*, Rawat 1997). In order to protect the rare bird and conserve the dry deciduous forest for the ecosystem services, an area of 464.42 km^2 was delineated from Reserve Forest and wild life sanctuary protection status was provided to this area. The hill ranges comprise of mainly dry deciduous forest type - 5-A/C-3 (5: Tropical dry deciduous forest; A/C-3 southern dry mixed deciduous forest). The typical dry mixed deciduous forest type and open scrub forest with a complex of *Pterocarpus santalinus* - *Anogeissus latifolia* is present in the core areas and tropical thorn dry mixed deciduous forest are found in the foot hills and annual fires during summer are common (Rawat, 1997).

The study area receives a mean annual rain fall of 690-760 mm. The climate is wet and windy during the monsoon with a temperature range in between $28^0C - 43^0C$. The rainfall pattern is dissymmetric as the area receives rain fall mainly (84%) from S-W monsoon (June to September) peaking during the August month and also a lesser amount (16%) of rainfall from North East monsoon (November to December). The minimum and maximum temperature range during hot summer is 29^0C to 46^0C and during winter the minimum and maximum temperature range lies between 13^0C to 29^0C. The study area comprises of shallow red ferruginous loam soil derived from Shales, Quartzites and Sandstone primary rocks.

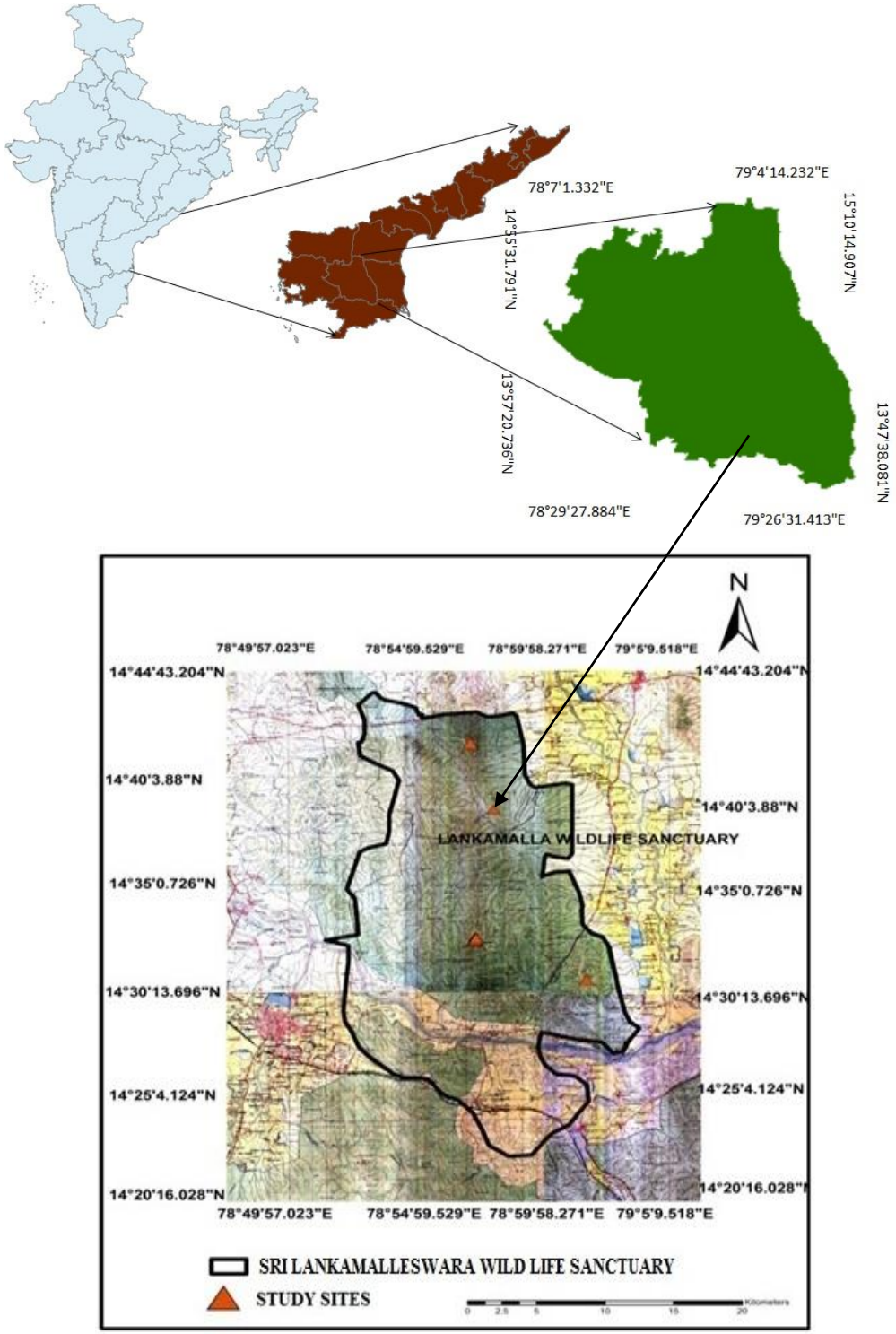


Figure 1 Study Area of showing - Sri Lankamalleswara wildlife sanctuary, Kadapa, Andhra

2. FIELD METHODOLOGY

The enumeration of all plants life forms in SLKM sanctuary was carried out in ten hectares. Stratified random sampling approach was undertaken to enumerate the plant species. A total of 25 (20 X 20m – 1ha) quadrates making to 1-ha were laid at ten sites with increasing elevation totaling to ten hectares. In each 20 X 20m quadrat, all trees > 30cm (length) girth at breast height (1.37m) were inventoried, shrubs and lianas were recorded in 5 X 5m sub-quadrat and herbs are inventoried in 1 X 1m sub-quadrat within the main quadrat.

3. RESULTS

Plant species richness

A total of 520 plant species representing 87 families and 328 genera were recorded in the floristic survey in Sri Lankamalleswara wildlife sanctuary (Appendix I). Among them herbs formed the species rich life form with 243 species (46.5%) belonging to 39 families and 145 genera. Trees represented nearly a quarter of the (133 tree species; 25.7%) total species that belonged to 96 genera and 43 families and 49 shrub species accounted for 9.5% (24 families and 39 genera) of total species. Among climbers, 56 vine species (11%, herbaceous climbers) belonging to 36 genera and 13 families and 39 woody climbers (lianas; 7.5%) representing 34 genera and 19 families were enumerated.

Among the recorded 87 families, Fabaceae (Faboidae) emerged as the species rich family comprising of 61 species (13%), which include 37 herbs, 14 vines, six trees and four lianas. Fabaceae also included the largest genus Crotalaria comprising of 9 species, followed by Indigofera (with 8 species), Rhynchosia and Desmodium are endowed with 7 species each. Euphorbiaceae ranked as the second most dominant family (42 species) followed by Acanthaceae (37 species). The top fifteen families included (304 species; 58.7%) of the total species. About 30 families are represented by single species, 20 families comprised of 2-3 species and ten families constituted 10-61 species. Life-form wise, Fabaceae (Faboidae, 37 species) emerged as the dominant family among herbs followed by Acanthaceae (36 species) and Poaceae (30 species). Euphorbiaceae (12 species), Rubiaceae (10 species) and Moraceae (7 species) represented the most common tree families and among shrubs Euphorbiaceae (9 species), Rubiaceae (9 species) and Verbenaceae (4 species) formed the dominant families. Among lianas, Asclepiadaceae (7 species), Capparaceae (4 species) and Fabaceae (4 species) constituted the dominant families and among vines, Fabaceae (14 species), Asclepiadaceae (8 species) and Vitaceae (6 species) represented the dominant families.

The inventory of 53 endemic plant species (9.8%) that belonged to 41 genera and 21 families strengthen the conservation value of Sri Lankamalleswara wildlife sanctuary. They include 30 herbs, 19 trees, three vines and one liana. The analysis revealed that, 14 endemic plants species (26%) are exclusive to Southern Eastern Ghats and 39 endemic plants (74%) are distributed in peninsular India. Further, nine endemic plants are placed under different IUCN red list threatened categories (Nayar and Sastry, 1990); they include, five species such as *Albizia thompsoni, Boswellia ovalifoliolata, Ceropegia spiralis, Croton scabiosus* and *Eriolaena lushingtonii* in vulnerable category and four species namely *Decalepis hamiltonii, Decaschistia rufa, Pterocarpus santalinus* and *Syzygium alternifolium* under Endangered species category. In addition, the inventory has recorded four species - *Brachystelma annamacharyae*, *Brachystelma ciliatum, Brachystelma pullaiahi* and *Brachystelma seshachalamense* and *Brachystelma kadappensis*, Asclepiadaceae which have recently enriched the endemic species list as well as flora of our country.

