



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



DEPARTMENT OF COMPUTER SCIENCE

REPORT	
Title:	Plantation Activity
Date and year:	Monday, 13 th March 2023
Venue:	Department of Computer Science
Resource person/s:	
Organizing Committee	FIREBITS
No. of Participants:	8 students along with faculty members
Objective:	The purpose of the tree planting exercise was to spread the word that growing trees helps to keep the environment clean, reduces pollution, and enhances the feeling of being in the great outdoors. Trees planted on school property also offer chances for environmental education, introducing youngsters to environmental protection at a youthful age. We should be concerned and take action to improve circumstances on a regular basis rather than only on special occasions.
Summary of the proceedings:	Students of BSc CS, TY brought plants from their gardens to plant them in the open area in the department. They preferred propagating plants over purchasing them. These ornamental plants won't only enhance the beauty of the department but will also signify the growth of concern in youngsters' minds and their actions to improve situations without having to spend anything. They were guided by faculty members who had knowledge about propagation and appreciated by faculty members for the initiative.

Photographs:




Dated: 13/03/2023

Report Prepared by: Prapti Ajaonkar



REPORT ON CAMPUS ACTIVITY

(Seminar / Webinar / Expert talk / Workshop / Visit to Incubators on the themes pertaining to Innovation/Entrepreneurship/Intellectual property)

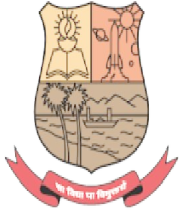
Title of the event	Cleanup of Campus and Area Around Campus
Date and time	2nd October 2022, 8:30 am to 10:00 am
Mode	Offline
Organising Department/ School/Directorate/ Section	PCCAS NSS
Resource Person/s	NSS POs
Participants in house	Faculty: <u>2</u> , Students: <u>84</u>
Faculty attended	2
Students attended	84
Total Participants	86
The objectives and description of the activity	Celebrate Gandhi Jayanti and Swach Bharat Abhiyan
Photos (minimum 5, geo- tagged)	



Benefit/Key outcome of the event in terms of learning/skills/knowledge

Importance of keeping one's surroundings clean

Signature of the Head of the Department/ Incharge :



Parvatibai Chowgule College of Arts and Science (Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



DEPARTMENT OF BOTANY

Community Seed Bank Project in Huddle College

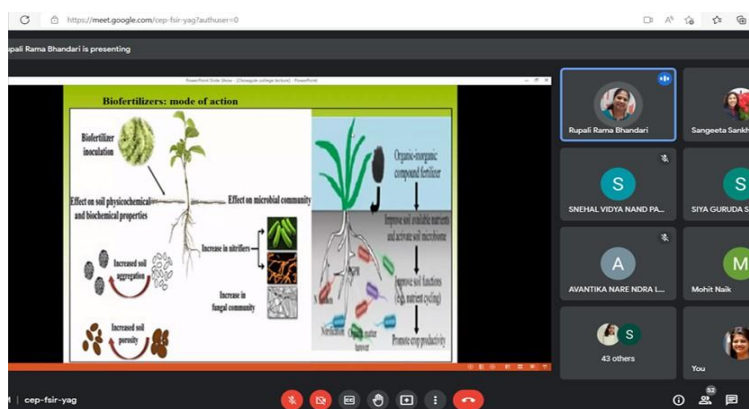
- Come PostVille, Ponda in collaboration with Parvatibai Chowgule College of Arts & Science (Autonomous) Margao, Goa launched a "community seed bank 'Project in the college called Huddle on 6th August 2022. The event was organised with the following objectives in mind: Preserving the local biodiversity, and building a vibrant community network while learning and growing together. Creating awareness about the local Biodiversity. The following activities were carried out: Plant Walk by the Botany department where the faculty and the students walked the participants through the beautiful campus and explained various trees and plants on campus. The Medicinal uses, flowering details, cultivation details etc. were explained. Seeds and Sampling swap between citizens, students, parents, faculty, and staff. The participants got along some seeds and plants and exchanged the same with the other participants. We also had the Sapling Plantation Drive. All the Environmentalists present like Dr. Suvarna Fonseca shared their experiences with the students. The event was organised and executed by Dr. Uma Masur



- The students of TY and SY Botany carried a paper bag distribution drive as a community outreach programme under the head of Environmental impact. Paper bags were distributed to pharmacies and general shops around the college. The students were guided by Ms. Amisha Pednekar for this programme on 28th July 2022.



