

GOVT.DEGREE COLLEGE
BHADRACHALAM
DEPARTMENT OF BOTANY

Register Name

STUDENT PROJECT REGISTER



**GOVERNMENT DEGREE COLLEGE
BHADRACHALAM**



DEPARTMENT OF BOTANY

STUDENT STUDY PROJECT

TITLE

**A STUDY ON PLANT DIVERSITY OF GOVERNMENT
DEGREE COLLEGE BHADRACHALAM AND ITS
SURROUNDINGS.**

Supervisor

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GDC, BHADRACHALAM

CERTIFICATE

Certified that this study is a bonafide Student Study Project done by the following B.Sc.
(BZC & SBZ) students of Government Degree College, Bhadrachalam under the supervision of S.
SYAM PRASAD, Asst. Professor of Botany.

S.No	Name of the student	Hall ticket Number
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S. SYAM PRASAD

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INTRODUCTION

Nature has everything for everyone's needs but has nothing for anyone's greed. Nature has created a great variety of life on earth to provide for man's needs over thousands of years. We must keep biodiversity, so in the future, we don't weep. Here, the most prominent features of the earth are the subsistence of life and that of life's diversity (Tilman, 2000).

The plant life that is concerned with microhabitats and supports distinct plant assemblages reflects the diversity of the ecosystem, habitats, and prevailing environmental circumstances. Variation in the formation of varieties is not only spatial, but also temporal (Batanouny, 2001).

A Green Campus is a place on campus where environmentally friendly practices and education aim to encourage sustainable and eco-friendly practices. The green campus feature enables an institution to take the lead in creating its environmental culture and new paradigms by creating sustainable solutions to mankind's environmental, social, and economic needs (Sen & Keshari, 2019).

Plants that grew around them are used by different different cultures around the world. Plant diversity is influenced by species distribution and abundance patterns at any place (Reddy et al., 2014).

The richness of flowering plants makes India one of the mega diversity countries in the world, with four biodiversity hotspots and three mega centers of endemism. India was ranked seventh in the world among 17 mega-diversity countries, with over 17,000 species of higher plants reported (Anonymous 1993, Shiva 1996).

Biodiversity keeps the ecological processes in a balanced state, which is necessary for human survival (Kaur & Sharma 2014).

Bhadrachalam is located in the semi-arid region of Telangana and has a predominantly hot and dry climate. Summer starts in March and peaks in May, with average high temperatures in the 42°C range. The monsoon arrives in June and lasts until September, with about 550 mm of precipitation. A dry, mild winter starts in October and lasts until early February, when there is little humidity and average temperatures in the 22–23 °C range.

REVIEW OF LITERATURE

Warner (1982) predicted that 80% of the geographical areas of India were under forest cover in 3000 BC, which is now left with 19.1% of the total land area. Among the 34 biodiversity hotspots (Myers et al., 2000; CIF, 2004) recognized, two are in India.

The most imperative topographic attribute of Peninsular India is the 1400 km long Western Ghats along its western margin, traversing the states of Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra, and Gujarat.

The Western Ghats are the second largest endemic centre in India, with 1550 endemics out of an estimated 4250 species of vascular plants (Nayar, 1997). Recent studies (Sasidharan, 2007) showed that more than 5000 species of vascular plants with 1700 endemics were reported from Kerala, part of the Western Ghats itself.

Since many hills in Peninsular India were formed during the Archaean and Precambrian periods, the Western Ghats are more senile than the Himalayas (Mani, 1974), and hence the genetic stock of the biodiversity of the Western Ghats is the most attractive for both evolutionists and ecologists.

Bradley (1849) and Walker (1849) were probably the first to publish accounts of agricultural, medicinal and other economically important species of Daulatabad and Warangal

districts in Nizam's dominions. Patridge (1911) published a consolidated list of 450 species of arborescent forest elements in a book entitled, "Forest Flora of Hyderabad". Sayeeduddin (1935, 1936, 1941) recorded 370 vascular plant species from Hyderabad and Mulugu forests of Warangal.

P.S. Reddy (1985) investigated the flora of Warangal city and surroundings, and recorded 715 plant species.

Ragan & Raju (1990) discovered *Eleocharis setifolia* and *Scleria multilacunosa* from Pakhal as new to peninsular India.

Reddy & Raju (1999) reported *Gnaphalium coarctatum* as a new record for southern India.

Reddy et al. (1999b) found *Youngia japonica* as a new record from Warangal district for the Flora of Andhra Pradesh.

Reddy et al. (1999b) published a paper on angiosperms flora and biological spectrum of Jakaram Reserve Forest.

Reddy & Raju (2001) described a new taxon, *Cleome chelidonii* var. *pallai* from Pakhal.

Reddy (2001) described a new species, *Hybanthus vatsvayae*, from Telangana region. Reddy (2002) recorded 1223 species of Magnoliophyta and Pteridophyta in his Ph.D. thesis on "Floristic Studies in Warangal District, Andhra Pradesh". Since then, Ragan et al. (2005) reported *Flemingia involucrata* (Fabaceae) as new record for the State from Warangal district.

Raju et al. (2005) collected *Cucurma inodora*, an endemic species to Deccan extending its distribution to Tadvai and Pasra Reserve forests of Warangal district in Andhra Pradesh. While working on the biodiversity characterization study of Warangal district (2004-05).

OBJECTIVES

To evaluate the diversity of plant species in Government Degree College Bhadrachalam and its surroundings.

MATERIAL AND METHODS

Field Study

The Flora is prepared based on repeated seasonal collections of plant specimens from the campus, either in the flowering or fruiting stage. Regular field visits were made during the year 2021 in different seasons to explore the various plant species.

Documentation

Documentation of information during and after field work was carried out on scientific lines. Data was noted in specially designed field-diaries covering floristic entries. Voucher plant specimens tagged with field-numbers along with products or produce were invariably collected. Photographs were taken and presented in this report along with scientific names.

Laboratory Work

Laboratory work mainly consisted of processing, study of morphology, identification, matching, mounting, labeling and preservation of the Specimens. At the conclusion of each field trip, the collection was brought to Department of Botany, Government Degree College, Bhadrachalam and all the above processes were completed in the laboratory. Herbarium of all the plants were Prepared as per standard practices (Jain and Rao, 1977), identified with the help of Gamble flora and preserved in the Department of Botany, Government Degree College, Bhadrachalam.

Processing

The plant specimens were collected either in flower or fruit, preferable both. Herbaceous plants were collected entirely. Of woody plants, twigs of about 25 cm length were collected. At least three specimens of each plant were collected. The detail notes related to it were entered in the field note book. The plant specimens were placed on the blotters or newsprint, avoiding folding or hiding of the parts. The extra leaves/branches, etc. were removed, if necessary. The pressing sheets with specimens were placed one over the other and were then tightly bound in a plant press applying uniform pressure. The pressing sheets were changed every day till they are perfect dried. The plant specimens were then transferred to newspaper folds for drying and later mounted.

Mounting

Before mounting, the specimens were poisoned by dipping them in ethyl alcohol saturated with mercuric chloride. Herbarium sheets are used for mounting. Animal glue or plaster was used for sticking the specimens to the sheets. To hold the specimen better, they were stitched from the back at points. Dissected parts and spare organs such as fruits and seeds were placed in plastic packets pasted to the mounting sheets.

