



V.S.R. GOVERNMENT DEGREE & P.G. COLLEGE

MOVVA-521135, KRISHNA DISTRICT, ANDHRA PRADESH

NAAC Accredited with "A" Grade (3.01 CGPA)

ISO 9001:2015, 14001:2015, 50001:2011 Certified Institution

(Affiliated to Krishna University)



Email Id: gdcjkc.movva@gmail.com

Mobile: 9948121714

Phone No: 08671 252451

Website: www.gdcmovva.ac.in

DEPARTMENT OF BOTANY

STUDENT STUDY PROJECT

SEMESTER II, I B.Sc BZC

STUDENT STUDY PROJECT
ON
CAMPUS PLANT DIVERSITY
INVESTIGATORS

ALL THE STUDENTS II B.Sc BZC

Supervised by
Sri.M.ANIL KUMAR
LECTURER IN BOTANY
DEPARTMENT OF BOTANY
V.S.R.GOV'T.DEGREE COLLEGE
MOVVA, 521135
KRISHNA Dt

ACKNOWLEDGEMENT

Our sincere and deep felt thanks to Sri.M.ANIL KUMAR In-charge lecturer, Department of Botany for his motivation, guidance and help for successful submission of this student project. We also extend our thanks to others who have helped us directly or indirectly for timely completion of the work. Our reverential thanks to Dr.S.Madhavi, principal for encouragement.

INVESTIGATORS

K. BHAVITHA II nd Semester

K. MEENA II nd Semester

Ch. BHARATHI II nd Semester

J. SUBHASH II nd Semester

T. AKHILA II nd Semester

J. SOWJANYA II nd Semester

CONTENT

- 1. INTRODUCTION**
- 2. NEED OF THE STUDY**
- 3. METHODOLOGY**
- 4. DETAILS OF THE WORK**
- 5. SUMMARY**

INTRODUCTION

Hominids have coevolved with plants for millions of years; the skulls of ancient hominid reflect the nature of the plant species they ate, while more recently we domesticated plants to suit our needs, leading to a dramatic cultural shift from hunter-gatherer to agricultural societies. Our deep relationship with, and understanding of, plants has enabled us to harness their nutritional, medicinal, and aesthetic benefits. Here, I describe how science can facilitate the further exploration of plant species, providing the information we need to adapt plants to enable us to meet the demands of the growing population or to identify novel plant-derived compounds with important medical applications. Many of the major global challenges we face will also impact our relationship with plants; we must protect their biodiversity, which holds vital information and solutions that will help us to cope with these problems. Discoveries arising from the research pipeline of basic and applied research will yield new technologies to both utilize and protect our relationship with plants in the future.

Plants are considered pivotal for our well-being, not only as food, but also as key components of our cultures, religions, and medicines. This can be seen in the way that the beautiful curve of a tendril inspires art, or in the fact that indigenous forest peoples collect plant materials for medicinal use or for religious practices. We do not just get nourishment from plants, they are central to our societies.

We can see the importance of our relationship with plants in ancient art. Ancient petroglyphs carved by the Pueblo Native Americans depict maize (*Zea mays*), illustrating how important this particular plant is to their culture. Paintings from the Minoan civilization (2600–1100 BC) portray papyrus (*Cyperus papyrus*), while lychees (*Litchi chinensis*) are often represented in the

exquisite art of China. Plants have inspired humans for a long time. Study of the surrounding vegetation develops a bond with them, understand the plant diversity, ecological conditions of the area and knowledge of economically useful plants.

OBJECTIVES OF THE STUDY

1. To know the flora of the campus
2. To know the domination plant species and family
3. To learn taxonomic details of the plants
4. To inculcate research skills