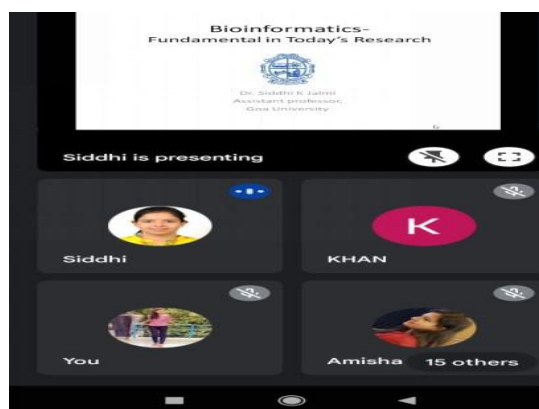
- Under Department Lecture series Online lecture was organised on Cyanobacteria as Biofertilizers was organized by Department of Botany. This Lecture was delivered by Dr. Rupali Bhandari, Assistant Professor and Program Director, Botany School of Biological Sciences and Biotechnology Goa University On 29th August 2022, 11:30 am. The talk was planned and executed by Ms. Amisha Pednekar.



- TYBSc students as a part of the course Organic Farming visited the KOCL research centre and Organic Farm on 23rd September 2022. The students were accompanied by Ms. Amisha Pednekar.



An online lecture was organized by Botany Department on 14th October 2022, in online mode. The resource person was Dr. Siddhi Jalmi Assistant Professor Department of Botany Goa University. This Lecture was delivered by Dr. Siddhi Jalmi, Assistant Professor Goa University On 14th October 2022, 10:00 am. A very informative and interesting lecture was delivered for the students. Various terms were discussed with emphasis as well as the role of Bioinformatics in the research work. The main objective of this lecture was To enlighten the students about the importance of Bioinformatics. To educate the students about the use of the Bioinformatics during futher studies.



- To showcase the beauty of flowers and leaves through creativity & celebrate Diwali in an eco-friendly fashion, "Club Botanica" organised a 'Floral Rangoli Competition' on October 20, 2022 from 1 pm - 3 pm for the students of all departments. The main organisers of this event were the students of SY B.Sc. Botany guided by Mrs. Amisha Shirodker, Asst. Professor, Department of Botany and assisted by Ms. Ansifa Simoes, Asst. Professor, Department of Botany. The theme was 'Let's make this Diwali a green Diwali' and this competition was full of creativity as the colourful rangolis initiated a festive ambience where art meets tradition.



- As a part of the syllabus prescribed in the paper 'Bioresource Management' a field trip to Sahakari spice farm was organised on October 29, 2022 from 10:30 am - 3 pm for the students of S.Y BSc. Of the botany departments. The trip was organised and guided by by the course teacher Miss Ansifa Simoes, Asst. Professor, Department of Botany A total of 8 students were taken for the visit where they learnt a lot about the different spices and condiments grown at the Spice farm and also were briefed about the processing practices employed for a few spices and condiments, among the others present in the farm.



- The SYBSc students as a part of the course Herbal Cosmetology visited the Gomantak Ayurved Mahavidyalay & Research Centre Shiroda on 8th November 2022. The students were accompanied by Ms. Sonali Gaonkar.



- The Department of Botany was organized one day state level Hands on training on Herbal Soap Making on 10th November 2022, at 9:30 am. The guest was alumini of Parvatibai chowgule college of Arts and Science Ms. Asmeeta chari who gave the demonstration how to prepare soap by using different herbs.



- Club Botonica, Botany department of Botany, Parvatibai Chowgule College of Arts & Science (Autonomous) Margao, Goa organised leaf painting competition on 27th January 2023 at Botany Department lab. The event received an overwhelming response with the participation of over 70 students. Organisers of this event were the students of FY B.Sc. Botany guided by Mrs. Amisha Shirodker, Asst. Professor, Department of Botany. The competition was judged by Ms. Shalma Mascarenhas, Ms. Mithali Halarnkar, Ms. Prasanna Gaonkar, Asst. Professor, Department of zoology. The objective of this competition was to bring out the creative expression & artistic skills of the students. The winners of the competition were: 1st place: Anjali Rodrigues (SYBsc CS department) 2nd place: Teju Patil (TYBA Double Major Konkani and Geography) 3rd place: Linoshka Dias (SYBsc Zoology).



Winners 1st Place



2nd place



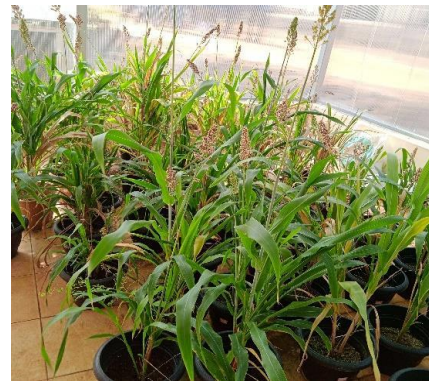
3rd place



- Prof. Sangeeta Sankhalkar, along with Dept faculties Ms. Amisha Pednekar and Ms. Sonali Gaonkar along with all the Botany students and 5 students each from Biotechnology and Biochemistry, visited School of Biosciences, BITS PILANI GOA Campus on 16 Jan 2023. The visit was arranged by Dr. Kundan Kumar, BOS member of the Botany Dept. under the sanctioned SSR Project scheme of DST, SERB New Delhi to Dr. Kundan. The objective of the visit was to have Institute Collaboration, Resource sharing in terms of exposure to the laboratories & future prospects for Higher Education. The visit was coordinated by Prof Sankhalkar. Students were exposed to lab facilities in Biological Sciences, along with major experiments in Molecular Biology were conducted with the involvement of the students upto the level of obtaining results from these experiments.