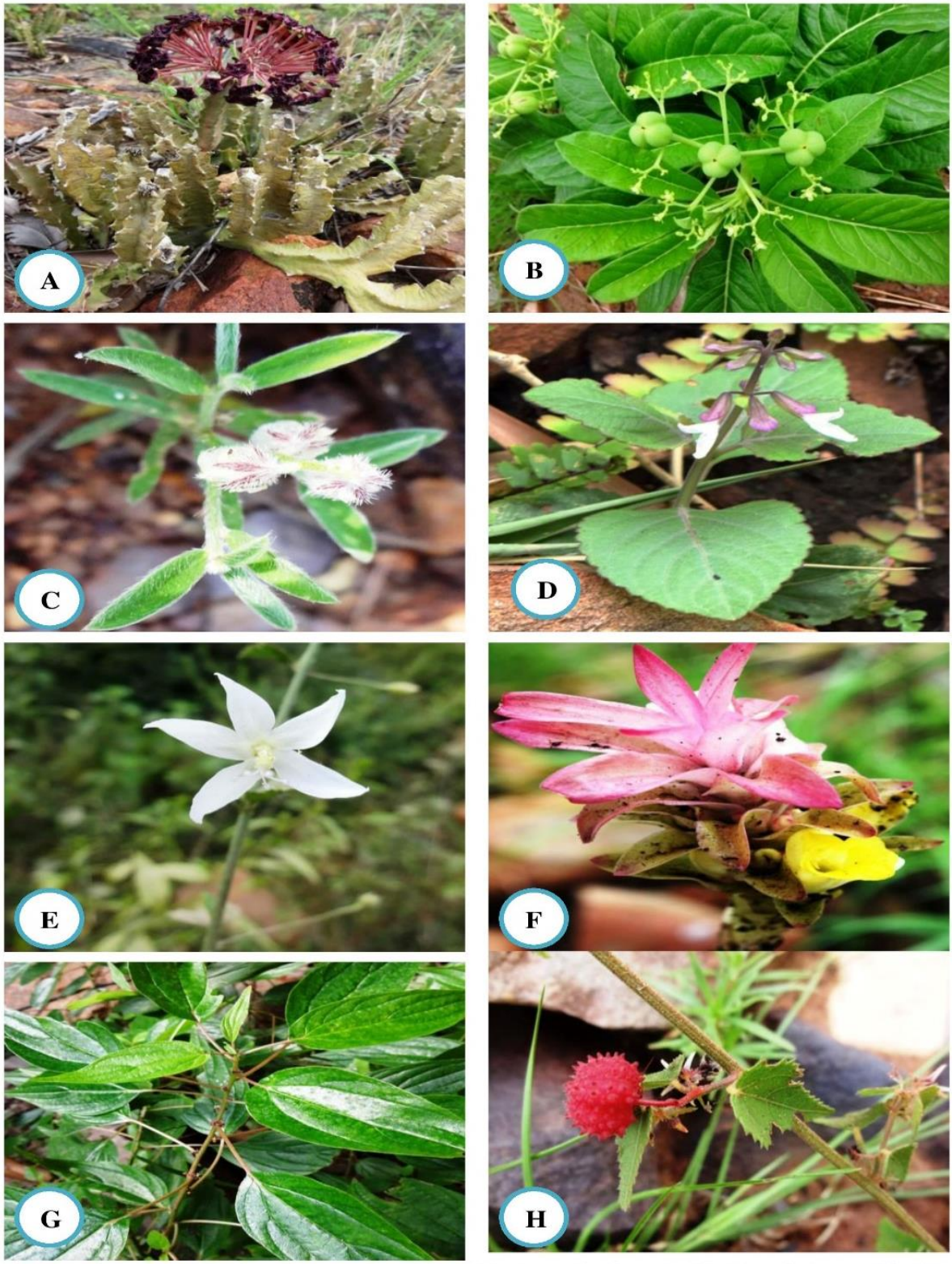


Fig:2 Herb species A) *Caralluma adscendens* (B) *Jatropha heynei* (C) *Crotalaria pusilla* (D) *Plectranthus barbatus* (E) *Pavonia odorata* (F) *Curcuma neilgherensis* (G) *Pouzolzia auriculata* (H) *Byttneria herbacea* .

Figure 2 Herb species

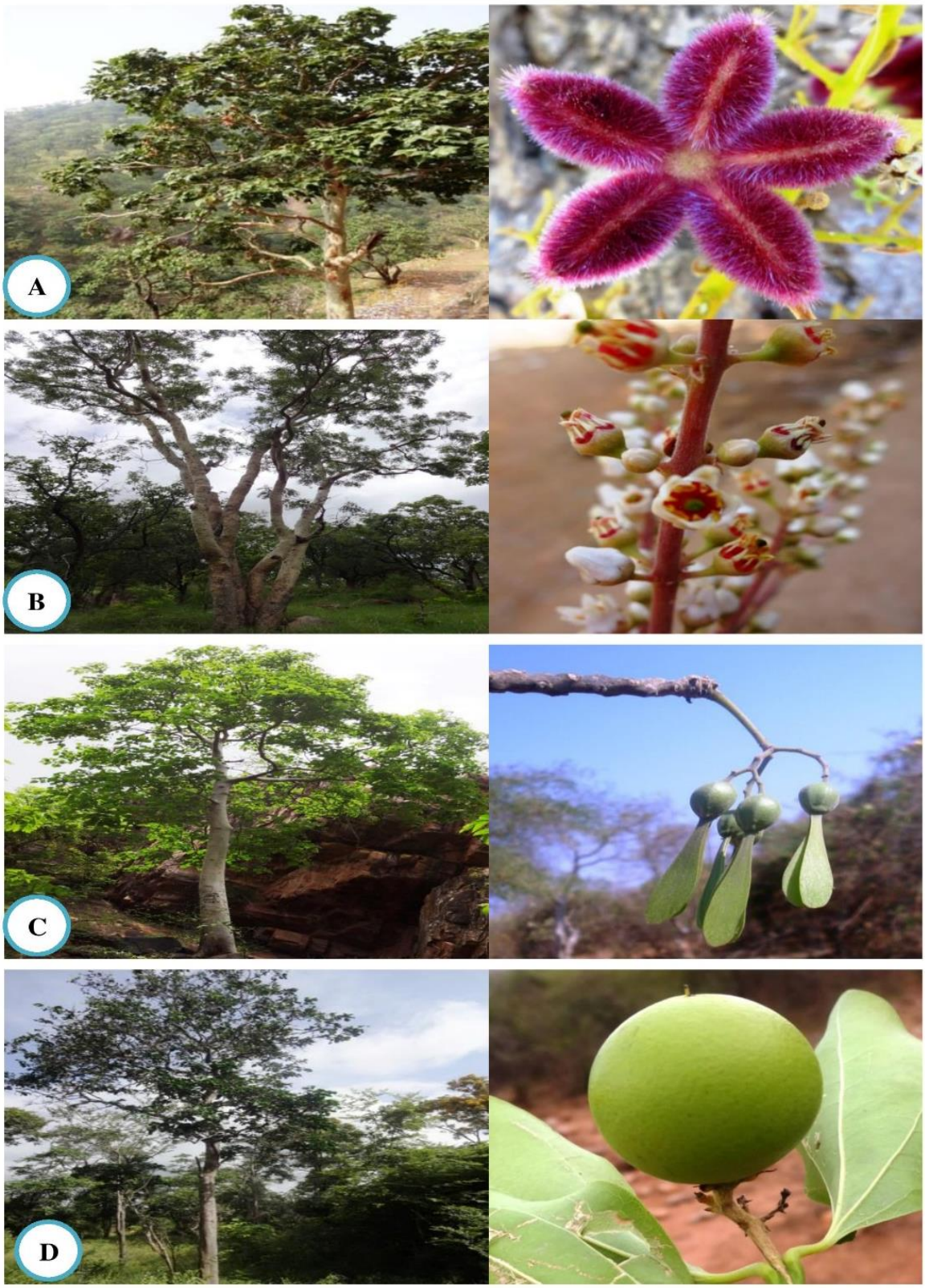
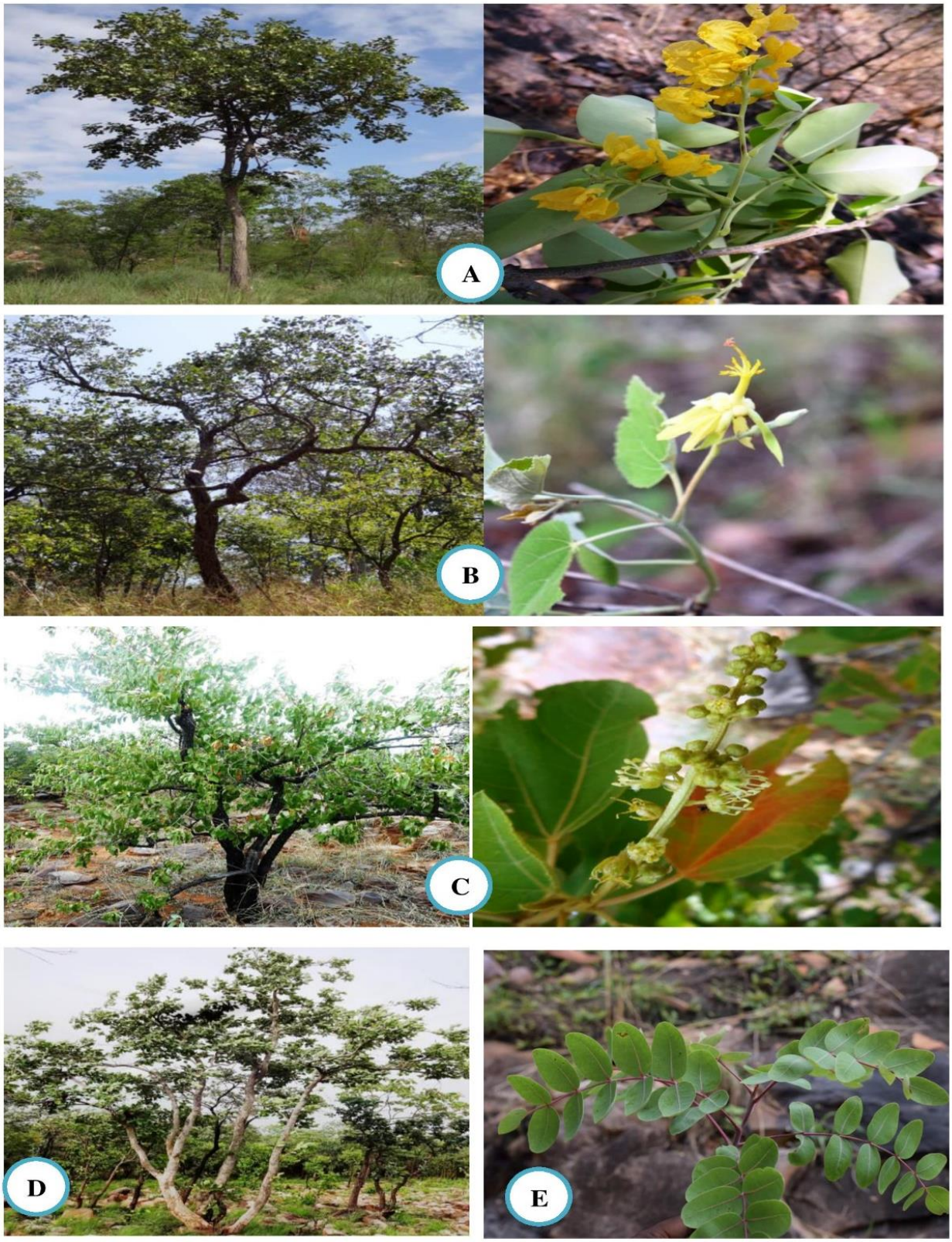