Labelling

A label of 6.5×10.5 cm dimension is pasted on the lower right corner of the herbarium sheet. It contains general information about the specimen on the herbarium sheets. It carries the information on the locality of collection, name of the collector, family name, scientific name, habit, habitat, data collection, vernacular name, etc.

Identification

Identification of the specimens was done with the help of standard floras (Gamble 1915- 1935) and monographic studies of the taxa concerned. All the studied plant species have been arranged alphabetically, along with their scientific name, family, vernacular names Habit. The families are arranged according to Bentham and Hooker"s system of classification.

DATA ANALYSIS

The collected plant data were entered into Excel spreadsheet 2007 and Summarized.

Descriptive statistics

Descriptive statistical methods such as number, percentage were employed and graphs and tables showing the results generated.

RESULTS AND DISCUSSIONS

In the present investigation, a total of 97 species representing 87 genera belonging to 46 families have been recorded (Table-3). Of the 46 families, the most dominant is Fabaceae-Caesalpinioideae with 08 species (8.24%), followed by Fabaceae-Faboideae with 07 species (7.21%), Euphorbiaceae with 6 species (6.18%), and the families Amaranthaceae, Apocynaceae, Arecaceae, Malvaceae, Myrtaceae, Solanaceae, Verbanaceae by each of 03 species (3.09%), Asclepiadaceae, Commelinaceae, Fabaceae, Liliaceae, Nyctaginaceae, and Tiliaceae by each of 2 species (2.06%), and the other 26 consisting of 1 species. (Table.2).

Herbs constitute the highest species representative by 43 species (44.32%), trees 34 species (35.05%), shrubs 14 species (14.43%), climbers 4 species (4.12%), Creepers 02 species (2.06%). (Table:1)

Table-1: Habit of collecting plants from the study area.

Habit	Number of Species	Percentage of Species
Climber	4	4.12%
Herbs	43	44.32%
Trees	34	35.05%
Shrubs	14	14.43%
Creepers	2	2.06%

Table: 2. The number of species represented by each family and the percentage of species represented by each family

Families	Number of Species	Percentage
Acanthaceae	3	3.09%
Agavaceae	1	1.03%
Alangiaceae	1	1.03%
Amaranthaceae	5	5.15%
Anacardiaceae	1	1.03%
Annonaceae	1	1.03%
Apocynaceae	3	3.09%
Araucariaceae	1	1.03%
Arecaceae	3	3.09%
Asclepiadaceae	2	2.06%
Asteraceae	5	5.15%
Bignoniaceae	1	1.03%
Cannaceae	1	1.03%
Cleomaceae	1	1.03%
Combretaceae	1	1.03%
Commelinaceae	2	2.06%
Convolvulaceae	1	1.03%
Crassulaceae	1	1.03%
Cucurbiaceae	1	1.03%
Cupressaceae	1	1.03%
Cycadaceae	1	1.03%
Euphorbiaceae	6	6.18%
Fabaceae- Caesalpinioideae	8	8.24%

Fabaceae-Faboideae	7	7.21%
Fabaceae-Mimosoideae	2	2.06%
Lamiaceae	2	2.06%
Liliaceae	2	2.06%
Malvaceae	3	3.09%
Menisoermaceae	1	1.03%
Moraceae	5	5.15%
Moringaceae	1	1.03%
Myrtaceae	3	3.09%
Nyctaginaceae	2	2.06%
Oleaceae	1	1.03%
Onagrace	1	1.03%
Passifloraceae	1	1.03%
Phyllanthaceae	1	1.03%
Plantaginaceae	1	1.03%
Plumbaginaceae	1	1.03%
Portulacaceae	1	1.03%
Rhamnaceae	1	1.03%
Salvadoraceae	1	1.03%
Solanaceae	3	3.09%
Tiliaceae	2	2.06%
Ulmaceae	1	1.03%
Verbanaceae	3	3.09%

Table.-3. List of plants collected from the Government Degree College Bhadrachalam and its surroundings.

Sl.No	Scientific Name	Family	Common Name	Habit
1	<i>Acalypha indica</i>	Euphorbiaceae	Muripinda	Herb
2	<i>Acalypha wilkesiana</i>	Euphorbiaceae	Acalypha	Herb
3	<i>Achyranthes aspera</i>	Amarantheceae	Uttareni	Herb
4	<i>Acmella paniculata</i>	Asteraceae	0	Herb
5	<i>Aerva lanata</i>	Amarantheceae	Pindi kura	Shurb
6	<i>Agave attenuate</i>	Agavaceae	Kitti nara	Herb
7	<i>Alangium salviifolium</i>	Alangiaceae	Oodugu chettu	Tree
8	<i>Albizia lebbeck</i>	Fabaceae- Mimosoideae	Dirisena	Tree
9	<i>Alstonia scholaris</i>	Apocynaceae	Edakula ponna	Tree
10	<i>Alternanthera ficoidea</i>	Amarantheceae	Adavi ponnaganti	Herb
11	<i>Annona squamosa</i>	Annonaceae	Seethapalum	Tree
12	<i>Araucaria araucana</i>	Araucariaceae	Araucaria	Tree
13	<i>Azadiracta indica</i>	Meliaceae	Vepa	Tree
14	<i>Azima tetracantha</i>	Salvadoraceae	Tellauppi	Shurb
15	<i>Bauhinia racemosa</i>	Fabaceae- Caesalpinioideae	Aare	Tree
16	<i>Blumea mollis</i>	Asteraceae	Kukka pogaku	Herb
17	<i>Boerhavia diffusa</i>	Nyctanginaceae	Atikamamidi	Herb
18	<i>Borassus flabellifer</i>	Arecaceae	Taati	Tree
19	<i>Bougainvillea glabra</i>	Nyctanginaceae	kagithpu pulu	Climber
20	<i>Breynia disticha</i>	Phyllanthaceae	Snow bush	Herb
21	<i>Bryophyllum pinnatum</i>	Crassulaceae	Ranapala	Herb
22	<i>Butea monosperma</i>	Fabaceae-Faboideae	Mooduga	Tree
23	<i>Calotropis gigantea</i>	Asclepiadaceae	Tella jilledu	Shurb

24	<i>Canna indica</i>	Cannaceae	Satyanarayan pulu	Shurb
25	<i>Celosia argentea</i>	Amarantheceae	Gunugu	Herb
26	<i>Cleome viscosa</i>	Cleomaceae	Kukka vaminta	Herb
27	<i>Cocculus hirsutus</i>	Menisoermaceae	Dusseru theega	Creeper
28	<i>Codium variegatum</i>	Euphorbiaceae	Croton	Herb
29	<i>Commelina benghalensis</i>	Commelinaceae	Neeru kasulu	Herb
30	<i>Corchorus aestuans</i>	Tiliaceae	Nela beera	Herb
31	<i>Cordyline fruticosa</i>	Liliaceae	Blood red leaves	Herb
32	<i>Crotan bonplandianum</i>	Euphorbiaceae	Galivana Mokka	Herb
33	<i>Cycas revolute</i>	Cycadaceae	Cycas	Tree
34	<i>Dalbergia sisso</i>	Fabaceae-Faboideae	sisoo	Tree
35	<i>Delonix regia</i>	Fabaceae- Caesalpiinoideae	Gulmohar	Tree
36	<i>Dracaena reflexa</i>	Lilliacae	0	Herb
37	<i>Dypsis lutescens</i>	Arecaceae	Butterfly palm	Shurb
38	<i>Eclipta prostrata</i>	Asteraceae	Guntagalgaraku	Herb
39	<i>Eucalyptus obliqua</i>	Myrtaceae	Jaamaayal	Tree
40	<i>Euphorbia indica</i>	Euphorbiaceae	0	Herb
41	<i>Ficus benghalensis</i>	Moraceae	Marri	Tree
42	<i>Ficus benamina</i>	Moraceae	Weeping fig	Tree
43	<i>Ficus hispida</i>	Moraceae	Bommedi	Tree
44	<i>Ficus racemosa</i>	Moraceae	Medi	Tree
45	<i>Hemidesmus indicus</i>	Asclepiadaceae	Sugandapala	Creeper
46	<i>Holoptelea integrifolia</i>	Ulmaceae	Nemalinara	Tree
47	<i>Hygrophila auriculata</i>	Acanthaceae	Nerugobbi	Herb
48	<i>Indigofera limmaei</i>	Fabaceae-Faboideae	Erra palleru	Herb
49	<i>Ipomoea carnea</i>	Convolvulaceae	Rubbaru chettu	Shurb
50	<i>Iresine herbstii</i>	Amaranthaceae	Iresine	Herb

