

# Orientation Program on Plant Morphology, Anatomy and Conservation of Medicinal Plants for the School Students

**Date:** 2<sup>nd</sup> September 2015

**Venue:** TransDisciplinary University (TDU), Bangalore

**Participating School:** Nagarjuna Vidyaniketan, Yelahanka, Bangalore

## Report

### **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, TransDisciplinary University (TDU) has developed a one-day orientation program for the students who are pursuing their secondary education. This program gives students an opportunity to learn the basics of taxonomy, anatomy and methods to conserve plants in a simple format so that it is easily comprehended. This program is designed in line with their school curriculum.

### **The Program:**

The orientation program for the students of 8<sup>th</sup> standard from the Nagarjuna Vidyaniketan, Yelahanka, Bangalore was organised on 2<sup>nd</sup> Sept 2015 at the TDU campus. Thirty three students participated. The program began with an introductory session followed by a talk on the medicinal plants conservation initiatives of TDU.



Introductory session in progress

The students were then taken out on to the ethnobotanical medicinal plants garden which harbors around 750 medicinal plants dotted by rare and endangered species. It also has 13 thematic gardens depicting the diversity of medicinal plants. The students were taught the basics of taxonomy, morphology through specific characters of leaf, flower, branching, smell/aroma, historic events, plant-animal interactions etc., and its threat status. They also learned on the concept of in situ and ex situ conservation which are essential for the survival of the species.



Students absorbed in learning



Demonstration of slide preparation

They were then taken to the anatomy lab where they were given hands on training on taking section of a dicot and monocot stem for preparing slides. They were able to see the various types of cells through the microscope (Xylem, Phloem, Epidermis, Cortex).

The importance of medicinal plants in maintaining adolescent health was taught by the ayurvedic medical practitioner of the University who also demonstrated the preparation of simple formulations to the students using readily available herbal plants.

The post lunch session saw the students actively interacting with the botanists at the medicinal plant nursery. They learnt about the uses of some of the plants in primary health care and picked up a few for their kitchen garden.



The program culminated with a pep talk by the Vice Chancellor of the University who elicited the views of students on the things they learnt in TDU that are new to them. He emphasized the importance of spreading the message of traditional knowledge across the student community.



A student receiving the certificate

The students were handed over certificate of participation.

**Learnings:** The students made note of all the information given to them and elicited interest in identification of more species and growing them in their school and homes. They also understood fairly well the basics of taxonomy and anatomy and

the need for conservation of the threatened species.

#### **Course coordinator:**

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#### **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. Girsh Kumar V, Senior Assistant Professor
5. Dr. Debabrata Saha (Ecologist), Senior Scientist
6. Sri. KSN Prakash, Program Officer
7. Ms. Anu.V, Research Fellow

**Accompanying Teacher:** Smt. Selvi

**VIII- Standard Students**

1. Revath N Patel
2. Nisarga B.S
3. Supriya T L
4. Sukruthi C
5. Rakshitha R
6. Apeksha B
7. Raghavendra M
8. Mithuna T
9. Noshita Tiwari
10. Jean Ann James
11. Lohith Gowda
12. Yashas B Reddy
13. Bhomika M
14. Keerthana M
15. ParthSarathi Tiwari
16. Likith J
17. Arjun Krishna
18. Linganna U
19. G Chiranjeeve
20. Mayur Gowda
21. Gayathri S
22. Hemavathi S
23. Pruthvi N
24. Dayasagar S
25. Anisha V Prabhu
26. Vishrutha
27. Shreya Y R
28. Gagan Y R
29. Ashish S Murude
30. P Manish
31. Sriram Sundar
32. Dhanush
33. Sathwick