

**A.G & S.G Siddhartha Degree College for Arts & Science**  
**(Autonomous), Vuyyuru-521165.**

**2017-2018**

**Name of the event: Guest Lecture**

**Topic:** “Biodiversity-Essential to Life”

**Date Conducted:** 06-01-2017

**Name and designation of the resource person:** Dr. CH. Srinivas Reddy Asst. Professor Dept of Botany in PB Siddhartha College.VJA.

**Report on the guest lecturer:**

**1. Objectives:** The main objectives of Biodiversity conservation are to preserve the diversity of species, sustainable utilization of species and ecosystem and maintain life-supporting systems and essential ecological processes.

**2. Notes on lecture:**

**Biodiversity is the variation among living organisms from different sources including terrestrial, marine and desert ecosystems, and the ecological complexes of which they are a part.”**

Types of Biodiversity

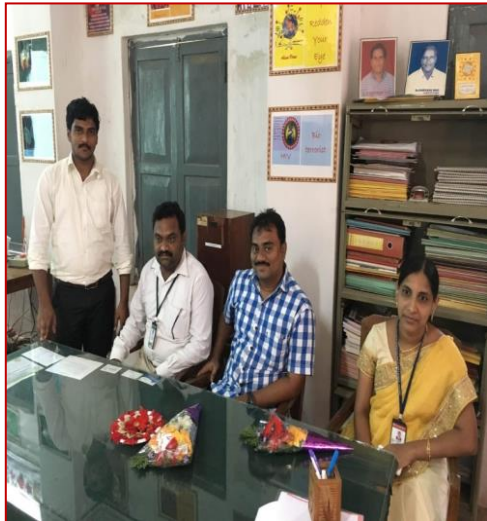
**Species Diversity:** Species diversity refers to the variety of different types of species found in a particular area. It is the biodiversity at the most basic level. It includes all the species ranging from plants to different microorganisms. No two individuals of the same species are exactly similar.

**Genetic diversity:** It refers to the variations among the genetic resources of the organisms. Every individual of a particular species differs from each other in their genetic constitution. That is why every human looks different from each other. Similarly, there are different varieties in the same species of rice, wheat, maize, barley, etc.

**Ecological diversity:** An ecosystem is a collection of living and non-living organisms and their interaction with each other. Ecological biodiversity refers to the variations in the plant and animal species living together and connected by food chains and food webs. Diversity in different ecosystems like deserts, rainforests, mangroves, etc., include ecological diversity.

**Importance of Biodiversity:** Biodiversity and its maintenance are very important for sustaining life on earth.

**3. Outcome:** Biodiversity provides vital ecosystem functions such as soil fertilization, nutrient recycling, pest and disease regulation, erosion control and crop and tree pollination.