Fig:3. Tree species A) *Sterculia urens* B) *Boswellia serrata* C) *Gyrocarpus americanus* D) *Strychnos nux-vomica*.

Figure 3 Tree species

Fig: 4. Lianas species A) *Leoseneriella obtusifolia* B) *Plecospermum spinosum* C) *Capparis sepiaria* D) *Hiptage benghalensis* E) *Hugonia mystax* F) *Pterolobium hexapetalum* G) *Combretum albidum* H) *Ventilago maderaspatana*.

Figure 4 Lianas species



Endemic tree species. A) *Pterocarpus santalinus* B) *Eriolaena lushingtonii* C) *Croton scabiosus* D) *Syzygium alternifolium* E) *Boswellia ovalifoliolata*.

Figure 5 Endemic tree species

4. DISCUSSION

Tropical forests contain greatest diversity in terms of species, genetic material and ecological processes of all ecosystems. Floristic inventories carried out at either large scale or small scale in tropical forests has the potential to provide information useful for forest conservation (Pragasan and Parthasarathy, 2010). The present floristic inventory in ten hectares of Sri Lankamalleswara wildlife sanctuary resulted in 520 plant species with 133 tree species. The large-scale assessment carried out in 222 ha in Northern Eastern Ghats of Odisha has resulted in 882 plant species and 263 tree species (Panda et al., 2013) and in 60 ha of Nayagarh forests of Northern Eastern Ghats yielded 177 tree species (Sahoo et al., 2017). While in southern Eastern Ghats of Tamil Nadu, 272 tree species were recorded (Pragasan and Parthasarathy, 2010) and 71 tree species in dry deciduous forests of Mudumalai wildlife sanctuary (Sukumar et al., 1992). Similarly, in Nallamalais the largescale floristic assessment in 88 ha has resulted in 729 herb species (Sadasivaiah, 2009) and 249 tree species (Basha, 2009) and Sheshachalam hill ranges featured 222 tree species (Babu and Rao, 2010). These results indicate higher level of tree species in the tropical dry forests as the assessment has covered different vegetation ranges from moist to dry forests along varied altitudes and disturbance levels.

The mean tree species richness of 66 tree species/ha and range of 36 to 105 tree species/ha is in the comparable range at 30cm gbh reported from dry forests across India. The results show that dry deciduous forests of the present study area and high tree species richness than the typical dry forests that lie besides of Satpura ranges as 49 tree species were recorded in Vindhyan hills (Sagar et al., 2003) 38 tree species in Sariska Tiger reserve (Yadav & Gupta, 2006), 50 tree species in Aravali hill ranges of Rajasthan (Kumar et al., 2011), 48 tree species in Vindhyan hills (Chaturvedi et al., 2011), 93 species with a range of 18-37 tree species in Aravali hills of Udaipur (Kumar et al., 2010).

Wildlife sanctuaries are one of the in-situ methods of conserving natural habitats for protecting biodiversity which are having ecological and conservation significance with some restricted human activities. In India there are about 544 wild life sanctuaries covering 3.62% of the total geographical area (WII ENVIS - 2021) and there are 13 wildlife sanctuaries in Andhra Pradesh. The plant diversity in wildlife sanctuaries is defined by the present and equally the past disturbance regime (Tripathi and Singh, 2009). The floristic diversity in Bhimashankar wildlife sanctuary yielded 1142 plant species with a share of 19% of endemic species (Savitha and Sanjaykumar, 2017). Among dry deciduous forests, floristic inventory in Kawal wildlife sanctuary yielded 177 tree species (Murthy, 2015), in Bhoramdeo wildlife sanctuary 65 tree species were recorded (Baboo et al., 2017). In North-East India, Trishna wild life sanctuary in Tripura comprised of 289 tree species (Majumdar and Dutta, 2014) and Talle wildlife sanctuary of Arunachal Pradesh consisted of 63 tree species (Yam and Tripathi, 2016). The presence of 520 plant species including 133 tree species indicate that Sri Lankamalleswara wildlife sanctuary comprise of moderate tree and plant species richness.

5. CONCLUSIONS

The present study includes the information on inventory of plant species in Sri Lankamalleswara wildlife sanctuary. A total of 520 plant species belonging to 328 genera and 87 families were recorded; which include 243 herbs, 133 trees, 49 shrubs, 56 vines and 39 lianas. The inventory includes 53 endemic plants of peninsular India and nine threatened plants included in IUCN Red List category. Endemic plants form 10% of the total species richness of SLKM and comprises of 46% of the endemic plants that occur in southern Eastern Ghats. Fabaceae is the species rich family followed by Euphorbiaceae, Acanthaceae and Poaceae; while the top fifteen families represented 58.7% (304 species) of the total species richness and 30 families were found with single species. In regard to increase in altitude, *Anogeissus latifolia* is the dominant tree in the foot hills with codominants like *Pterocarpus santalinus-Chloroxylon swietenia- Dalbergia paniculata-Polyalthia cerassoides* and in middle elevation the dominant tree is *Pterocarpus santalinus* featuring with codominants like *Chloroxylon swietenia- Anogeissusl latifolia- Buchanania axillaris* and on the top hills the *Pterocarpus santalinus* stood as the dominant tree along with co-dominants like *Terminalia alata- Anogeissus latifolia*. The floristic inventory yielded considerable plant diversity and different combinations of dominants and co-dominants tree species in SriLankamalleswara wildlife sanctuary.

Ethical approval

Plant diversity in Tropical dry deciduous forest of Sri Lankamalleswara wildlife sanctuary Andhra Pradesh was observed in the study. The ethical guidelines for plants & plant materials are followed in the study for sample collection & identification.

Informed consent

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

Funding

The study has not received any external funding.

Data and materials availability

All data associated with this study are present in the paper.