Bits Pilani Campus




Transgenic Sorghum


- As a social responsibility, to create awareness about the Waste management and our role as a society an online talk was organised on On 27th January 2023 at 2.00- 3.00 pm on the topic “Not in my Backyard”. The resource person was Dr. Suphala Pujari, Assistant Professor, Department of Zoology Govt. College of Arts, Science and Commerce, Sanquelim. The talk was planned and executed by Dr. Uma Masur.



Parvatibai Chowgule College of Arts and Science
(Autonomous)
Accredited by NAAC with Grade 'A+' (CGPA Score 3.27 on a 4 Point Scale)
Best Affiliated College-Goa University Silver Jubilee Year Award



Department of Botany
organises
webinar on
TOPIC: NOT IN MY BACKYARD
to sensitize students about Waste management and our role as society



Speaker: Dr. Suphala Pujari
Assistant Professor, Department of Zoology, Govt. College of Arts, Science and Commerce, Sanquelim
link: <https://meet.google.com/bxr-meaj-bsg>

- Parvatibai Chowgule College of Arts and Science (Autonomous) Margao Goa conducted Alumni meet on Saturday, 11th February 2023 from 9:00 am – 6:00pm. Botany alumni also attended the event. The aim of the meet was to connect with the alumni of the college.



- The TY BSc students of Botany Department of Parvatibai Chowgule College presented Poster in the second International Conference in collaboration with the Department of Zoology and IQAC Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya (PDUAM), Behali, organized by “Biodiversity: Exploration, Exploitation and Conservation for Sustainable Development (ICB- 2023)” on February 10th and February 11th 2023 in online mode.

Cellulolytic Activity of Litter Fungi Isolated from Specific Litter of Salcete, Goa

Rhan Sadiya, Vaz Shannon, Rodrigues Swetha, Naik Prachi, Sharma Preety and Amisha Shirodker Pednekar
Department of Botany, Parvatibai Chowgule College of Arts and Science (Autonomous)

Introduction

- Fungi are important organisms in terms of their ecological and economic roles as they play a major role in the degradation of substances like disaccharides, polysaccharides. (Lacking et al., 2009).
- Litter is basically the dead plant materials, such as leaves, needles etc, that has fallen on the ground. The fungi from litter can be exploited for enzyme production. (Gayashankar and Geethanjali 2014).
- Cellulase is produced by fungal genera such as *Rhizopus* and *Aspergillus*. These fungal species attack cellulose and produce significant amount of cell free cellulase which hydrolyses cellulose. Cellulose is the most abundant polysaccharide. (Gopinakdo A. et al.; 2007).
- Cellulases are enzymes that hydrolyse beta-1,4 linkage in cellulose chains. They are produced by fungi, bacteria, plants and animals. The enzyme cellulase is a complex association of three enzymes, exo-glucanase, endo-glucanase and beta-glucosidase. (Tomme et al.; 1995).
- Cellulase is a highly important enzyme and can be expensive. However, producing the enzyme using locally available agricultural wastes as substrates may serve as cost effective method.

Observation

Code	Genus	Isolated From	Fungal Isolated	Cellulase Hydrolytic Percentage
C1a	<i>Rhizopus</i>	Mango	<i>Rhizopus oryzae</i>	85.92%
C1b	<i>Rhizopus</i>	Cocunut	<i>Aspergillus aculeatus</i>	86.92%
C1c	<i>Rhizopus</i>	Mango	<i>Aspergillus niger</i>	83.87%
C1d	<i>Rhizopus</i>	Mango	<i>Aspergillus niger</i>	77.43%
C1e	<i>Aspergillus</i>	Mango	<i>Aspergillus sp.</i>	93%

Methodology

```

graph TD
    A[Litter sample collection] --> B[Inoculation on PEA to obtain pure cultures]
    B --> C[Isolating pure cultures of Rhizopus and Aspergillus]
    C --> D[Screening for cellulolytic activity Technique used: Congo red assay Sazci et al (1986)]
    D --> E[Study of structure of Cellulase (NCHI)]
    
```

Images

Results & Discussion

Rhizopus sp. and *Aspergillus sp.* from litter of mango and cocunut were isolated from Salcete Taluka, Goa. A total of 11 isolates of *Rhizopus sp.* and 08 of *Aspergillus sp.* were obtained as pure cultures. Of the obtained isolates the 5 best performing cultures were picked for this study. Fig. 1 shows the *Rhizopus sp.* as seen under Stereomicroscope (Magnus). Fig. 2A shows *Aspergillus sp.* under Stereomicroscope (Magnus). Fig 2B is a colony of the pure culture of *Aspergillus* and Fig. 2C is the Halo seen after the Congo red assay.