51	<i>Lantana camara</i>	Verbanaceae	Akshinthalapulu	Shurb
52	<i>Leucaena leucocephala</i>	Fabaceae-Faboideae	Subabul	Tree
53	<i>Ludwingia decurrens</i>	Onagraceae	0	Herb
54	<i>Mangifera indica</i>	Anacardiaceae	Mamidi	Tree
55	<i>Momordica charantia</i>	Cucurbiaceae	Kakara	Climber
56	<i>Moringa oleifera</i>	Moringaceae	Munaga	Tree
57	<i>Nerium odorum</i>	Apocynaceae	Ganneru	Shurb
58	<i>Nyctanthes arbor-tristis</i>	Oleaceae	Parijatham	Tree
59	<i>Ocimum basilicum</i>	Lamiaceae	Bhuthulasi	Herb
60	<i>Parthenium hysterophorus</i>	Asteraceae	Carrot grass	Herb
61	<i>Passiflora foetida</i>	Passifloraceae	Jookamalle	Climber
62	<i>Peltophorum pterocarpum</i>	Fabaceae- Caesalpinioideae	Paccha sunkesula	Tree
63	<i>Phoenix sylvestris</i>	Arecaceae	Eetha	Tree
64	<i>Phyllanthus reticulatus</i>	Euphorbiaceae	Pulseru	Shurb
65	<i>Plectranthus scutellarioides</i>	Lamiaceae	0	Herb
66	<i>Plumbago zylanica</i>	Plumbaginaceae	Chitramulam	Shurb
67	<i>Pongamia pinnata</i>	Fabaceae-Faboideae	kanuga	Tree
68	<i>Portulaca grandiflora</i>	Portulacaceae	Gaddi pulu	Herb
69	<i>Prosopis juliflora</i>	Fabaceae- Mimosoideae	Sarkari thumma	Tree
70	<i>Pseuderanthemum carruthersii</i>	Acanthaceae	Eranthemum	Herb
71	<i>Psidium guajava</i>	Myrtaceae	Jaamaayal	Tree
72	<i>Rungia repens</i>	Acanthaceae	0	Herb
73	<i>Scoparia dulcis</i>	Plantaginaceae	0	Herb
74	<i>Senna auriculata</i>	Fabaceae- Caesalpinioideae	Tangedu	Shurb
75	<i>Senna occidentalis</i>	Fabaceae- Caesalpinioideae	Kassida	Herb

76	<i>Senna siamea</i>	Fabaceae- Caesalpinioideae	Adavi thangedu	Tree
77	<i>Senna tora</i>	Fabaceae- Caesalpinioideae	Tarigisa	Herb
78	<i>Sida acuta</i>	Malvaceae	Polikatta	Herb
79	<i>Sida cordata</i>	Malvaceae	Thirunal Benda	Herb
80	<i>Solanum nodiflorum</i>	Solanaceae	0	Herb
81	<i>Solanum surattense</i>	Solanaceae	Nela mulaga	Herb
82	<i>Solanum trilobatum</i>	Solanaceae	0	Climber
83	<i>Spathodea campanulata</i>	Bignoniaceae	African tulip	Tree
84	<i>Streblus asper</i>	Moraceae	Barrenka	Shurb
85	<i>Syzygium cumini</i>	Myrtaceae	Neredu	Tree
86	<i>Tabernaemontana divaricatum</i>	Apocynaceae	Nadivardanam	Shurb
87	<i>Tamarindus indica</i>	Fabaceae- Caesalpinioideae	Chinta	Tree
88	<i>Tecoma trans</i>	Verbanaceae	paccha pulachettu	Tree
89	<i>Tectona gandriss</i>	Verbanaceae	Teak	Tree
90	<i>Tephrosia purpuria</i>	Fabaceae-Faboideae	Vempalli	Herb
91	<i>Terminalia catappa</i>	Combretaceae	Baadam	Tree
92	<i>Thuja occidentalis</i>	Cupressaceae	Thuja	Herb
93	<i>Tradescantia spathacea</i>	Commelinaceae		Herb
94	<i>Tridax procumbence</i>	Asteraceae	Gaddi chamanthi	Herb
95	<i>Triumfetta rhomboidea</i>	Tiliaceae	0	Herb
96	<i>Vigna stipulacea</i>	Fabaceae-Faboideae	0	Herb
97	<i>Ziziphus nummularia</i>	Rhamnaceae	Nela regu	Shurb

Plate-1: Photos of some selected plants from the study area.