Appendix 1 Plant diversity in Sri Lankamalleswara Wildlife sanctuary

S. No	Name of the species	Family	Habit
1	*Acacia chundra* (Roxb. ex Rottl.) Willd.	Mimosaceae	Tree
2	*Acacia leucophloea* (Roxb.) Willd.	Mimosaceae	Tree
3	*Actinodaphne madraspatana* Beed. ex Hook. f.	Lauraceae	Tree
4	*Aegle marmelos* (L.) Cor.	Rutaceae	Tree
5	*Aglaia elaegnoidea* (Juss.) Benth.	Meliaceae	Tree
6	*Alangium salvifolium* (L. f.) Wang.	Alangiaceae	Tree
7	*Albizia amara* (Roxb.) Boiv.	Mimosaceae	Tree
8	*Albizia lebbeck* (L.) Benth.	Mimosaceae	Tree
9	*Albizia odoratissima* (L. f.) Benth.	Mimosaceae	Tree
10	*Albizia thompsoni* Brandis	Mimosaceae	Tree
11	*Anogeissus latifolia* (Roxb. exDC.) Wall. ExGuill & Perr.	Combretaceae	Tree
12	*Antidesma ghaesembilla* Gaertn.	Stilaginaceae	Tree
13	*Atalantia racemosa* Wt. & Arn.	Rutaceae	Tree
14	*Bauhinia racemosa* Lam.	Caesalpiniaceae	Tree
15	*Boswellia ovalifoliolata* Bal. et Henry	Burseraceae	Tree
16	*Boswellia serrata* Roxb. ex Colebr.	Burseraceae	Tree
17	*Bridelia airy-shawii* P. J. Li.	Euphorbiaceae	Tree
18	*Bridelia cinerascens* Gehrm.	Euphorbiaceae	Tree
19	*Bridelia montana* Roxb.	Euphorbiaceae	Tree
20	*Buchanania axillaris* (Desr.) Ramam.	Anacardiaceae	Tree
21	*Butea monosperma* (Lam.) Taub.	Fabaceae	Tree
22	*Canthium dicoccum* (Gaertn.) Teijsm. & Binn.	Rubiaceae	Tree
23	*Capparis grandis* L. f.	Capparaceae	Tree
24	*Careya arborea* Roxb.	Lecithidaceae	Tree
25	*Cassia fistula* L.	Caesalpiniaceae	Tree
26	*Cassine glauca* (Rottb.) O.Kuntze	Celastraceae	Tree
27	*Ceiba pentandra* (L.) Gaertn.	Bombacaceae	Tree
28	*Celtis philippensis* Blancho	Ulmaceae	Tree
29	*Ceriscoides turgid* (Roxb.) Tirveng.	Rubiaceae	Tree
30	*Chloroxylon swietenia* DC.	Flindersiaceae	Tree
31	*Chukrasia tabularis* Adr.Juss.	Meliaceae	Tree
32	*Cipadessa baccifera* (Roth) Miq.	Meliaceae	Tree
33	*Cleistanthus collinus* (Roxb.) Hook. f.	Euphorbiaceae	Tree
34	*Cochlospermum religiousm* (L.) Alston	Cochlospermaceae	Tree
35	*Commiphora caudate* (Wt. & Arn.) Engler	Burseraceae	Tree
36	*Cordia dichotoma* Forst. & Forst. f.	Cordiaceae	Tree
37	*Cordia macleodii* (Griff.) Hook. f. & Thoms.	Cordiaceae	Tree
38	*Crateve magna* (Lour.) DC.	Capparaceae	Tree

39	*Croton scabiosus* Bedd.	Euphorbiaceae	Tree
40	*Dalbergia latifolia* Roxb.	Fabaceae	Tree
41	*Dalbergia paniculata* Roxb.	Fabaceae	Tree
42	*Deccania pubescens* (Roth.) Tirveng.	Rubiaceae	Tree
43	*Dichrostachys cinerea* (L.) Wight & Arn.	Mimosaceae	Tree
44	*Diospyros chloroxylon* Roxb.	Ebenaceae	Tree
45	*Diospyros ebenum* Koen.	Ebenaceae	Tree
46	*Diospyros melanoxylon*Roxb.	Ebenaceae	Tree
47	*Diospyros montana* Roxb.	Ebenaceae	Tree
48	*Dolichandrone atrovirens* (Roth) Sprague	Bignoniaceae	Tree
49	*Dolichandrone falcata* (Wall. exDC.) Seem	Bignoniaceae	Tree
50	*Drypetes sepiaria* (Wt. & Arn.) Pax & Hoffm.	Euphorbiaceae	Tree
51	*Ehretia aspera* Willd.	Cordiaceae	Tree
52	*Ehretia laevis* Roxb.	Cordiaceae	Tree
53	*Eriolaena lushingtonii* Dunn	Sterculiaceae	Tree
54	*Erythrina stricta* Roxb.	Fabaceae	Tree
55	*Erythroxylum monogynum* Roxb.	Erythroxylaceae	Tree
56	*Ficus amplissima* Smith	Moraceae	Tree
57	*Ficus arnottiana* (Miq) Miq.	Moraceae	Tree
58	*Ficus gibbosa* BI.	Moraceae	Tree
59	*Ficus microcarpa* L. f.	Moraceae	Tree
60	*Ficus mollis* Vahl	Moraceae	Tree
61	*Ficus tinctoria* Forster f.	Moraceae	Tree
62	*Ficus virens* Ait. Hort.	Moraceae	Tree
63	*Flacourtia ramontchi* L'Herit.	Flacourtiaceae	Tree
64	*Gardenia gummifera* L. f.	Rubiaceae	Tree
65	*Gardenia latifolia* Ait.	Rubiaceae	Tree
66	*Gardenia resinifera* Roth	Rubiaceae	Tree
67	*Garuga pinnata* Roxb.	Burseraceae	Tree
68	*Givotia moluccana* (L.) Sreem.	Euphorbiaceae	Tree
69	*Glochidion zeylanicum* (Gaertn.) Juss.	Euphorbiaceae	Tree
70	*Grewia damine* Gaertn.	Tiliaceae	Tree
71	*Grewia flavescens* Juss.	Tiliaceae	Tree
72	*Grewia tiliifolia* Vahl.	Tiliaceae	Tree
73	*Gyrocarpus americanus* Jacq.	Hernandiaceae	Tree
74	*Haldinia cordifolia* (Roxb.) Ridsd.	Rubiaceae	Tree
75	*Hardwickia binata* Roxb.	Caesalpiniaceae	Tree
76	*Holarrhena pubescens* (Buch. - Ham.) Wall.	Apocynaceae	Tree
77	*Holoptelea integrifolia* (Buch. - Ham.) Wall.exDon	Ulmaceae	Tree
78	*Hymenodictyon orixense* (Roxb.) Mabb.	Rubiaceae	Tree
79	*Kydia calycina* Roxb.	Malvaceae	Tree
80	*Lagerstroemia parviflora* Roxb.	Lythraceae	Tree
81	*Lannea coromandelica* (Houtl.) Merr.	Anacardiaceae	Tree
82	*Lepisanthes tetraphylla* (Vahl.) Radlk.	Sapindaceae	Tree
83	*Limonia acidissima* L.	Rutaceae	Tree
84	*Litsea glutinosa* (Lour.) C. B. Clarke.	Lauraceae	Tree
85	*Madhuca indica* J. Gmelina	Sapotaceae	Tree
86	*Maerua apetala* (Roth) Jacobs	Capparaceae	Tree
87	*Mallotus philippensis* (Lam.) Muell. - Arg.	Euphorbiaceae	Tree