The details of the cultures, the source litter is as mentioned in Table 1. The cellulase degrading capability of these cultures was qualitatively tested and the results were promising enough. The highest cellulolytic activity was shown by *Rhizopus sp.* isolated from Mango litter from the Canconim area. Whereas the least activity was expressed by *Aspergillus sp.* isolated from Mango from Davorlim area as seen in Fig 3. The graph exhibits the cellulolytic performance of the five selected strains of the fungi. Overall, the cellulase degrading capacity of *Rhizopus sp.* was seen to be better than that of *Aspergillus sp.*

A study of the cellulase structures produced by *Aspergillus* and *Rhizopus* is done using the resources available at National Center for Biotechnology Information (NCHI). The structures were compared at individual level. The resulting cladogram is as seen in Fig. 4 and Fig. 5.

Fig. 4 shows the comparative analysis of the cellulase structures produced by various species of *Rhizopus*. Of the six isolates the structure of cellulase produced by *R. oryzae* exhibited structural differences. Fig. 5 shows the comparative analysis of the cellulase structures produced by various species of *Aspergillus*. Of the five isolates the structure of cellulase produced by *A. niger* was structurally different.

Conclusion

The fungi showed promising cellulolytic activity. However, further work needs to be carried out to estimate the quantitative performance cellulolytic activity of the isolated strains.

Selected References

Taylor, N. G. (2000). Cellulose biosynthesis and deposition in higher plants. *New Phytologist*, 178(2), 236-252. <https://doi.org/10.1111/j.1365-3113.2005.01285.x>

Tomme, P., Warren, R. B., & Gilbert, N. R. (1995). Cellulose Hydrolysis by Bacteria and Fungi. *Advances in Microbial Physiology*, 1-84. [https://doi.org/10.1016/0065-2911\(05\)01113-5](https://doi.org/10.1016/0065-2911(05)01113-5)

Sazci, A., Erenler, K., Karap, Radford, A. (1986). Detection of cellulolytic fungi by using Congo red as an indicator: A comparative study with the dimethylglycyl acid reagent method. *Journal of Applied Bacteriology*, 61(6), 556-562. <https://doi.org/10.1111/j.1365-2672.1986.tb01729.x>

- Parvatibai Chowgule College conducted “Alumni Meet ” on 11th February from 9am to 5:30 pm. Where the Department of Botany had put up their Eco-friendly stalls . It was assisted by the S.Y students of ‘Club Botanica’. The main idea of putting up stalls was to encourage Ecofriendly attitude and healthy lifestyle to the people.



- The department of Botany of Parvatibai Chowgule College of Arts & Science (Autonomous) Margao, Goa, organised one day state level seminar, themed: Advances In Plant Sciences on Monday 27th February 2023. Students and Faculty from various institutions attended the programme. The programme started with the welcome address and prayer song by students. The dignitaries for the day were Shri. Nadkarni; ex-Vice Principal of Parvatibai Chowgule College of Arts & Science (Autonomous), Senior Prof. Prabhat Kumar Sharma, Dr. Bina Punjabi, Dr. Sandhya Mehrotra, Dr. Naresh Kumar Manda and Dr. Manohara K.K.
 - The first session for the day was delivered by Senior Prof. Prabhat Kumar Sharma, the session was based on the role of the process of Photosynthesis And It's Role In Food And Fuel Security
 - Dr. Sandhya Mehrotra delivered a session on the topic Turbo-Charging Rubisco's CO₂ Supply: The Cyanobacterial Way.
 - Dr. Bina Punjabi delivered a special session designed for students. She spoke on the topic Seed Treatment For Maintenance Of Vigour Viability And Crop Production.
 - An online session was delivered by Dr. Naresh Kumar Manda on Designing and development of metabolically engineered Saccharomyces Cerevisia, Yarrowia lipolytica, Pichia pastoris and various algal strains as lipid cell factories for enhanced production of cost effective Bio-Diesel, Glycerol, Aqua Poultry and dairy feed.
 - Dr. Manohara K.K. engaged the last session for the evening and talked about Plant breeding and it's role in crop improvement.