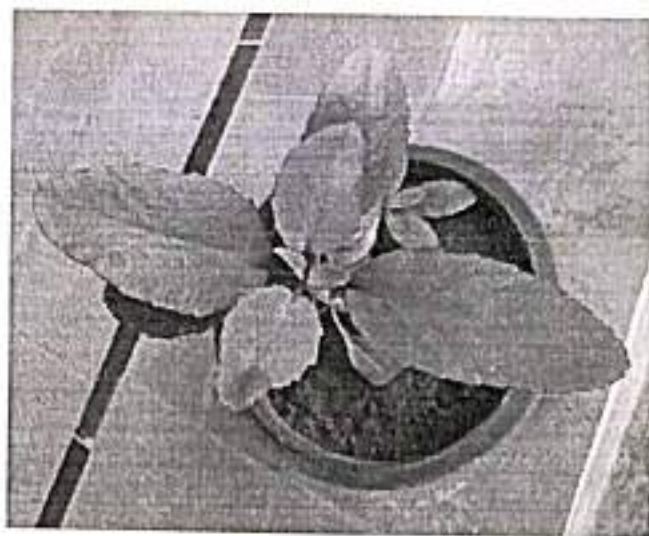
Epipremnum aureum



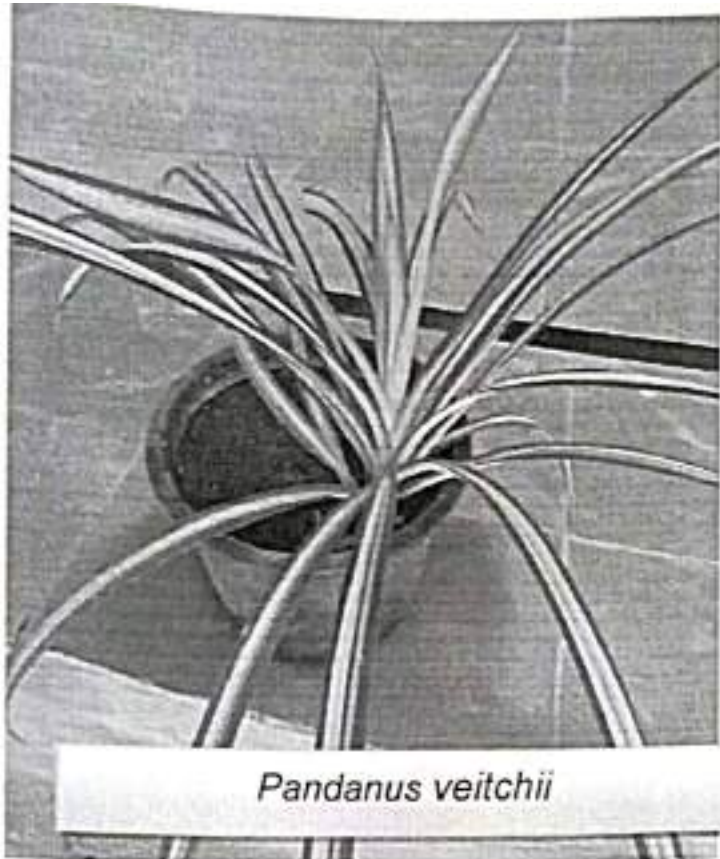
Dracaena marginata



Syngonium podophyllum



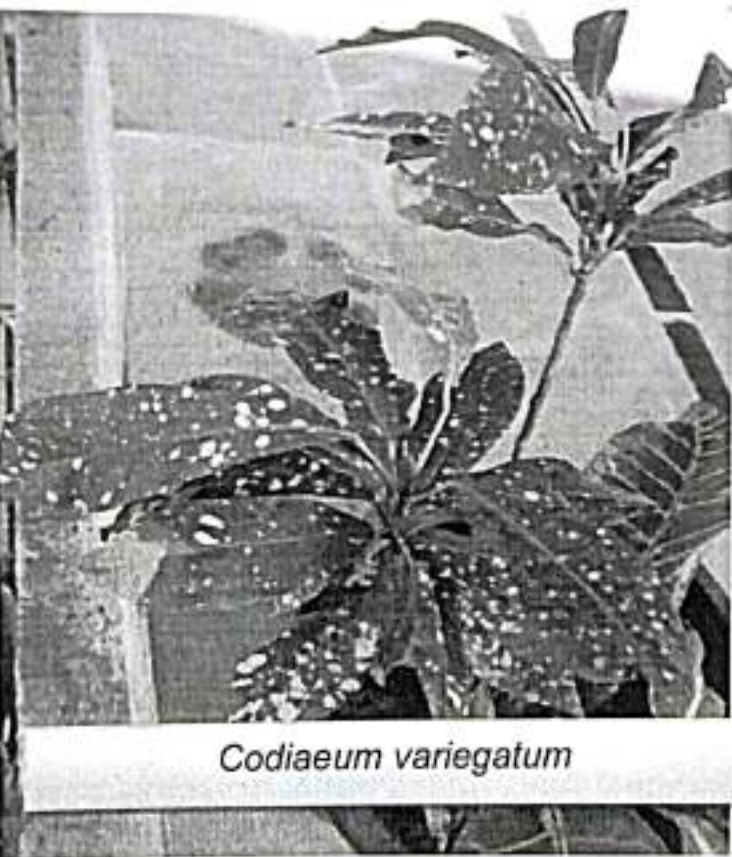
Bryophyllum pinnatum



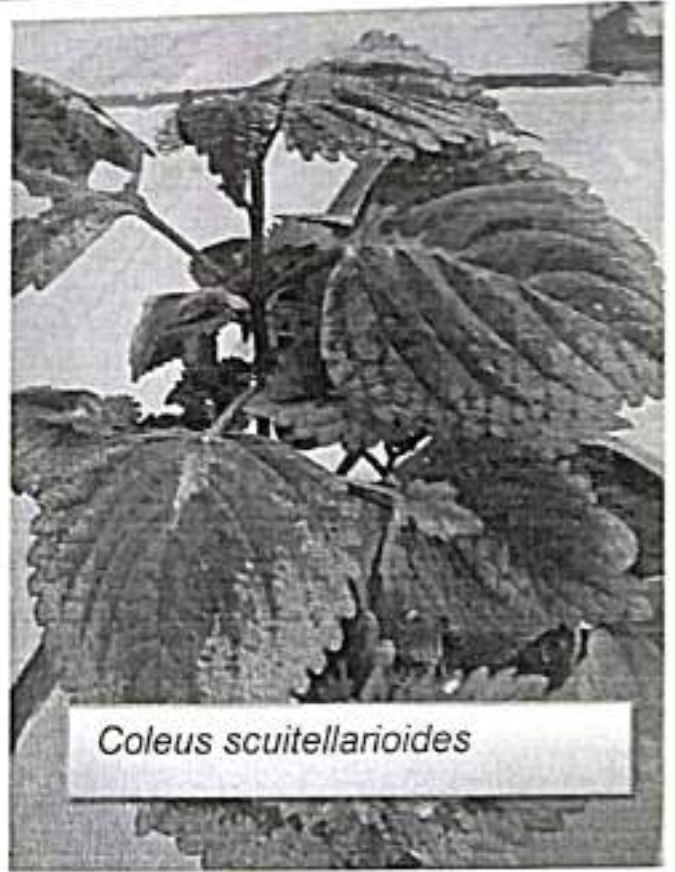
Pandanus veitchii



Tradescantia spathacea



Codiaeum variegatum



Coleus scutellarioides





Dalbergia sissoo



Alstonia scholaris



Euphorbia indica



Celosia argentea



Nerium odorum



Hemidesmus indicus



Phyllanthus reticulatus



Thuja occidentalis



Acalypha wilkesiana



Cycas revoluta



Agave attenuate



Ficus benjamina



Acalypha wilkesiana



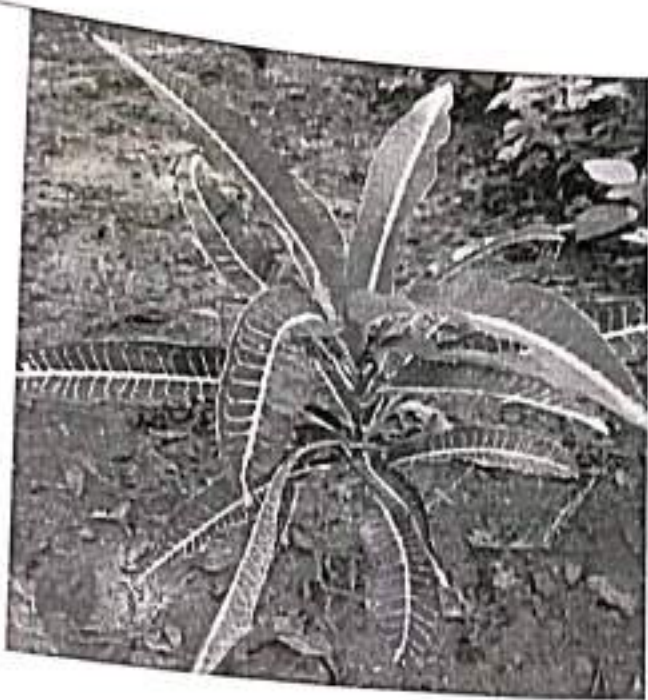
Cycas revoluta



Agave attenuate



Ficus benjamina



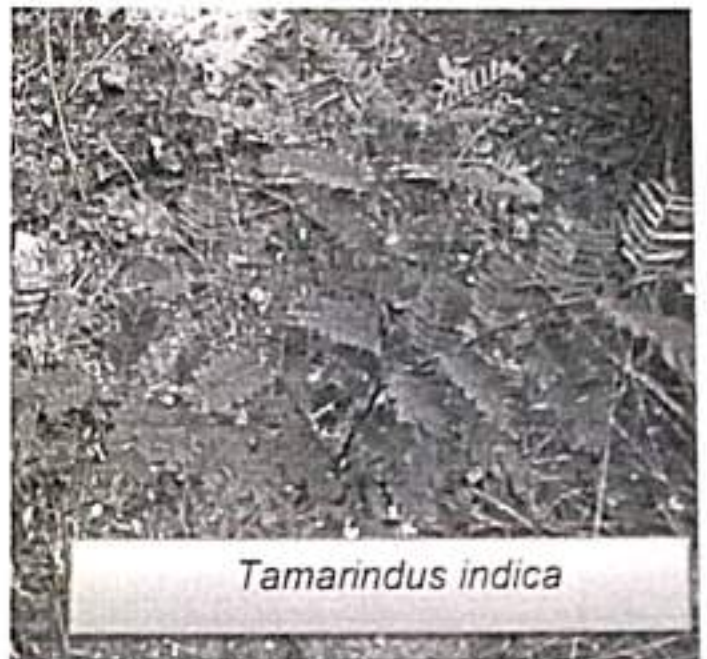
Codium variegatum



Blumea mollis



Boerhavia diffusa



Tamarindus indica