88	*Mangifera indica* L.	Anacardiaceae	Tree
89	*Manilkara hexandra* (Roxb.) Dub.	Sapotaceae	Tree
90	*Miliusa tomentosa* (Roxb).	Annonaceae	Tree
91	*Mitragyna parvifolia* (Roxb.) Korth.	Rubiaceae	Tree
92	*Morinda pubescens* J. E. Smith	Rubiaceae	Tree
93	*Naringi alata* (Wall.exWt & Arn.) Ellis	Rutaceae	Tree
94	*Naringi crenulata* (Roxb.) Nicolson	Rutaceae	Tree
95	*Ochna obtusata* DC.	Ochnaceae	Tree
96	*Phoenix loureirii* Kunth, Enum.	Arecaceae	Tree
97	*Phyllanthus emblica* L.	Euphorbiaceae	Tree
98	*Phyllanthus indofischeri* Bennet	Euphorbiaceae	Tree
99	*Pleurostylia opposita* (Wall.) Alston	Celastraceae	Tree
100	*Polyalthia cerasoides* (Roxb.) Bedd.	Annonaceae	Tree
101	*Premna latifolia* Roxb.	Verbenaceae	Tree
102	*Premna tomentosa* Willd.	Verbenaceae	Tree
103	*Pterocarpus marsupium*Roxb.	Fabaceae	Tree
104	*Pterocarpus santalinus* L.f.	Fabaceae	Tree
105	*Pterospermum xylocarpum* (Gaertn.) Sant. & Wagh.	Sterculiaceae	Tree
106	*Sapindus emarginatus* Vahl.	Sapindaceae	Tree
107	*Sapium insigene* (Royle) Trimen	Euphorbiaceae	Tree
108	*Schleichera oleosa* (Lour.) Oken	Sapindaceae	Tree
109	*Schrebera swietenoides* Roxb.	Oleaceae	Tree
110	*Semecarpus anacardium* L. f.	Anacardiaceae	Tree
111	*Shorea roxburghii* G. Don.	Dipterocarpaceae	Tree
112	*Soymida febrifuga* (Roxb.) Juss.	Meliaceae	Tree
113	*Sterculia urens* Roxb.	Sterculiaceae	Tree
114	*Sterculia villosa* Roxb.	Sterculiaceae	Tree
115	*Stereospermum personatum* (Hassk.) Chatter.	Bignoniaceae	Tree
116	*Stereospermum suaveolens* (Roxb.) DC.	Bignoniaceae	Tree
117	*Strychnos nux-vomica* L.	Loganiaceae	Tree
118	*Strychnos potatorum*L. f	Loganiaceae	Tree
119	*Syzygium alternifolium* (Wt.) Walp.	Myrtaceae	Tree
120	*Syzygium cumini* (L.) Skeels	Myrtaceae	Tree
121	*Tectona grandis* L. f.	Verbenaceae	Tree
122	*Terminalia alata* Heyne ex Roxb	Combretaceae	Tree
123	*Terminalia arjuna* Roxb.ex DC.	Combretaceae	Tree
124	*Terminalia bellirica* (Gaertn.) Roxb.	Combretaceae	Tree
125	*Terminalia chebula* Retz.	Combretaceae	Tree
126	*Trema orientalis* (L.)	Ulmaceae	Tree
127	*Vitex altissima* L. f.	Verbenaceae	Tree
128	*Vitex leucoxylon* L. f.	Verbenaceae	Tree
129	*Vitex pinnata* L.	Verbenaceae	Tree
130	*Walsura trifoliata* (Juss.) Harms.	Meliaceae	Tree
131	*Wrightia tinctoria* (Roxb.) R.Br.	Apocynaceae	Tree
132	*Wrigthtia arborea* (Dennst.) Mabb.	Apocynaceae	Tree
133	*Ziziphus xylopyrus* (Retz.) Willd.	Rhamnaceae	Tree

S. No	Name of the species	Family	Habit
1	*Acacia catechu* (L.f.) Willd.	Mimosaceae	Shrub

2	*Acacia torta* (Roxb.) Craib	Mimosaceae	Shrub
3	*Allophylus cobbe* (L.) Raeusch.	Sapindaceae	Shrub
4	*Axonopus compressus* (Sw.) Beauv.	Poaceae	Shrub
5	*Balanitis roxburghii* Planch.	Balanitaceae	Shrub
6	*Bambusa arundinacea* (Retz.) Roxb.	Poaceae	Shrub
7	*Benkera malabarica* (Lam.) Tirveng.	Rubiaceae	Shrub
8	*Cadaba fruticosa* (L.) Druce	Capparaceae	Shrub
9	*Canthium coramandelicum*	Rubiaceae	Shrub
10	*Canthium parviflorum* Lam.	Rubiaceae	Shrub
11	*Carissa spinarum* L. Mant.	Apocynaceae	Shrub
12	*Cassia montana* Heyne ex Roth	Caesalpiniaceae	Shrub
13	*Catunaregum spinosa* (Thunb.) Tirveng.	Rubiaceae	Shrub
14	*Chomelia asiatica* (L.) O. Kuntze.	Rubiaceae	Shrub
15	*Chromolaena odorata* (L.) King & RobinSon.	Asteraceae	Shrub
16	Cissus pallida (Wight & Arn.) Planch. in DC Monog. phan.	Vitaceae	Shrub
17	*Clerodendrum serratum* (L.)	Verbenaceae	Shrub
18	*Dodonaea viscosa* (L.) Jacq.	Sapindaceae	Shrub
19	*Ehretia pubescens* Benth.	Cordiaceae	Shrub
20	*Euphorbia antiquorum* L.	Euphorbiaceae	Shrub
21	*Euphorbia caducifolia* Haines	Euphorbiaceae	Shrub
22	*Euphorbia ligularia Roxb.*	Euphorbiaceae	Shrub
23	*Euphorbia thymifolia* L.	Euphorbiaceae	Shrub
24	*Ficus hispida* L. f.	Moraceae	Shrub
25	*Flacourtia indica* (Burm. f.) Merr.	Flacourtiaceae	Shrub
26	*Gmelina asiatica* L.	Verbenaceae	Shrub
27	*Grewia villosa* Willd.	Tiliaceae	Shrub
28	*Helicteres isora* L.	Sterculiaceae	Shrub
29	*Ixora arborea Roxb.ex Smith*	Rubiaceae	Shrub
30	*Maba buxifolia* (Rottb.) A. L. Juss.	Ebenaceae	Shrub
31	*Maytenus emarginata* (Willd.) Ding Hou	Celastraceae	Shrub
32	*Mimosa intsia* L.	Mimosaceae	Shrub
33	*Mimosa polyancistra* Benth.	Mimosaceae	Shrub
34	*Murraya koenigii* (L.) Spreng.	Rutaceae	Shrub
35	*Pavetta indica* L.	Rubiaceae	Shrub
36	*Pavetta tomentosa* Roxb.	Rubiaceae	Shrub
37	*Phyllanthus pinnatus* (Wight) Webster	Euphorbiaceae	Shrub
38	*Phyllanthus polyphyllus* Willd.	Euphorbiaceae	Shrub
39	*Phyllanthus reticulatus* Poir.	Euphorbiaceae	Shrub
40	*Premna corymbosa* (Burm. f.) Rottl. & Willd.	Verbenaceae	Shrub
41	*Rhus mysorensis* G. Don.	Anacardiaceae	Shrub
42	*Santalum album* L.	Santalaceae	Shrub
43	*Securinega leucopyrus* (Willd.) Muell. - Arg.	Euphorbiaceae	Shrub
44	*Securinega virosa* (Willd.) Bail.	Euphorbiaceae	Shrub
45	*Streblus asper* Lour.	Moraceae	Shrub
46	*Vitex negundo* L.	Verbenaceae	Shrub
47	*Wendlandia heynei* (Roem. & Schult.)	Rubiaceae	Shrub
48	*Xymenia americana L.*	Opiliaceae	Shrub
49	*Ziziphus mauritiana* Lam.	Rhamnaceae	Shrub

S. No	Name of the species	Family	Habit
1	*Abrus precatorius* L.	Fabaceae	Liana
2	*Acacia caesia* (L.) Willd.	Mimosaceae	Liana
3	*Aganosma cymosa* (Roxb.) G.	Apocynaceae	Liana
4	*Argyreia nervosa* (Burm. f.) Boj. Hort. Maurit.	Convolvulaceae	Liana
5	*Bauhinia vahlii* Wight & Arn. Prodr.	Caesalpiniaceae	Liana
6	*Calycopteris floribunda* Lam.	Combretaceae	Liana
7	*Canavalia virosa* (Roxb.) Wight & Arn.	Fabaceae	Liana
8	*Cansjera rheedii* Gmel.	Opiliaceae	Liana
9	*Capparis rotundifolia*	Capparaceae	Liana
10	*Capparis sepiaria* L.	Capparaceae	Liana
11	*Capparis zeylanica* L.	Capparaceae	Liana
12	*Combretum albidum* G. Don	Combretaceae	Liana
13	*Cosmostigma racemosum* (Roxb.) Wight	Asclepiadaceae	Liana
14	*Decalepis hamiltonii Wight & Arn.*	Asclepiadaceae	Liana
15	*Derris scandens* (Roxb.) Benth.	Fabaceae	Liana
16	*Grewia rhamnifolia* Heyne ex Roth.	Tiliaceae	Liana
17	*Gymnema sylvestre (Retz.) R. Br.*	Asclepiadaceae	Liana
18	*Hiptage benghalensis* (L.) Kurz	Malpighiaceae	Liana
19	*Hugonia mystax* L.	Linaceae	Liana
20	*Ichnocarpus frutescens (L.) R. Br.*	Apocynaceae	Liana
21	*Jasminum angustifolium* Vahl.	Oleaceae	Liana
22	*Jasminum arborescens* Roxb.	Oleaceae	Liana
23	*Jasminum roxburghianum* Wall. ex. C. Bclarke in Hook.	Oleaceae	Liana
24	*Leoseneriella obtusifolia* (Roxb.) A. C.	Hipocrotaceae	Liana
25	*Leptadenia reticulata (Retz.) Wight & Arn.*	Asclepiadaceae	Liana
26	*Maerua oblongifolia* (Forsk.) A. Rich	Capparaceae	Liana
27	*Mucuna pruriens* (L.) DC.	Fabaceae	Liana
28	*Olax scandens* Roxb.	Olacaceae	Liana
29	*Pachygone ovata* (Poir.) Miers exHook. f. & Thoms.	Menispermaceae	Liana
30	*Plecospermum spinosum* Trecul, Ann.	Moraceae	Liana
31	*Pterolobium hexapetalum* (Roth) Sant. & Wagh	Caesalpiniaceae	Liana
32	*Rivea hypocrateriformis* (Desr.) Choisy	Convolvulaceae	Liana
33	*Sarcostemma acidum* (Roxb.) Voight Hort.	Asclepiadaceae	Liana
34	*Secamone emetica* (Retz.) R. Br.	Asclepiadaceae	Liana
35	*Symphorema involucratum Roxb.*	Verbenaceae	Liana
36	*Symphorema polyandrum* Wight Ic.	Verbenaceae	Liana
37	*Ventilago maderaspatana* Gaertner	Rhamnaceae	Liana
38	*Wattakaka volubilis* (L. f.) Stapf.	Asclepiadaceae	Liana
39	*Ziziphus oenoplia* (L.) Mill.	Rhamnaceae	Liana