- On the occasion of National Science Day, a Science Exhibition and Demonstrations of Innovations was organized by the Institution's Innovation Council, to showcase the talent of the students, their creativity and their innovational ideas in the field of Science. The event was organised on February 28, 2023 from 9 am – 1 pm in the college's quad area. students of Botany Department enthusiastically participated in this event. First year's combinedly presented one project – Demonstration of Greenhouse model. In this model they show the automatic activation of lighting effect and water sprinkler when there is deficient of light and water condition for the growth of the plant. Second year's presented two projects – One was the demonstration of Bioenzyme with the objective of promoting the use of the nature's 'wonder product' which is makes things shiny, clean and odour free.
- Demonstration of Organic Colour preparation. Students used the decoctions of various fruits and vegetables to prepare the colours. ie. Carrot- orange colour, Beetroot – pink colour, Spinach – green colour, Turmeric – yellow colour, Red Amaranthus – purple colour. A beautiful chart was also prepared to explain the procedure to prepare and importance of organic colours. Third year's combinedly presented one project - Poster Presentation on the Cellulolytic Activity of Litter Fungi Isolated from Specific Litter of Salcete, Goa. The objective of this presentation was to use cellulolytic activity of litter fungi is waste management and contribute towards the clean and healthy environment.
- The projects/presentations were guides by Ms. Amisha Pednekar, Ms. Sonali Gaonkar and Ms. Ansifa Simoes, Assistant Professors, Department of Botany. All the visitors appreciated the contributions made by the Department of Botany in the Science Exhibition and Demonstrations of Innovations event.



- Ms. Sonali Gaonkar along with Ms. Ansifa Simoes and the Botany students of SY and TY, visited the Tanshikar Spice Farm and the botanical Gardern in Salaulim- Goa on 08th April 2023. The main objective of conducting a field trip for students was to reinforce experiential and contextual learning, to encourage students to do farming in Economic Botany and Basics in Horticulture, to enhance the classroom learning by making real world connection, and to develop observational skills. The trip was a day trip from 8:00am-4:00pm. The trip enhanced the way of student’s interaction with the nature, helped to know the importance of plant in spice farm and to learn different scientific name of plants along with their ecological role.



- Ms. Sonali Gaonkar along with Ms. Amisha Pednekar and the Botany students of SY and TY, visited the ICAR, Old Goa on 14th March 2023. The main objective of the trip was to introduce students to research in plant breeding, cytogenetics, plant pathology and Horticulture, Floriculture and Landscaping. To impart skills, knowledge, future prospects of research in the field of agriculture and its applications. To get an opportunity to interact with Scientist at CCARI- ICAR, Old Goa.



#####



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



REPORT OF THE STATE LEVEL QUIZ COMPETITION FOR SCHOOL CHILDREN -71ST WILDLIFE WEEK, 2022

Title	State level Quiz Competition for School children -71st Wildlife Week, 2022
Department:	Zoology
Date and year:	7 th October 2022
Venue / online link:	Auditorium
Organizing Committee	Dept of zoology in Association with Goa Forest Department and Wildlife and Ecotourism (South) Division, Margao. Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	64
Objective	71 st Wildlife Week, 2022
Summary of the proceedings	Goa Forest Department and Wildlife and Ecotourism (South) Division, Margao in association with the Department of Zoology in organized 'Quiz competition' on wildlife on 7 th October 2022, as a part of the 71 st Wildlife Week, 2022 for School and Higher secondary students of South Goa. The Dignitaries Mr. Damodar Salelkar, Assistant Conservator of Forests, Goa Forest Department and Mr. Mangirish Dharwadkar, Nodal officer, Public Outreach Programme –Wildlife and Ecotourism (South) Division were present. Ms. Shalma Mascarenhas, Assistant Professor in the department of zoology compeered the programme. The event was coordinated by all the faculty of the department of Zoology.

Photos /Attendance



'Quiz competition' on wildlife on 7th October 2022, as a part of the 71st Wildlife Week, 2022 for School and Higher secondary students of South Goa, organised by Goa Forest Dept. in association with Dept. of Zoology of Chowgule College

Prepared and Approved by Department of Zoology



Parvatibai Chowgule College of Arts and Science (Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



REPORT OF THE E-POSTER COMPETITION-'KNOW MORE ABOUT BIRDS'	
Title	E-Poster Competition -'Know more about Birds'
Department:	Zoology
Date and year:	29 th of January, 2023
Venue / online	Online
Organizing Committee	Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
Participants	Students of 07 colleges in Goa.
Objective	To sensitise the students on the importance of bird watching, role of birds in the ecosystem
Summary of the proceedings	Department of Zoology organised E-Poster competition on Birds as a part of the Pre-festival activity in association with Goa Forest Department, Govt. of Goa. The Competition was open to all the Zoology students in Goa. Students of BSc Zoology from Goa University and 07 colleges in Goa participated in the E-Poster Competition on Birds. The theme of the E-poster competition was 'Know more about Birds'. The objective of this pre-festival activity was to create awareness among the college students on the importance of birds and know more about their habits, their role in the ecosystem and need for conservation. The winners of the competition were felicitated by the Goa Forest Department at the valedictory function of the 6 th Bird Festival at Bondla Goa