Canna indica



Nyctanthes arbor-tristis



Syzygium cumini



Leucaena leucocephala



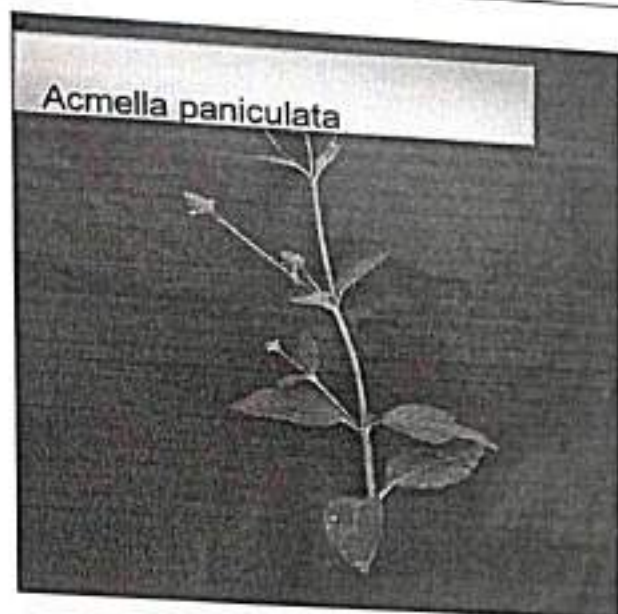
Butea monosperma



Vigna stipulacea



Azadiracta indica



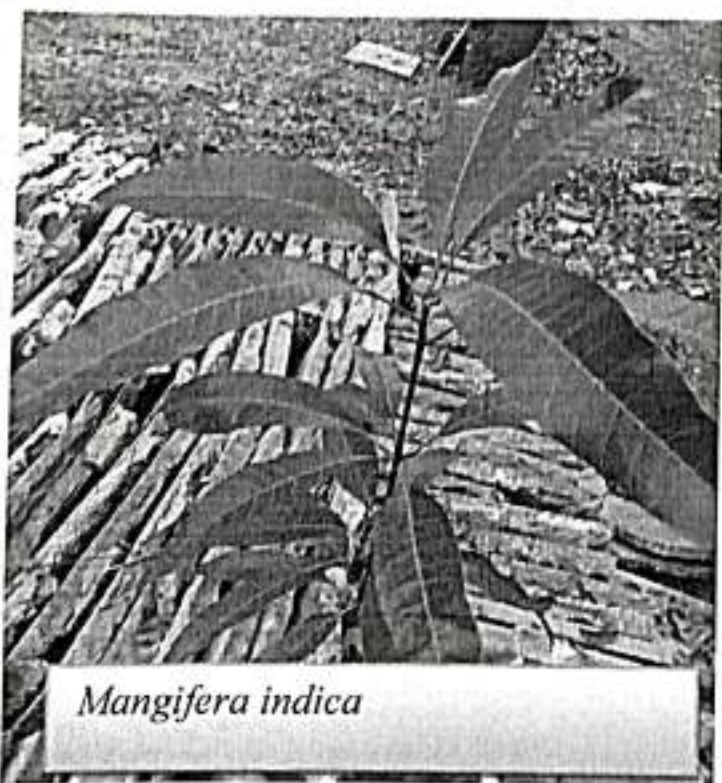
Acnella paniculata



Acalypha indica



Cordyline fruticosa



Mangifera indica



Ludwingia decurrens



Achyranthes aspera



Aerva lanata



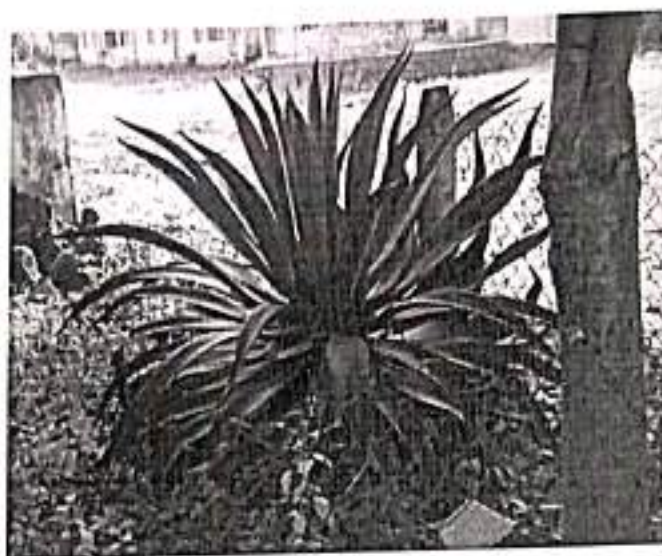
Parthenium hysterophorus



Ziziphus nummularia



Sida acuta



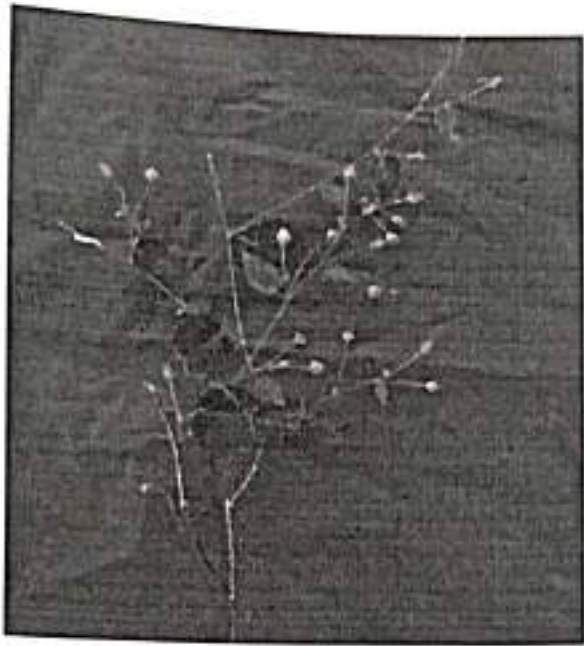
Agave attenuata



Tabernaemontana divaricatum



Croton bonplandianum



Sida cordata



Senna siamea



Senna auriculata



Tephrosia purpuria



Prosopis juliflora



Psidium guajava



Momordica charantia



Borassus flabellif



Senna occidentalis



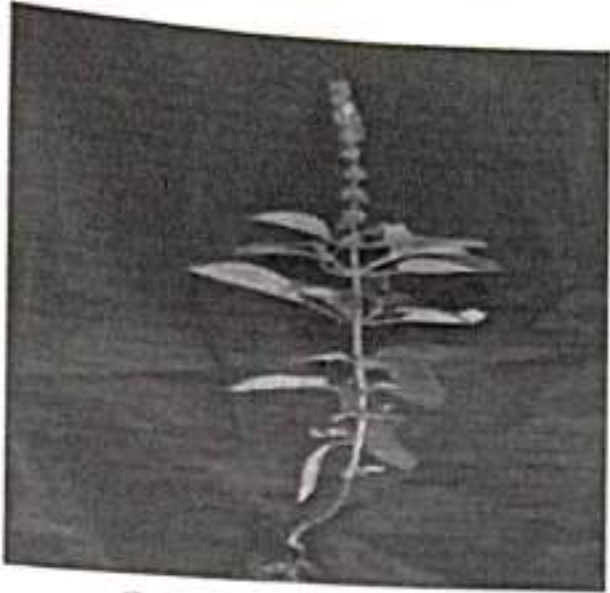
Ipomoea carnea