METHODS

1. Survey method
2. Field visit
3. consultation
4. using web apps

DETAILS OF CAMPUS FLORA

1. Aloe vera – family Liliaceae



2. Azadirachta indica – family Meliaceae



3. Aerva lanata – family Amaranthaceae



4. *Adenium obesum*–family Apocyanaceae



5. *Asparagus racemosus*–family Asparagaceae



6. *Agave attenuata*-family Asparagaceae



7. *Andrographis paniculata*–family Acanthaceae



8. *Bougainvillea spectabilis*–family *Nyctaginaceae*



9. *Bauhinia purpurea*–family *Caesalpiniaceae*



10. *Boerhaavia diffusa*–family *Nyctaginaceae*



11. Ceiba

pentandra-

familyBombacace



12. Chrysolidocarpuslutescens-

familyAracaceae



13. *Cycas revoluta*—family Cycaceae



14. *Calotropis gigantea*—family Asclepiadaceae



15. *Calotropis procera*—family Asclepiadaceae



16. *Crynumviviparum*-familyAmarylladaceae



17. *Cissusquadrangularis*–familyCissaceae



18. *Durantarepans*–familyVerbanaceae



19. *Ecboiumliquistinum*–familyAcanthaceae



20. *Emblicaofficinalis*–familyEuphorbiaceae



21. *Ficusbengalensis*– familyMoraceae



22. *Ficus religiosa*—family Moraceae



23. *Gardenia jasminoides*—family Rubiaceae



24. *Hyptis suaveolens*—family Lamiaceae



25. *Ixora coccinea*—family Rubiaceae



26. *Jatropha penduliformis*—family Euphorbiaceae



27. *Mangifera indica*—family Anacardiaceae



28. *Murrayapaniculata* –familyRutaceae



29. *Mimusopselengi*–familySapotaceae



30. *Millingtoniahortensis*– familyBignoniaceae



31. *Nerium indicum*—family Apocynaceae



32. *Nyctanthes arbor-tristis*— family Nyctaginaceae



33. *Opuntia dillenii*—family Cactaceae



34. *Pedilanthus tythimaloides*—family Euphorbiaceae



35. *Psidium guajava* –family Rutaceae



36. *Peltophorum ferrugineum*—family Caesalpinaceae



37. *Pongamia glabra*—family Fabaceae



38. *Plumeria alba*—family Apocyanaceae



39. *Plumeria pudica*—family Apocyanaceae



40. *Polyalthea longifolia*—family Annonaceae



41. *Sansevieria roxburghiana*— family Asparagaceae



42. *Syzizium cumini*—family Myrtaceae



43. *Tecomastans*–familyBignoniaceae



44. *Tectonagrandis*–familyVerbanaceae



45. *Tephrosiapurpurea* –familyFabaceae



46. *Tridax procumbens*—family Asteraceae



47. *Vernonia cinerea*—family Asteraceae



48. *Vincetoxicum*—family Apocynaceae



49. *Zizipus jujube*— family *Rhamnaceae*



50. *Zephyranthus grandiflora*—family *Amaryllidaceae*



ANALYSIS OF THE REPORT

Fifty plants are identified which are mostly ornamentals with showy morphology. They are spread all over the campus evenly and added the beauty to the college. They include few herbs, shrubs and mostly tree species. Apocyanaceae, Cactaceae and Caesalpinaceae families species are dominant, the rest of the family species are comparatively less in number.

1. Apocyanaceae–5
2. Asclepiadaceae–2
3. Anacardiaceae–1
4. Amaranthaceae–1
5. Asparagaceae – 2
6. Asteraceae–2
7. Acanthaceae–1
8. Amaryllidaceae– 2
9. Aracaceae –1
10. Annonaceae-1
11. Bignoniaceae–2
12. Bombaceae- 1
13. Cactaceae–1
14. Caesalpinaceae–2
15. Cycadaceae– 1
16. Cissaceae-1
17. Euphorbiaceae- 3
18. Fabaceae-2

19. Lamiaceae-1
20. Liliaceae-1
21. Moraceae-2
22. Myrtaceae-2
23. Meliaceae-1
24. Nyctaginaceae-3
25. Rutaceae-2
26. Rubiaceae-2
27. Rhamnaceae-1
28. Sapotaceae-1
29. Verbanaceae-2

As per the list it is clearly evident that most number of the species (05) belong to Apocyanaceae. With 03 species each Euphorbiaceae and Nyctaginaceae families are in second place, Asclepiadaceae, Asparagaceae, Asteraceae, Amarylladaceae, Bignonaceae, Caesalpinaceae, Fabaceae, Moraceae, Myrtaceae, Rutaceae, Rubiaceae and Verbanaceae come next with 02 species each. Rest of the families have one species each.

SUMMARY

Plants are considered pivotal for our well-being, not only as food, but also as key components of our cultures, religions, and medicines. This can be seen in way that the beautiful curve of a tendril inspires art, or in the fact that indigenous forest peoples collect plant materials for medicinal use or for religious practices. We do not just get nourishment from plants, they are central to our societies. Plant identification is an art and also a useful deed, study of a place where we are dwelling is also equally important for immediate use of the plants with the knowledge. With these aims present study has been carried out i.e. Study of Campus Plant Diversity. In addition to the main aim certain other objectives are also thought to have been achieved like associating students with the nature, provoking interest of plant survey and connecting indoor class room experiences with the real outdoor experience.

A total of 50 ornamental and orchard species of different 29 families have been identified, of them most number of the species (05) belong to Apocynaceae. With 03 species each Euphorbiaceae and Nyctaginaceae families are in second place, Asclepiadaceae, Asparagaceae, Asteraceae, Amaryllidaceae, Bignoniaceae, Caesalpiniaceae, Fabaceae, Moraceae, Myrtaceae, Rutaceae, Rubiaceae and Verbanaceae come next with 02 species each. Rest of the families have one species each. Present study was limited to economically important plants.

FURTHER WORK

1. Weed plants should be covered.
2. Medicinal properties of each plant should be surveyed.
3. Ecological diversity can be covered.
4. Non flowering plant species can be explored

BIBLIOGRAPHY

1. DeOnis, M., Blössner, M., & Borghi, E. (2012). Prevalence and trends of stunting among pre-school children, 1990–2020. *Public Health Nutrition*, **15**, 142–148. <https://doi.org/10.1017/S1368980011001315>
2. Raven, P. (2019). Saving plants, saving ourselves. *Plants, People, Planet*, **1**, 8–13. <https://doi.org/10.1002/ppp3.3>