Photos /Attendance

6th Goa Bird Festival

HABITAT
Moist and dense deciduous and evergreen forests, at forest edge, in secondary forest; particularly fond of bamboo and coffee

HABITS
Highly vocal bird; always found in pair; make sharp 'CheeYEW' call;

MORPHOLOGY
Black and yellow plumage with prominent heart shape pattern on the back; Male with dark forehead, female with yellow.

ECOLOGICAL SIGNIFICANCE
Ecosystem Engineer; prevent mass infestation to many trees; aid in pollination and seed dispersal.

Heart-spotted Woodpecker
Hemicircus canente
'सुतारपक्षी'

**KNOW MORE ABOUT...
ASIAN KOEL**

COMMON NAME
Asian Koel

SCIENTIFIC NAME
Eudynamys scolopacea

LOCAL NAME
Kokila

HABITAT
Inhabit light woodlands, shrubby areas with scattered trees, gardens, plantations, and urban areas. Resident breeders in Southern Asia.

UNIQUE HABIT
The Asian koel is a brood parasite that lays its eggs in the nests of crows and other hosts, who raise its young

SEXUAL DIMORPHISM
The Male Asian koel is bluish-black; the iris is crimson, and it has grey legs and feet. The Female is brownish on the crown and has rufous streaks on the head. The body is dark brown with white and buff spots and are heavily striped.

ROLE IN THE ENVIRONMENT
Especially important in the dispersal of the sandalwood tree in India

IMAGE SOURCE
<https://www.shutterstock.com/image-vector/Asian-Koel-vector-1248857774>
<https://in.in.pondicherry.gov.in/koel/koel.html>

Prepared and Approved by Department of Zoology



Parvatibai Chowgule College of Arts and Science (Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



REPORT OF WORLD MANGROVE DAY CELEBRATION 26TH JULY 2022

Title:	WORLD MANGROVE DAY CELEBRATION
Department:	Zoology
Date and year:	26 th July 2022
Venue / online link:	Auditorium
Organising Committee	Department of Zoology and Mangrove Society of India Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	Lecture Session : 72 Competitions: 31
Objective	Create awareness about significance of mangroves and importance of its conservation.
Summary of the proceedings	<p>World mangrove day was celebrated on 26th July 2022, at Parvatibai Chowgule College to create awareness about the significance of mangroves and importance of its conservation. A series of events were conducted under the guidance of the faculty team coordinating various events: Dr. Nandini Vaz Fernandes, Associate Professor and Head of the department of Zoology, Ms. Shalma Mascarenhas, Asst. Professor in Zoology, Ms. Mithali Harlankar, Asst. Professor in Zoology, and Ms. Filomena Pereira Asst. Professor in Zoology, of Parvatibai Chowgule College.</p> <p>Inaugural Note: Dr Nandini Vaz Fernandes, Head of the department of zoology briefed the students on the importance of celebrating mangrove day, and highlighted that three competitions that were organised by the department for the students, on the occasion. The programme was compeered by Ms. Shalma Mascarenhas, Asst. Professor at the department of Zoology.</p>



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



DEPARTMENT OF ZOOLOGY
in association with
MANGROVE SOCIETY OF INDIA



celebrates
"WORLD MANGROVE DAY
on 26th July, 2022

EVENTS:

1. PHOTOGRAPHY COMPETITION

Theme - 'Amazing Fauna of the Mangrove Ecosystem'
Competition is open to all the students of Chowgule college
The original photograph to be uploaded in the google form
Date of Submission - 25th July, 2022 by 2.00 pm

2. E-POSTER COMPETITION

Theme - 'Conservation of Mangrove Ecosystem'
Competition is open to all the students of Chowgule college
Soft copy of the poster to be uploaded in the google form
Size of the poster should be A3 or A4
Date of Submission - 25th July, 2022 by 2.00 pm

Submission Link: <https://forms.gle/hnBedXhMkO8xE87f7>

3. LECTURE ON 'LIFE SANS MANGROVES'

Date and Time: 26th July 2022 at 9.30-10.30 am
Venue : Lower Auditorium

ORGANISING COMMITTEE:

Dr. Nandini V. Fernandes
Ms. Mithali Halarnkar
Ms. Filomena Pereira
Ms. Shalma Mascarenhas

Competitions held (21st – 25th July 2022):

Three competitions were held for the students on themes such as 'Conservation of mangrove ecosystem'; 'Importance of mangroves' and 'Mangrove fauna'.