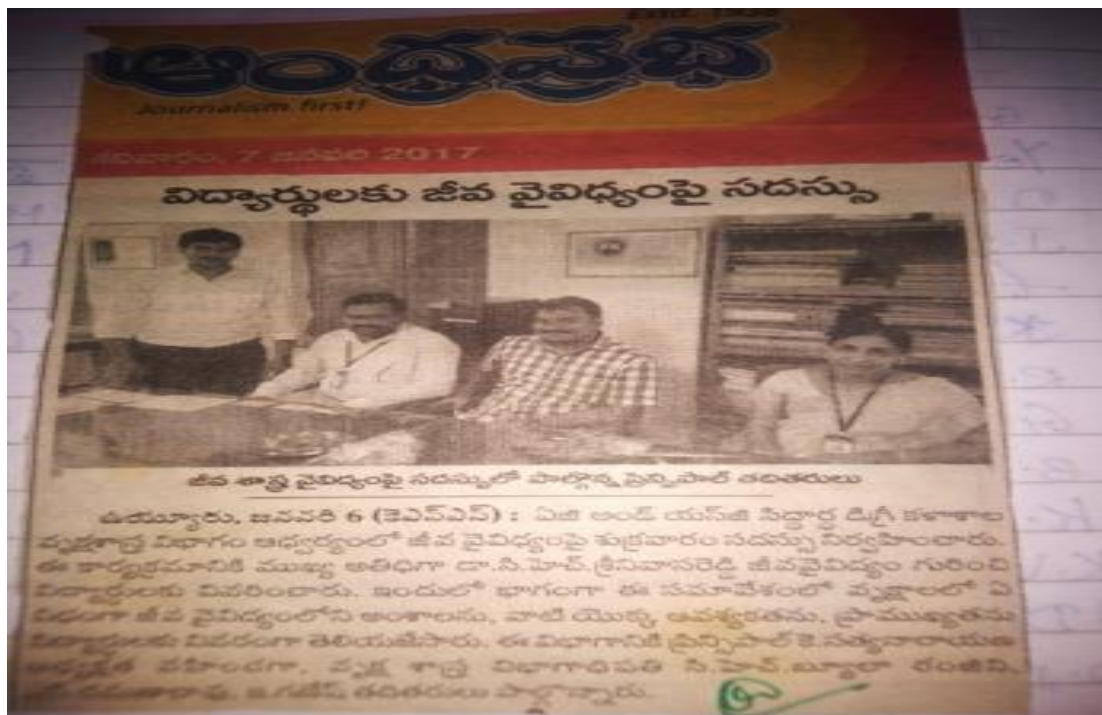


Introduced the guest by Mr. Ganesh



Dr. CH. Srinivas Reddy delivered guest lecture on Biodiversity

**News paper clipping about guest lecture:**



**NAME OF THE EVENT: FIELD**

- **Place of Visit : A field trip to ANGRAU sugarcane Research station Vuyyuru**

**Date: 06.01.2017**

- **Objective :**
- To develop practical knowledge on plant Breeding technologies adapted by sugarcane plant breeders at Coimbatore in breeding high yielding and disease resistant varieties.
- **Report:** A field trip has been arranged for III BZC Students to Sugar cane Research station reached on 10Am and observed to know various aspects of research on Sugar cane crops .The Senior scientists of the research station have explained the recent research activities and management of pests. Students are Return back as station on before college time at 5Am
  - In high yielding and disease resistant varieties selected .From those varieties produced at coimbatour the local scientists select suitable varieties for local conditions and recommended them to the farmers for cultivation. Students obtained practical knowledge and they adapt through demonstration.
- **Outcome:**  
The field trip gave a live onsite learning experience on various concepts of Plant Breeding management
- **Conclusion :**  
All the observations are recorded ley students







Plant Breeding explain by senior scientists

**A.G & S.G Siddhartha Degree College of Arts & Science,**  
**Vuyyuru**

**NAME OF THE EVENT: FIELD**

**Place of Visit: A field trip to Thenneru- Herbal garden**

**Date: 20.01.2018**

**Objective:** To develop practical knowledge on Medicinal plants

**Report:**

As per annual curricular plan of our department for Academic Year 2017-2018 it has been proposed by the department to organize a field trip to tenneru on 21/01/2018. All III BZC cluster will be participating in the field trip and they are accompanied HOD Smt.Ch BeulahRanjani & N.Ramana Rao. We started in our college at 1:00Pm and reached there by 1:45pm and had our lunch there in that awesome and beautiful garden which gave us very fun and happy students

Some xerophytic plants and medicinal plants vinca rosea, Rhaphanus sativa have

seen there in the garden there are vegetable crops grown by them, some special

plants which attracts our attention are Azolla Bottle guard.

**Outcome:**

The field trip gave a live onsite learning experience on various concepts of Medicinal plants

• **Conclusion :**

All the observations are recorded by students





Starting field trip to Tenneru

Reached at tenneru (madhu sudhan sir Herbal garden)



Observed Various Medicinal plants



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**2017-2018**

**Name of the event: Guest Lecture**

**Topic:** "Transposable Elements"

**Date Conducted:** 11-08-2017

**Name and designation of the resource person:** Dr.N.Krishna, Postdoctoral Fellow,  
Dept.of Botany& Microbiology .ANU

**Report on the guest lecture:**

**1. Objectives:** Transposable elements (TEs) are DNA sequences with the ability to move within genomes. TEs are ubiquitous throughout eukaryotic genomes and have been shown to alter regulatory networks, gene expression, and to rearrange genomes as a result of their transposition

**• 2. Notes on lecture:**

Transposable elements (TEs), also known as "jumping genes," are DNA sequences that move from one location on the genome to another.

- These elements were first identified more than 50 years ago by geneticist Barbara McClintock of Cold Spring Harbor Laboratory in New York.
- Biologists were initially skeptical of McClintock's discovery.
- Over the next several decades, however, it became apparent that not only do TEs "jump," but they are also found in almost all organisms (both prokaryotes and eukaryotes) and typically in large numbers. For example, TEs make up approximately 50% of the human genome and up to 90% of the maize genome (San Miguel, 1996).
- Transposable elements (TEs) are defined as DNA sequences that are able to move from one location to another in the genome.
- TEs have been identified in all organisms, prokaryotic and eukaryotic, and can occupy a high proportion of a species genome.
- The mobilization of TEs is termed transposition or retrotrans position, depending on the nature of the intermediate used for mobilization.

**3. Out come:** Transposable elements have been recognized as good candidates for stimulating gene adaptations through their ability to regulate the expression levels of nearby genes.