Cleome viscosa



Azima tetracantha

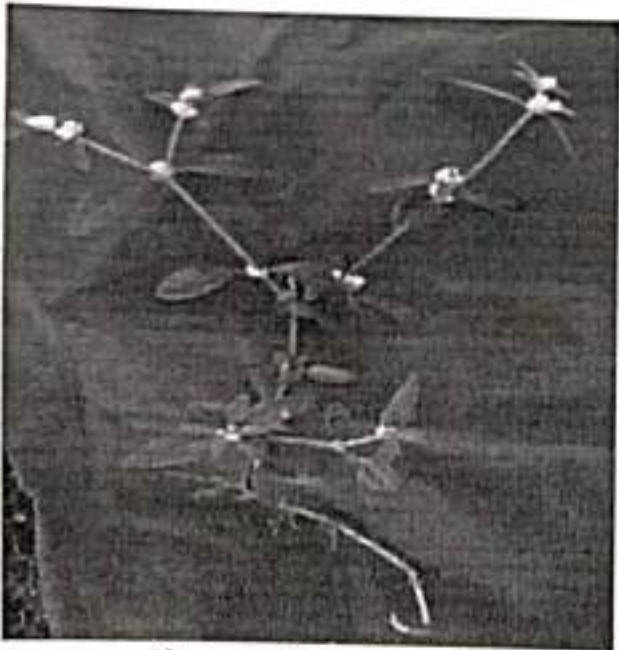


Ocimum basilicum

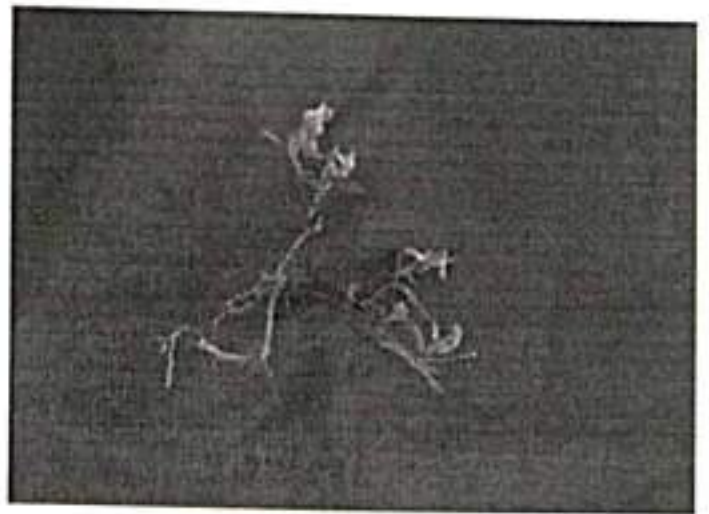


Eclipta prostrata

Rungia repens

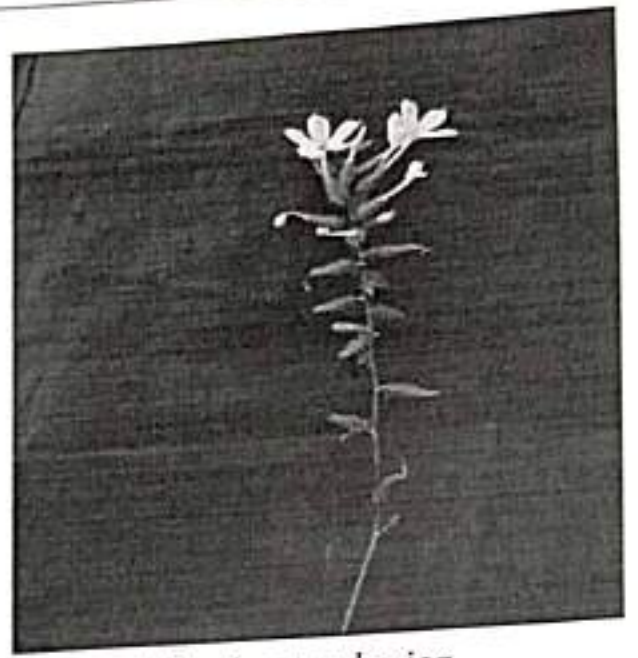


Alternanthera ficoidea





Triumfetta rhomboidea



Plumbago zeylanica

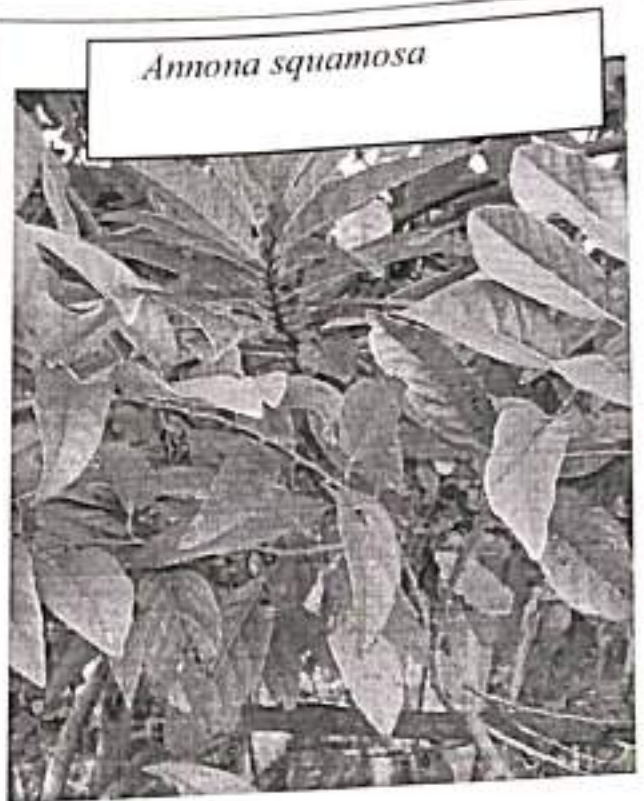


Ficus hispida





Lantana camara



Ammonia squamosa



Solanum surattense



Phyllanthus reticulatus



Streblus asper



Alangium salviifolium



Hygrophila auriculata



Ficus benghalensis



Solanum trilobatum



Senna tora



Pongamia pinnata



Calotropis gigantea

CONCLUSION

In terms of preserving the floral biodiversity, it is very important to set up a botanical garden in the confines of the campus, cultivate these plants, and protect the ones that grow naturally on the grounds.