S. No	Name of the species	Family	Habit
1	*Abutilon crispum* (L.) Medikus	Malvaceae	Herb
2	*Acalypha alnifolia* Klein ex Willd.	Euphorbiaceae	Herb
3	*Acalypha ciliata* Forssk.	Euphorbiaceae	Herb
4	*Acalypha lanceolata* Willd.	Euphorbiaceae	Herb
5	*Achyranthes aspera* L.	Amaranthaceae	Herb
6	*Adenostemma lavenia* (L.) O. Kuntze, Rev.	Asteraceae	Herb
7	*Aerva javanica* (Burm.f.) Juss.	Amaranthaceae	Herb

8	*Aerva lanata* (L.) Juss.	Amaranthaceae	Herb
9	*Alocasia decipiens* Schoot in Bonplandia	Araceae	Herb
10	*Alternanthera paronychioides* St. Hil. Voy. Distr	Amaranthaceae	Herb
11	*Alternanthera sessilis* (L.) R. Br.	Amaranthaceae	Herb
12	*Alysicarpus monilifer* (L.) DC.	Fabaceae	Herb
13	*Ammannia octandra* L. f. Suppl.	Lythraceae	Herb
14	*Amorphophallus sylvaticus* (Roxb) Kunth, Enum.	Araceae	Herb
15	*Andrographis nallamalayana* J. L. Ellis in Bull.	Acanthaceae	Herb
16	*Andrographis paniculata* (Burm. f.) Wall.	Acanthaceae	Herb
17	*Andrographis serpyllifolia* (Rottl. ex Vahl) Wight.	Acanthaceae	Herb
18	*Andropogon pumilus* Roxb.	Poaceae	Herb
19	*Anisochilus carnosus* (L.f.) Wall. ex Benth.	Lamiaceae	Herb
20	*Anisomeles indica* R. Br.	Lamiaceae	Herb
21	*Anisomeles malabarica* (L.) R. Br. ex. Sims.	Lamiaceae	Herb
22	*Apluda mutica* L.	Poaceae	Herb
23	*Aristida hystrix* L. f. Suppl.	Poaceae	Herb
24	*Arundinella nervosa (*Roxb.) Nees ex Hook.	Poaceae	Herb
25	*Barleria acuminata* Nees	Acanthaceae	Herb
26	*Barleria buxifolia* L	Acanthaceae	Herb
27	*Barleria cristata L.*	Acanthaceae	Herb
28	*Barleria cuspidata* Heyne	Acanthaceae	Herb
29	*Barleria longiflora* L. f.	Acanthaceae	Herb
30	*Barleria montana* Neesin	Acanthaceae	Herb
31	*Barleria noctiflora* L. f.	Acanthaceae	Herb
32	*Barleria prionitis* L.	Acanthaceae	Herb
33	*Barleria strigosa* Willd.	Acanthaceae	Herb
34	*Bidens bipinnata* L.	Asteraceae	Herb
35	*Blainvillea acmella* (L.)	Asteraceae	Herb
36	*Blepharis maderaspatensis* (L.) Heyne ex Roth Nov	Acanthaceae	Herb
37	*Blepharis repens* (Vahl) Roth	Acanthaceae	Herb
38	*Boerhavia diffusa* L.	Nyctaginaceae	Herb
39	*Brachystelma annamacharyae* K. Prasad et al.	Asclepiadaceae	Herb
40	*Brachystelma ciliatum* Arekal & T. M. Ramakrishna.	Asclepiadaceae	Herb
41	*Brachystelma seshachalamense* K. Prasad et al.	Asclepiadaceae	Herb
42	*Brachystelma kadappaensis* K. Prasad et al.	Asclepiadaceae	Herb
43	*Brachystelma pullaiahi* Rao et al.	Asclepiadaceae	Herb
44	*Byttneria herbacea* Roxb.	Sterculiaceae	Herb
45	*Cajanus albicans* (Wight & Arn.) Vander. Maesen	Fabaceae	Herb
46	*Canscora deccurrens* Dalz. In Hook. j.	Gentianaceae	Herb
47	*Canscora perfoliata* Lam. Encycl.	Gentianaceae	Herb
48	*Caralluma adscendens* (Roxb.) Haw.	Asclepiadaceae	Herb
49	*Celosia argentea* L. var. *argentea*	Amaranthaceae	Herb
50	*Cenchrus biflorus* Roxb. Fl.	Poaceae	Herb
51	*Ceropegia bulbosa* Roxb. pl. cor.	Asclepiadaceae	Herb
52	*Ceropegia spiralis* Wight.	Asclepiadaceae	Herb
53	*Chlorophytum laxum* R. Br.	Liliaceae	Herb
54	*Chlorophytum malabaricum* Baker in j. Linn.	Liliaceae	Herb
55	*Chlorophytum tuberosum* (Roxb.) Baker.	Liliaceae	Herb
56	*Chrysopogon fulvus* (Spr.) Chiov.	Poaceae	Herb

57	*Chrysopogon hackalii* (Hook. f.) Fischer.	Poaceae	Herb
58	*Cleome aspera* Koen. ex DC.	Cleamaceae	Herb
59	*Cleome viscosa* L.	Cleamaceae	Herb
60	*Commelina benghalensis* L.	Commelinaceae	Herb
61	*Commelina longifolia* Lam.	Commelinaceae	Herb
62	*Corchorus capsularis* L.	Tiliaceae	Herb
63	*Corchorus tridens* L.	Tiliaceae	Herb
64	*Corchorus trilocularis* L.	Tiliaceae	Herb
65	*Crinum defixum* Ker - Gawl	Amarydillaceae	Herb
66	*Crossendra infundibuliformis* (L.) Nees	Acanthaceae	Herb
67	*Crotalaria calycina* Schrank	Fabaceae	Herb
68	*Crotalaria globosa* Wight & Arn.	Fabaceae	Herb
69	*Crotalaria hirsuta* Willd.	Fabaceae	Herb
70	*Crotalaria lunulata* Heyne ex Wight & Arn.	Fabaceae	Herb
71	*Crotalaria medicaginea* Lam.var. medicaginea	Fabaceae	Herb
72	*Crotalaria paniculata* Willd. var. *paniculata*	Fabaceae	Herb
73	*Crotalaria pulchra* Andr.	Fabaceae	Herb
74	*Crotalaria pusilla* Heyne ex Roth.	Fabaceae	Herb
75	*Crotalaria ramosissima* Roxb.	Fabaceae	Herb
76	*Crotalaria retusa* L.	Fabaceae	Herb
77	*Curculigo orchioides* Gaertn. Fruct.	Hypoxidaceae	Herb
78	*Curcuma neilgherensis* Wight, Ic. t.	Zingiberaceae	Herb
79	*Cymbopogon coloratus* (Hook. f.) Stapf	Poaceae	Herb
80	*Cymbopogon martimii* (Roxb.) Watson.	Poaceae	Herb
81	*Cynotis tuberosa* (Roxb.) Schult. & Schult. f. in. L.	Commelinaceae	Herb
82	*Cyperus rotundus* L.	Cyperaceae	Herb
83	*Cyrtococcum trigonum* (Retz.) Camus in Bull.	Poaceae	Herb
84	*Dactyloctenium aegyptium* (L.) P. Beauv.	Poaceae	Herb
85	*Decaschistia cuddapahensis* Paul et Nayar	Malvaceae	Herb
86	*Decaschistia rufa* Craib	Malvaceae	Herb
87	*Desmodium gangeticum* (L.) DC.	Fabaceae	Herb
88	*Desmodium heterocarpan* (L.) DC.	Fabaceae	Herb
89	*Desmodium laxiflorum* DC.	Fabaceae	Herb
90	*Desmodium pulchellum* (L.) Benth.	Fabaceae	Herb
91	*Desmodium triflorum* (L.) D.C.	Fabaceae	Herb
92	*Desmodium velutinum* (Willd.) DC.	Fabaceae	Herb
93	*Dichanthium foveolatum (Del.) Roberty.*	Poaceae	Herb
94	*Dichanthium pseudoiscaemum* (Nees ex Steud.) Jain.	Poaceae	Herb
95	*Dicliptera cuneata* Nees	Acanthaceae	Herb
96	*Digitaria ciliaris* (Retz.) Koel.	Poaceae	Herb
97	*Dipcadi montanum* (Dalzell) Baker.	Liliaceae	Herb
98	*Dipteracanthus patulus* (Jacq.) Nees	Acanthaceae	Herb
99	*Dipteracanthus prostratus* (Poir) Nees	Acanthaceae	Herb
100	*Dyschoriste vagans* (Wight) O. Kuntze	Acanthaceae	Herb
101	*Elytraria acaulis* (L.f.) Lindau	Acanthaceae	Herb
102	*Endostemon viscosus* (Roth) M. Ashby	Lamiaceae	Herb
103	*Enteropogon monostachyos* (Vahl) Schum.ex Engl.	Poaceae	Herb
104	*Eragrostis cilianensis* (All.) Vign.	Poaceae	Herb
105	*Eranthemum capense* L.	Acanthaceae	Herb

