

Orientation program on Plant morphology, Anatomy and Conservation to the School students of Sri Vidya Mandir, Malleshwaram, Bangalore

Date: 24th and 31st July 2015

Venue: TransDisciplinary University (TDU), Bangalore

Background:

The cities have witnessed an incredible urbanization of late, in the name of modernization leading to rapid diminishing of green cover. It is necessary to maintain an ecological balance, a truth not sufficiently appreciated and understood in the world of urbanist advocacy. Cities need both beauty and function of nature to regulate pollution, restore and improve human and ecosystem health. Understanding and appreciation of urban ecosystem and planning development in harmony with nature can go a long way in building a healthy urban ecology and therefore, pertinent to mould the young mind in conserving the biotic components in a whole hearted and conscious manner.

In this context, TDU has developed a short, interactive program, keeping in mind the student pursuing their secondary education. This program gives an opportunity to learn the basics of taxonomy, anatomy and conservation of plants and designed in line with their school curriculum.



A class room session in progress

The Program:

84 students of 8th and 9th standard from Sri Vidya Mandir High School, Malleshwaram, Bangalore participated in the orientation program in two batches on 24th and 31st July 2015. The program was divided into theory, practical and field exposure. The students were taught basic taxonomy, biodiversity and its symbiotic relationship. They were also given lessons on concept of conservation. They were



Dr Noorunnisa demonstrating slide preparation

then taken to the anatomy lab where they were given hands on training on preparing anatomy slides



A practical session

of dicot and monocot stem. They were able to see the various types of cells through the microscope (Xylem, Phloem, Epidermis, Cortex).

The students were then taken to the ethno-medicinal garden where the botanists explained the methods to identify the plants through the specific characters of leaf, flower, branching, smell/aroma, historic events, plant-animal interactions etc., They could also see some of the

rare and endemic plants and species of conservation concern.

They had the opportunity to see various plants assembled in thematic gardens. They could also see species in the nursery which are used in Primary Health Care. They were also taught about the importance of vermicompost that is located in the premises of ethno-medicinal garden.



A student examining the cross section of a stem under microscope

Students were taught about the importance of plant and animal diversity with respect to successful pollination and, thus fruit productivity.

They were also taught about the negative effect of use of synthetic pesticide and

fertilizers on the pollinators and thus, the need and preparation of biocompost which helps to reduce the use of synthetic fertilizer.

Learnings: The students made note of all the information given to them and elicited interest in identification of more species. They also understood fairly well the basics of taxonomy and anatomy and the need of conservation of the threatened species. They imbibed the concept of conservation and ecological balance required for survival of biodiversity.



A student excited in experimenting with a plant



Dr Ravikumar explaining the finer aspects of identification



Students exposed to nursery plants

Feedback: It was felt by students that more field related sessions could be included as part of the program. It was also suggested that sufficient time may be allotted on field activities.

Course coordinator:

Dr. M. Abdul Kareem,
Associate Professor,
TransDisciplinary University (TDU),
No. 74/2, Jarakabande Kaval, Attur Post,
Via Yelahanka, Bangalore 560106
Ph: 080-28568006 Cell: 09343130299

Resource Persons:

1. Dr. Ravikumar K (Taxonomist), Professor
2. Dr. Abdul Kareem (Ethnobotanist), Associate Professor
3. Dr. Noorunnissa Begum (Plant anatomist), Senior Assistant Professor
4. Dr. DebabrataSaha (Ecologist), Senior Scientist
5. Sri. KSN Prakash, Program Officer
6. Ms. Anu.V, Research Fellow

Teachers:

Smt. Savitha D Mane
Smt. Rani. I

Smt. Usha Ram Prasad
Smt. Prema Ponnappa

VIII- Standard Students

1. N. Surya Darshan
2. Alok. N.
3. Tejas. G. s.
4. Tejas. N.
5. Anirudhha. H.
6. PrajwalKashyak
7. Sri Raghav M. Vasisht
8. Rahul. K.
9. Varsha. V. Karanth
10. Sharanya. B.
11. Sowmya B. H.
12. Tadbhav. M.
13. Prathiksha
14. MallikaRamya. K.
15. Roopashri G. S.
16. Sookta S. Maiya
17. Nikitha d. Kamath
18. E. R. Sri Poorva Devi
19. J. Jllvitha
20. M. U. SharanyaAvadhani
21. Sandra Ravindranathan
22. U. V. Mrudula
23. K. S. Vaishnavi
24. S. Nivedhitha
25. Amrutha. B. K.
26. S. Akshya
27. R. Anusha
28. S. Vedashree
29. Bhoomika. R. Holla
30. Shreya Badarish
31. Saishri
32. Ankitha. A
33. Varun. M .
34. Aashish. R.
35. S. V. Nithesh
36. Dhathri V. M .
37. Neelavathi K. R.
38. Rakshitha. S.
39. Rmisha Fatima
40. Lakshmi
41. Soujarya. A.
42. Aditi Srinivas

IX-Standard Students

1. B. N. NanjundaSwamy
2. Kushal K. Gowda
3. Karthik H.M.
4. Tharun K. Yadav
5. Shreyas B. C.
6. Tejas. S.
7. Utthkarsha K.Y
8. Rohan. R.
9. AmoghGaikwad
10. Suhithjain
11. ShrushaShenoy B.
12. Gaurav. R.
13. K. Thilak
14. Ajay. S. Kalburgi
15. Srinidhi
16. Prajwal N. M.
17. Sujay. M.
18. Shubhanga. A.
19. Onkar. B.K
20. Shashank.R.
21. M.M. Rakshith
22. Sameera J. Shalma
23. Aditya.S
24. AhrameyaMadhusudan
25. R. GowriPriya
26. Nihara. O. S.
27. ShrishtiAdappa
28. Bhavana. U. S.
29. Harshitha.M.
30. Ruchitha Gowda. L.
31. Nanda Deepa S. R.
32. Maya Aravindakahan
33. Meghana. A
34. G. Priyanka
35. Divya. K.
36. Niharika. D.
37. S. Parimala
38. Bhavana. V.
39. Bhumika. G. P.
40. Aishwarya.V.
41. VijrthriAvadhanya M.S.
42. Divya. J.