The study found that the plants recorded from the campus area are economically very important. Some of them have medicinal value, some have ornamental value, and a few are edible.

Since in recent years the usage of plants for medicinal purposes is increasing, knowledge of ethnobotany should be made available to all students and faculties.

Plant documentation is the only way to preserve the fundamental knowledge of the plant resources and will be useful to the campus students and faculties for further research.

Due to over exploitation and deforestation in the natural habitat, few of the presently reported plant species are endangered. Strict conservational measures are to be taken to protect these plant species from becoming rare or endangered.

BIBLIOGRAPHY

- Anonymous, 1993. Conservation on Biological diversity. Mexico
- BATANOUNY, KAMAL. (2001). Adaptation to Desiccation. 10.1007/978-3-662-04480-3.11.
- BRADLEY, H. 1849. Statistical report on the Circar of Dowlatabad, Hyderabad Deccan. Madras J. Lit. & Sci. 15: 411-551.
- CIF, (2004). Conservation International Foundation. <http://www.conservation.org>
- GAMBLE, J.S. & FISCHER, C.E.C. 1915-1936. Flora of the Presidency of Madras. Vol. 1-3 (Vols. 1 & 2 by J.S. Gamble). Adlard & Son Lts., London.
- JAIN, S.K. AND R.R. RAO 1977. Field and Herbarium methods. Today and Tomorrow publishers, New Delhi.
- KAUR & SHARMA 2014. Diversity and Phytosociological Analysis of Tree Species in Sacred Groves of Vijaypur Block, Samba (J&K). Int. J.Sc.& Res.6:3.859-862
- MANI, M.P. (1974). The flora. In. Mani, M.S. (Editor) Ecology and Biogeography in India. Dr. W. Junk bv. Publishers, The Hague. P. 159-177.
- MYERS, N., R. A. MITTERMEIR, C. G. MITTERMEIR, G. A. B. DA FONSECA & J. KENT. (2000). Biodiversity hot spots for conservation priorities. Nature 403: 853- 858.
- PATRIDGE, E.A. 1911. Forest Flora of H.E.H. the Nizam's dominions, Hyderabad Deccan. A.V. Pillai & Sons, Hyderabad.

- RAGAN, A. & RAJU, V.S. 1990. *Eleocharis setifolia* (A.Rich.) Raynal and *Scleria multilacunosa* T. Koyama: Two unreported sedges from peninsular India. Indian J.Bot. 13: 199-203.
- RAGAN, A. SAMATA, A. & RAJU, V.S. 2005. *Flemingia involucrata* (Fabaceae): A new record for Andhra Pradesh. Indian J. Forestry 28(2): 164-165.
- RAJU V.S., REDDY, C. S. & RAGAN, A. 2005. *Curcuma L.* (Zingiberaceae) in Andhra Pradesh: A preliminary study. J. Econ. Taxon. Bot. 28 (2): (in press).
- RAJU, V.S. & SAMATA, A. 2004. *Caralluma stalagmifera* (Asclepiadaceae): A common but overlooked species in Andhra Pradesh. J. Econ. Taxon. Bot. 28: (in press).
- RAO, P.N., V.S. RAJU and RAO, R.S. 1981. Floristic research works in Andhra Pradesh. Bull. Bot. Surv. India. 23: 90-95.
- REDDY, C.S. 2001. *Hybanthus vatsavayii* (Violaceae): A new species from Andhra Pradesh, India. J. Econ. Tax. Bot. 25: 219,220.
- REDDY, C.S. 2002. Floristic Studies in Warangal District, Andhra Pradesh, India. Ph.D. Thesis, Kakatiya University, Warangal.
- REDDY, C.S., BHANJA, M.R. & RAJU, V.S. 1999a. Angiospermic flora and biological spectrum of Jakaram Reserve Forest, Warangal district, Andhra Pradesh. Indian Forester 125: 152-1166.

- REDDY, C.S., BHANJA, M.R. & RAJU, V.S. 1999b. *Nicotiana plumbaginifolia* Viv. And *Youngia japonica* (L.) DC. – New records for the flora of Andhra Pradesh, India. J. Econ. Tax. Bot. 23: 685-686.
- REDDY, C.S., BHANJA, M.R. & RAJU, V.S. 2000. *Cassia uniflora* Miller: A new record for Andhra Pradesh, India. Indian J. Forestry 23: 324,325.
- REDDY, C.S. & RAJU, V.S. 1999. *Gnaphalium coarctatum* Willd. (Asteraceae): A new record for southern India. J. Econ. Tax. Bot. 23: 687-688.
- REDDY, C.S. & RAJU, V.S. 2001. A new variety of *Cleome chelidonii* (Cleomaceae). J. Econ. Tax. Bot. 25: 217,218.
- REDDY, P.S. 1985. Floristic Studies of Warangal and Epidermology of Cyperaceae as an Aid to Taxonomy. Ph.D. thesis. Osmania University, Hyderabad.
- REDDY, B.; RAO, V.H. REDY VB AND RAO, VV 2014. Diversity and richness of herb species in peddagattu, the proposed site for uranium mining, Nalgonda district, Telangana state, India. Global Journal of Multidisciplinary Studies. 11:(3).197-204.
- SAMATA, A. & RAJU, V.S. 2004. *Caralluma adscendens* var. *fimbriata*, another overlooked succulent from Andhra Pradesh. J. Econ. Taxon. Bot. 28:
- SAYEEDUDDIN, M. 1935-36. Some of common flowering plants of the Hyderabad State: their distribution, economic and medicinal importance. J. Royal Asiat. Soc. Bengal (Sci.) 1: 9-22; 2: 73-94.
- SAYEEDUDDIN, M. 1941. Additions to our knowledge of the flowering plants of H.E.H. the Nizams Dominions, Hyderabad, Deccan. J. Bombay Nat. Hist. Soc. 42: 930-924.