106	*Eranthemum purpurascens* Nees	Acanthaceae	Herb
107	*Eriochloa procera* (Retz.) C.E.Hubb.	Poaceae	Herb
108	*Eulophia graminea* Lindl., Gen.	Orchidaceae	Herb
109	*Eulophia ochreata* Lindl.in journ. Linn.	Orchidaceae	Herb
110	*Euphorbia acaulis* Roxb.	Euphorbiaceae	Herb
111	*Euphorbia elegans* Sprengel	Euphorbiaceae	Herb
112	*Euphorbia heyneana* Spreng.	Euphorbiaceae	Herb
113	*Euphorbia hirta* L.	Euphorbiaceae	Herb
114	*Euphorbia indica* Lam.Encycl.	Euphorbiaceae	Herb
115	*Euphorbia liniarifolia var. liniarifolia*	Euphorbiaceae	Herb
116	*Euphorbia liniarifolia var. nallamalayana* Ellis	Euphorbiaceae	Herb
117	*Euphorbia rosea* Retz.Obs.	Euphorbiaceae	Herb
118	*Evolvulus alsinoides* (L.) L.	Convolvulaceae	Herb
119	*Fioria vitifolia* (L.) Mattei	Malvaceae	Herb
120	*Garnotia elata* (Arn.ex Miq.) Jan.	Poaceae	Herb
121	*Geodorum densiflorum* (lam.) Schltr.	Orchidaceae	Herb
122	*Geodorum recurvum* (Roxb.) Alston in H. Trimen, Handb.	Orchidaceae	Herb
123	*Glinus oppositifolius* (L.) A.DC.	Mulluginaceae	Herb
124	*Goniogyna hirta* (Willd.) Ali	Fabaceae	Herb
125	*Grewia hirsuta* Vahl, Symb.	Tiliaceae	Herb
126	*Habenaria panigrahiana* S. Misra.	Orchidaceae	Herb
127	*Habenaria roxburghii* Nicolson in Saldanha & Nicolson.	Orchidaceae	Herb
128	*Hedyotis affinis* Roem. & Schult.	Rubiaceae	Herb
129	*Hedyotis aspera* Heyne ex Roth Nov.	Rubiaceae	Herb
130	*Hedyotis puberula* (G. Don) Arn. & Pugill.	Rubiaceae	Herb
131	*Heliotropium strigosum* Willd.	Boraginaceae	Herb
132	*Hemigraphis hirta* T. And in J. Linn. Soc.	Acanthaceae	Herb
133	*Hemigraphis latebrosa* (Heyne ex Roth) Neesin DC.	Acanthaceae	Herb
134	*Heteropogon contortus* (L.) Beauv. ex Roem. & Schult.	Poaceae	Herb
135	*Hibiscus lobatus* (Murr.) O. Kuntze	Malvaceae	Herb
136	*Hybanthus enneaspermus* (L.) F. V. Muell.	Violaceae	Herb
137	*Hybanthus vatsavayi* C. S Reddy	Violaceae	Herb
138	*Hyptis suaveolens* (L.) Poit.	Lamiaceae	Herb
139	*Indigofera colutea* (Burn.f.) Merr.	Fabaceae	Herb
140	*Indigofera cordifolia* Heyne ex Roth.	Fabaceae	Herb
141	*Indigofera hirsuta* L.	Fabaceae	Herb
142	*Indigofera linifolia* (L. f.) Retz. var. linifolia	Fabaceae	Herb
143	*Indigofera linnaei* Ali	Fabaceae	Herb
144	*Indigofera mysorensis* Rottler ex DC.	Fabaceae	Herb
145	*Indigofera trifoliata* L.	Fabaceae	Herb
146	*Indigofera trita* L. f.	Fabaceae	Herb
147	*Indoneesiella echiodes* (L.) Sreemadh.	Acanthaceae	Herb
148	*Iphiginea indica* (L.) A. Gray ex Kunth, Enum.	Liliaceae	Herb
149	*Ipomoea obscura* (L.) Ker.	Convolvulaceae	Herb
150	*Jatropha heynei* Black. in Bull.	Euphorbiaceae	Herb
151	*Justicia glabra* Koen. ex Roxb.	Acanthaceae	Herb
152	*Justicia glauca* Rottl.	Acanthaceae	Herb
153	*Kalanchoe lanceolaria* (Forsk.) Pers.	Crassularaceae	Herb
154	*Kalanchoe pinnata* (Lam.) Pers.	Crassularaceae	Herb

155	*Legascea molis Cav.*	Asteraceae	Herb
156	*Lepidagathis cristata* Willd.	Acanthaceae	Herb
157	*Lepidagathis hamiltoniana* Wall.	Acanthaceae	Herb
158	*Leucas aspera* (Willd.) Link Enum.	Lamiaceae	Herb
159	*Lindernia anagallis* (Burm. f.) Pennell in j. Arnold.	Scrophulariaceae	Herb
160	*Lindernia ciliata* (Colsm.) Pennell	Scrophulariaceae	Herb
161	*Macroptilium atropurpureum* (DC) Urban.	Fabaceae	Herb
162	*Melanocenchris jacquemontii* Jaub. & Spach.	Poaceae	Herb
163	*Melhania incana* Heyne ex Wight & Arn.	Sterculiaceae	Herb
164	*Mollugo pentaphylla* L.	Mulluginaceae	Herb
165	*Mullugo nudicaulis* Lam. Encycl.	Mulluginaceae	Herb
166	*Ocimum americanum* L.	Lamiaceae	Herb
167	*Orthosiphon rubicudus* (D. Don) Benth.	Lamiaceae	Herb
168	*Panicum notatum* Retz.	Poaceae	Herb
169	*Paspalidium flavidum* (Retz.) Camus	Poaceae	Herb
170	*Pavonia odorata* Willd.	Malvaceae	Herb
171	*Pavonia zeylanica (L.) Cav.*	Malvaceae	Herb
172	*Perotis indica* (L.) O. Kuntze	Poaceae	Herb
173	*Phyllanthus amarus* Schum. & Thonn.	Euphorbiaceae	Herb
174	*Phyllanthus debilis* Klein ex Willd.	Euphorbiaceae	Herb
175	*Phyllanthus maderaspatensis* L.	Euphorbiaceae	Herb
176	*Phyllanthus rotundifolius* Klein ex Willd.	Euphorbiaceae	Herb
177	*Phyllanthus virgatus* Forst. f. Insul.	Euphorbiaceae	Herb
178	*Plectranthus barbatus* Andr.	Lamiaceae	Herb
179	*Plumbago zeylanica* L.	Plumbaginaceae	Herb
180	*Pogostemon myosuroides* (Roth) El Gazzar & L. Watson	Lamiaceae	Herb
181	*Polygala elongata Klein ex Willd.*	Polygalaceae	Herb
182	*Polygala javana* DC.	Polygalaceae	Herb
183	*Portulaca wightiana* Wall. ex Wight & Arn.	Portulaceae	Herb
184	*Pouzolzia auriculata* Wt. t.	Urticaceae	Herb
185	*Pseudarthia viscida* (L.) Wight & Arn.	Fabaceae	Herb
186	*Pulicaria wightiana* (DC.) Clarke	Asteraceae	Herb
187	*Pupalia lappacea* (L.) Juss. var. *lappaceae*	Amaranthaceae	Herb
188	*Rhinacanthus nasutus* (L.) Kurz.	Acanthaceae	Herb
189	*Rhynchosia aurea* (Willd.) DC.	Fabaceae	Herb
190	*Rhynchosia capitata* DC.	Fabaceae	Herb
191	*Rhynchosia suaveolens* (L. F.) DC.	Fabaceae	Herb
192	*Rostellularia crinita* (Nees) Nees	Acanthaceae	Herb
193	*Rostellularia vahlii* (Roth) Nees var. *vahlii*	Acanthaceae	Herb
194	*Rungia repens* (L.) Nees	Acanthaceae	Herb
195	*Sansevieria roxburghiana* Schult. & Schult. f. Syst.	Agavaceae	Herb
196	*Scilla hyacinthina* (Roth) Macbr.	Liliaceae	Herb
197	*Sebastenia chamaelea* (L.) Muell. Arg. in DC.	Euphorbiaceae	Herb
198	*Sehima nervosum* (Rottl.) Stapf.	Poaceae	Herb
199	*Senna absus* L.	Caesalpiniaceae	Herb
200	*Senna auriculata* (L.) Roxb.	Caesalpiniaceae	Herb
201	*Senna kleinii* Wt.& Arn.	Caesalpiniaceae	Herb
202	*Senna occidentalis* (L.) Link	Caesalpiniaceae	Herb
203	*Senna tora* (L.) Roxb.	Caesalpiniaceae	Herb