The winners of the competition are as follows:

i. Painting Competition:

For: School students

Theme: "Importance of Mangrove ecosystem".

Winner: Ms. Shalvi Gaonkar (Vidhya Vikas School)



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



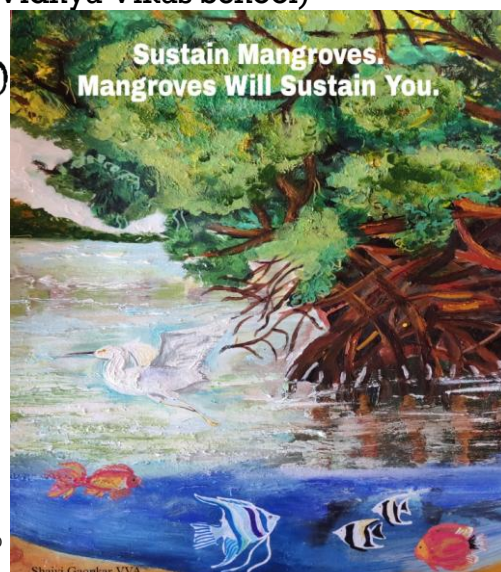
DEPARTMENT OF ZOOLOGY
in association with
MANGROVE SOCIETY OF INDIA
Celebrated
"WORLD MANGROVE DAY"
ON 26th July 2022



1) PAINTING COMPETITION FOR SCHOOL STUDENTS

THEME: "IMPORTANCE OF MANGROVE ECOSYSTEM"

FIRST PLACE
Shalvi Jeetendra Gaonkar (Std X)
SCHOOL: Vidya Vikas Academy



ii. E-Poster competition:

For: Zoology students

Theme: "Conservation of mangrove ecosystem"

First Place: Ms. Aransha Michelle Rodrigues (TYBSc)

Second Place: Mr. Aaron Vales (SYBSc)

Third Place: Jeanette Soares (SYBSc)



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



DEPARTMENT OF ZOOLOGY
in association with
MANGROVE SOCIETY OF INDIA
Celebrated
"WORLD MANGROVE DAY"
ON 26th July 2022

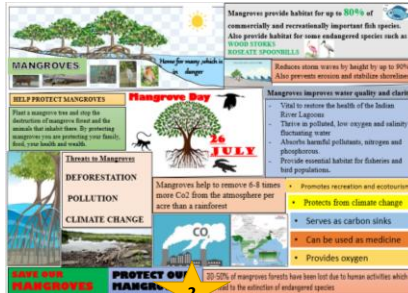


2) E-POSTER COMPETITION FOR ZOOLOGY STUDENTS

THEME: "CONSERVATION OF MANGROVE ECOSYSTEM"



1 ARANSHA MICHELLE RODRIGUES
T.Y.B.Sc



2 AARON VALES
S.Y.B.Sc



3 JEANETTE SOARES
S.Y.B.Sc



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



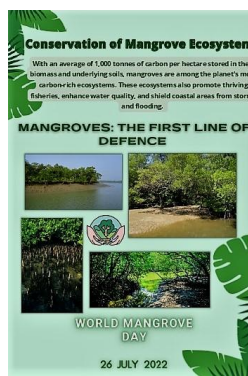
DEPARTMENT OF ZOOLOGY
in association with
MANGROVE SOCIETY OF INDIA
Celebrated
"WORLD MANGROVE DAY"
ON 26th July 2022



LINOSHA MARIA DIAS



SHREYA PRASHANT BORKAR



EARLENE ANTAO



BRITNEY WINNIFRED FERNANDES

iii. Photography Competition:

For: Zoology students

Theme: "Amazing Mangrove Fauna"

Plenary Lecture:

Dr Nandini Vaz Fernandes, Head of the department of zoology and member of Mangrove Society of India, delivered a plenary session on "Life Sans mangroves...Unimaginable" for the students of department of Zoology. The programme was enthusiastically attended by 72 participants. Dr. Fernandes discussed various aspects of importance of mangroves, uniqueness of mangrove ecosystem, their role in protection and conservation of coastal zones, protection of the environment etc. She also discussed the possible ecological, social and economic impact of destruction of mangroves.

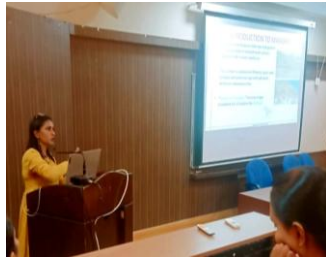


Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



3) Plenary Lecture : "LIFE SANS MANGROVES – UNIMAGINABLE"
By Dr. Nandini Vaz Fernandes



Prize distribution:

Ms. Mithali Harlankar, Asst. Professor at the department of Zoology announced the prizes for the competitions held by the department for school students as well as students of department of zoology.