- REDDY, C.S., BHANJA, M.R. & RAJU, V.S. 1999b. *Nicotiana plumbaginifolia* Viv. And *Youngia japonica* (L.) DC. – New records for the flora of Andhra Pradesh, India. J. Econ. Taxon. Bot. 23: 685-686.
- REDDY, C.S., BHANJA, M.R. & RAJU, V.S. 2000. *Cassia uniflora* Miller: A new record for Andhra Pradesh, India. Indian J. Forestry 23: 324,325.
- REDDY, C.S. & RAJU, V.S. 1999. *Gnaphalium coarctatum* Willd. (Asteraceae): A new record for southern India. J. Econ. Tax. Bot. 23: 687-688.
- REDDY, C.S. & RAJU, V.S. 2001. A new variety of *Cleome chelidonii* (Cleomaceae). J. Econ. Tax. Bot. 25: 217,218.
- REDDY, P.S. 1985. Floristic Studies of Warangal and Epidermology of Cyperaceae as an Aid to Taxonomy. Ph.D. thesis. Osmania University, Hyderabad.
- REDDY, B.; RAO, V.H. REDY VB AND RAO,VV 2014. Diversity and richness of herb species in peddagattu, the proposed site for uranium mining, Nalgonda district, Telangana state, India. Global Journal of Multidisciplinary Studies. 11:(3).197-204.
- SAMATA, A. & RAJU, V.S. 2004. *Caralluma adscendens* var. *fimbriata*, another overlooked succulent from Andhra Pradesh. J. Econ. Taxon. Bot. 28:
- SAYEEDUDDIN, M. 1935-36. Some of common flowering plants of the Hyderabad State: their distribution, economic and medicinal importance. J.Royal Asiat. Soc. Bengal (Sci.) 1: 9-22; 2: 73-94.
- SAYEEDUDDIN, M. 1941. Additions to our knowledge of the flowering plants of H.E.H. the Nizams Dominions, Hyderabad, Deccan. J. Bombay Nat. Hist. Soc. 42: 930-924.

SEBASTINE, K.M. & HENRY, A.N. 1966. A contribution to the flora of Pakhal and surrounding regions of Narsapur taluk, Warangal district, Andhra Pradesh. Bull. Bot. Surv. India 8: 304-311.

SEN M & KESHARI KK 2019. Green campus report. Directorate of Technical Education, 4th Floor, Satpura Bhawan Bhopal 462004 (MP). Pp.1-4.

WALKER, A.L. 1849. Statistical report on the Circar of Warangal, Hyderabad Deccan. Madras J. Lit. & Sci. 15: 219-301.

WARNER, F. (1982). Indo-Sweedish forestry programme II – Background Documents. Govt. India, New Delhi.

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: T. Vedhaveshti

GROUP: B2C.

HALL TICKET NUMBER 033223078

YEAR: 1st year

1) Project Title:

A study on plant diversity of Government Degree College Bhadrachalam and its surrounding -ngs.

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding and

3) Tell us about any problems you encountered with your project.

man's cutting of trees for his needs as well as the cutting of vegetation for road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them for clean unpolluted air

T. Vedhaveshti

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: S. Sunitha

GROUP: B.Z.C

HALL TICKET NUMBER 033-21-2059.

YEAR: 3rd

1) Project Title:

A study on plant diversity of government degree college Bhadrachalam and its surroundings.

2) Tell us what you did. A small project we are doing to find out what kind of vegetation is present in Bhadrachalam, and surrounding countryside.

3) Tell us about any problems you encountered with your project.

Man's cutting of trees for his needs as well as the cutting of vegetation for road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants webs of small animals such as butterflies and grasshoppers that rely on them. For clean unpolluted air.

S. Sunitha.

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: J. Sravani

GROUP: BZC

HALL TICKET NUMBER 033213014

YEAR: IIIrd year

1) Project Title:

A study on plant diversity of government degree college Bhadrachalam and its surroundings.

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding countryside.

3) Tell us about any problems you encountered with your project.

man's cutting of trees for his needs as well as the cutting of vegetation for road widening lack of awareness among the general public about the endangered plants.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them. For clean unpolluted air.

J. Sravani

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: O. Abhishek

GROUP: B2C.

HALL TICKET NUMBER 033223049

YEAR: 2nd year

1) Project Title:

A study study on PLANT DIVERSITY OF GOVERNMENT DEGREE COLLEGE BHADRACHALAM AND ITS SURROUNDING

2) Tell us what you did. A Small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding countryside

3) Tell us about any problems you encountered with your project.

man's cutting of trees of his needs as well as the cutting of vegetation of road widening lack of awareness among the general public about the endangered plant species

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them for clean unpolluted air.

O. Abhishek

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: S. Prityanka

GROUP: B.Z.C

HALL TICKET NUMBER 033-21-3047

YEAR: 3rd year

1) Project Title:

A STUDY ON PLANT DIVERSITY OF GOVERNMENT DEGREE COLLEGE BHADRACHALAM AND ITS SURROUNDINGS.

2) Tell us what you did. A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding countryside.

3) Tell us about any problems you encountered with your project. man's cutting of trees of his needs as well as the cutting of vegetation of road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community? the uses of plants are web of small animals such as butterflies and grasshoppers that rely on them. for clean unpolluted air.

S. Prityanka
SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: M. Arunakumari

GROUP: B2C

HALL TICKET NUMBER 033213025

YEAR: IIIrd year

1) Project Title:

A Study on plant diversity of Government Degree college Bhadrachalam and its surroundings.

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding and surrounding countryside.

3) Tell us about any problems you encountered with your project.

Man's cutting of trees for his needs as well as the cutting of vegetation for road widening. Lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them. for clean unpolluted air.

SIGNATURE OF THE STUDENT

M. Arunakumari

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: N. Harshvardhini

GROUP: B2C

HALL TICKET NUMBER 033223047

YEAR: IInd year

1) Project Title:

A STUDY ON PLANT DIVERSITY OF GOVERNMENT DEGREE COLLEGE BHADRACHALAM AND ITS SURROUNDING

2) Tell us what you did. A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding countryside.

3) Tell us about any problems you encountered with your project. Man's cutting of trees of his need as well as the cutting of vegetation of road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community? The uses of plants are wet of small animal such as butterflies and grasshoppers that rely on them for clean unpolluted air.

N. Harshvardhini

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: SK. Masthanvalli

GROUP: BZC-

HALL TICKET NUMBER 033 223045

YEAR: IInd year.

1) Project Title:

A study on plant diversity of Government degree college Bhadrachalam and its surroundings.

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding and surrounding countryside.

3) Tell us about any problems you encountered with your project.

Man-culting of trees for his needs as well as the cutting of vegetation for road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

We uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them for clean unpolluted air.

SK. Masthanvalli

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: P. Varsha

GROUP: B2C

HALL TICKET NUMBER 033243043

YEAR: IIIrd year

1) Project Title:

A Study on plant diversity of Government Degree College Bhadrachalam and its Surrounding - ndigs

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and Surrounding and Surrounding Countryside.

3) Tell us about any problems you encountered with your project.

Man's Cutting of trees for his needs as well as the Cutting of vegetation for road widening has of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are webs of small animals such as butterflies and grasshoppers that rely on them. For clean unpolluted air.

P. Varsha

SIGNATURE OF THE STUDENT

GOVERNMENT DEGREE COLLEGE, BHADRACHALAM
DEPARTMENT OF BOTANY

Study Project Completion Evaluation Form

STUDENT NAME: P. Ribika

GROUP: B2C

HALL TICKET NUMBER 033223B

YEAR: IIIrd year.

1) Project Title:

A Study on plant diversity of Government Degree College Bhadrachalam and its surroundings.

2) Tell us what you did.

A small project we are doing to find out what kind of vegetation is present in Bhadrachalam and surrounding countryside.

3) Tell us about any problems you encountered with your project.

man's cutting of trees for his needs as well as the cutting of vegetation for road widening lack of awareness among the general public about the endangered plant species.

4) In what way did your project make a meaningful or lasting difference in the community?

The uses of plants are habitats of small animals such as butterflies and grasshoppers that rely on them. for clean unpolluted air.

P. Ribika.

SIGNATURE OF THE STUDENT