204	*Sesamum laciniatum* Klein ex Willd.	Pedalaceae	Herb
205	*Sesamum orientale* L.	Pedalaceae	Herb
206	*Setaria pumila* (Poir.) Roem. & Schult.	Poaceae	Herb
207	*Sida acuta* Burm. f.	Malvaceae	Herb
208	*Sida cordata* (Burm. f.) Borssum	Malvaceae	Herb
209	*Sida cordifolia* L.	Malvaceae	Herb
210	*Solanum pubescens* Willd.	Solanaceae	Herb
211	*Sopubia delphinifolia* (L.) G. Don.	Scrophulariaceae	Herb
212	*Spermacoce hispida* L. Sp.	Rubiaceae	Herb
213	*Spermacoce pusilla* Wall. in. Roxb.	Rubiaceae	Herb
214	*Sporobolus wallichii* Munroex.	Poaceae	Herb
215	*Stenosiphonium parviflorum* T. And.	Acanthaceae	Herb
216	*Stenosiphonium russelianum* Nees	Acanthaceae	Herb
217	*Striga asiatica* (L.) O. Kuntze Rev. Gen.	Scrophulariaceae	Herb
218	*Synedrella vialis* (Less.) A. Gary.	Asteraceae	Herb
219	*Tephrosia purpurea* (L.) Pers.	Fabaceae	Herb
220	*Tephrosia strigosa* (Dalz.) Sant. & Mahesh.	Fabaceae	Herb
221	*Tephrosia villosa* (L.) Pers.	Fabaceae	Herb
222	*Thecagonum ovatifolium* (Cav.) Babu in Bull.	Rubiaceae	Herb
223	*Theriophonum minutum* (Willd.) Baill. Hist.	Araceae	Herb
224	*Tragia plukenetii* R. Sm.	Euphorbiaceae	Herb
225	*Tragus roxburghii* Panigr.	Poaceae	Herb
226	*Tribulus terrestris* L.	Zygophyllaceae	Herb
227	*Trichodesma sedgwickianum* S. P Banerjee.	Boraginaceae	Herb
228	*Trichodesma zeylanicum* (Brum. f.) R. Br.	Boraginaceae	Herb
229	*Trichurus monsoniae* (L. f.) C.	Amaranthaceae	Herb
230	*Tridax procumbens* L.	Asteraceae	Herb
231	*Triumfetta rhomboidea* Jacq. Enum.	Tiliaceae	Herb
232	*Uraria rufescens* (DC.) Schind.	Fabaceae	Herb
233	*Urena lobata* L.	Malvaceae	Herb
234	*Urgenia coromandeliana* (Roxb.)Hook. f.	Liliaceae	Herb
235	*Urgenia indica* (Roxb.) Kunth.	Liliaceae	Herb
236	*Urgenia nagarjunae* (Hemadri & Swahari)	Liliaceae	Herb
237	*Vernonia albicans* DC.	Asteraceae	Herb
238	*Vernonia cinerea* (L.) Less.	Asteraceae	Herb
239	*Vetiveria lawsonii* (Hook. f.) Blatt.	Poaceae	Herb
240	*Vicoa indica* (L.) DC.	Asteraceae	Herb
241	*Vigna mungo* (L.) Happer	Fabaceae	Herb
242	*Waltheria indica* L.	Sterculiaceae	Herb
243	*Zornia gibbosa* Span. In Linnaea	Fabaceae	Herb

S. No	Name of the species	Family	Habit
1	*Ampelocissus tomentosa (Heyne ex Roth) Planch.*	Vitaceae	Vine
2	*Aristolochia indica L.*	Aristolochiaceae	Vine
3	*Asparagus racemosus* Willd.	Liliaceae	Vine
4	*Canavalia gladiata* (Jacq.) DC.	Fabaceae	Vine
5	*Cardiospermum canescens* Wall.	Sapindaceae	Vine
6	*Cardiospermum halicacabum* L.	Sapindaceae	Vine

7	*Cayratia pedata* (Lam.) Juss.	Vitaceae	Vine
8	*Cayratia trifolia* L.	Vitaceae	Vine
9	*Cissampelos pareira L. var. hirsuta (Buch.- Ham. ex DC.)*	Menispermaceae	Vine
10	*Cissus quadrangularis L.*	Vitaceae	Vine
11	*Cissus repanda Vahl.*	Vitaceae	Vine
12	*Cissus vitiginea L.*	Vitaceae	Vine
13	*Clitoria ternatea* L.	Fabaceae	Vine
14	*Cocculus hirsutus (L.) Diels in Engl.*	Menispermaceae	Vine
15	*Corallocarpus epigaeus* (Rottl. & Willd.) C. B. Clarke	Cucurbitaceae	Vine
16	*Cryptostegia grandiflora R. Br.*	Asclepiadaceae	Vine
17	*Dioscorea bulbifera* var. *bulbifera*	Dioscoraceae	Vine
18	*Dioscorea hispida* Dennst. Sehluess.	Dioscoraceae	Vine
19	*Dioscorea oppositifolia* L. var. *oppositifolia*	Dioscoraceae	Vine
20	*Dioscorea pentaphylla* L. ver. *pentaphylla*	Dioscoraceae	Vine
21	*Dolichos trilobus* L.	Fabaceae	Vine
22	*Galactia longiflora* Benth.	Fabaceae	Vine
23	*Galactia tenuiflora* (Klein ex Willd.) Wight & Arn.	Fabaceae	Vine
24	*Gloriosa superba* L.	Liliaceae	Vine
25	*Gymnopetalum cochinchinense* (Lour.) Kurz.	Cucurbitaceae	Vine
26	*Hemidesmus indicus (L.) R. Br. var. indicus*	Asclepiadaceae	Vine
27	*Hemidesmus indicus (L.) R. Br. var. pubescens*	Asclepiadaceae	Vine
28	*Holostemma ada-kodien* Schult.	Asclepiadaceae	Vine
29	*Ipomoea barlerioides* (Choisy) Benth.	Convolvulaceae	Vine
30	*Ipomoea eriocarpa* R. Br.	Convolvulaceae	Vine
31	*Ipomoea pes-tigridis* L.	Convolvulaceae	Vine
32	*Ipomoea sepiaria* Kooen. ex Roxb.	Convolvulaceae	Vine
33	*Jacquenmontia paniculata* (Burm. f.) Hallier f.	Convolvulaceae	Vine
34	*Marsdenia tenacissima* (Roxb.) Moon.	Asclepiadaceae	Vine
35	*Merremia gangetica* (L.) Cuf.	Convolvulaceae	Vine
36	*Merremia tridentata* (L.) Hallier f.	Convolvulaceae	Vine
37	*Meyenia hawtayneana* (Wall.) Nees in Wall.	Acanthaceae	Vine
38	*Naravelia zeylanica (L.) DC.*	Ranunculaceae	Vine
39	*Paracalyx scariosus* (Roxb.)	Fabaceae	Vine
40	*Pergularia daemia* (Forsskal) Chiov.	Asclepiadaceae	Vine
41	*Pueraria tuberosa* DC.	Fabaceae	Vine
42	*Rhynchosia cana* DC.	Fabaceae	Vine
43	*Rhynchosia densiflora* (Roth) DC.	Fabaceae	Vine
44	*Rhynchosia minima* (L.) DC.	Fabaceae	Vine
45	*Rhynchosia rothii* Benth. ex Aitch.	Fabaceae	Vine
46	*Solena amplexicaulis* (Lam.) Gandhi in Saldanha & Nicholson	Cucurbitaceae	Vine
47	*Teramnus labialis* (L. f.) Spreng.	Fabaceae	Vine
48	*Tinospora cordifolia* (Willd.) Miers ex Hook. f. & Thoms.	Menispermaceae	Vine
49	*Tragia involucrata* L. var. angustifolia	Euphorbiaceae	Vine
50	*Tragia involucrata* L. varinvolucrata	Euphorbiaceae	Vine
51	*Trichosanthes cucumerina* L.	Cucurbitaceae	Vine
52	*Trichosanthes tricuspidata* Lour.	Cucurbitaceae	Vine
53	*Tylophora fasciculata* Ham.	Asclepiadaceae	Vine
54	*Tylophora indica* (Burm. f.) Merr.	Asclepiadaceae	Vine
55	*Vigna pilosa* Baker ex K. Heyne	Fabaceae	Vine

56	*Vigna trilobata* (L.) Verdc.	Fabaceae	Vine

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