The programme ended with a vote of thanks, proposed by Ms. Filomena Pereira, Asst. Professor at the department of Zoology.

Prepared and Approved by Department of Zoology



Parvatibai Chowgule College of Arts and Science (Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



REPORT	
Title	Bird Walk For School Children
Department:	Zoology
Date and year:	27 th to 29 th of January, 2023
Venue / online link:	Curtorim
Resource Person	Prof.Dr.Nandini Vaz Fernandes, Ms. Filomena Pereira and Mr. Stephen Dias
Organizing Committee	Department of Zoology in Association With Goa Forest Department: Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	198
Objective	To sensitise the students on the importance of bird watching, role of birds in the ecosystem.
Summary of the proceedings	<p>Bird Walk For School Children In Association With Goa Forest Department:</p> <p>As a part of the Pre Festival activities of the 6th Edition of 'Goa Bird Festival' held from 27th to 29th of January, 2023, by the Goa Forest Department, the Birder's Club of the Department of Zoology of Parvatibai Chowgule College of Arts and Science, Margao Goa organised Bird walks for School Children in Salcette Goa.</p> <p>School and Higher Secondary students from Manovikas English Medium school and Higher secondary, Mutipurpose Higher Secondary school Borda, Kings School, San Jose de Areal and Vidya-Vikas school Comba, participated enthusiastically in the bird walks. The Bird walk started with an introductory session at Maina-Curtorim Wetland complex (<i>Handi Khuris area</i>), Salcette Goa. Prof.Dr.Nandini Vaz Fernandes, Head of the Department of Zoology, of Parvatibai Chowgule College welcomed the students and informed them about the rationale of the Pre-festival activities and the Bird festival organised annually by the</p>

Goa Forest Department. She also highlighted that various activities are conducted annually to sensitise young minds towards wildlife conservation and appreciation of birds in nature. She explained the importance of bird watching, role of birds in the ecosystem and encouraged the students to continue bird watching in their backyard.



The trails were lead by Prof. Dr. Nandini Vaz Fernandes, Ms. Filomena Pereira and Mr. Stephen Dias from 11th to 14th of January, 2023 from 7:30 am to 9:30 am. The Bird walk was enthusiastically attended by 198 participants which included the students from schools and higher secondary schools, forest officials, members of Birders Club of Chowgule College and birders from the general community from Salcette. The enthusiasm and interest of the school students was noteworthy as they watched the birds through the scopes and binoculars. Site photography was also conducted. 70 species of birds were spotted during the 04 days of birding.

BIRD-WALKS FOR SCHOOL STUDENTS CONDUCTED BY DEPARTMENT OF ZOOLOGY



DAY 1 – 11TH JANUARY 2023- BIRD WALK ORGANISED FOR MANOVIKAS ENGLISH MEDIUM SCHOOL FATORDA GOA



DAY 2 – 12TH JANUARY 2023- BIRD WALK ORGANISED FOR MULTIPURPOSE HIGHER SECONDARY SCHOOL




DAY 3 – 13TH JANUARY 2023- BIRD WALK ORGANISED FOR THE KINGS SCHOOL SAO JOSE DE AREAL MARGAO GOA



DAY 4 – 14TH JANUARY 2023- BIRD WALK ORGANISED FOR VIDYA VIKAS ACADEMY, COMBA MARGAO

Prepared and Approved by Department of Zoology



REPORT OF THE BIRD WALK	
Title	Bird Walks - Chowgule Birder's Club Activity
Department:	Zoology
Date and year:	8 th October 2022-
Venue / online link:	wetlands of Maina-Curtorim
Organizing Committee	Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira (CBC Coordinator)
No. of Participants	8 th October 2022- wetlands of Maina-Curtorim - 20
Objective	To document the birds at wetlands of Maina-Curtorim .
Summary of the proceedings	Chowgule Birder's Club Activity: CBC of the department of Zoology organized Bird walk on 8 th October 2022 at the wetlands of Maina-Curtorim. The objective of the activity was to observe and identify birds in their natural habitat. 20 students along with faculty Ms. Filomena Pereira, Ms. Mithali Halarnkar and Ms. Shalma Mascarenhas, Asst. Professors in the department of Zoology participated in the bird walk. 26 species of birds were sighted during the bird walk.
Photos /Attendance	 <p>Bird walk at wetlands of Maina-Curtorim, organised by Chowgule Birder's Club</p>
<i>Prepared and Approved by Department of Zoology</i>	



Parvatibai Chowgule College of Arts and Science (Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



REPORT OF THE "WORLD SPARROW DAY" ACTIVITIES

Title	"WORLD SPARROW DAY" ACTIVITIES
Department:	Zoology
Date and year:	15 th to 20 th March, 2023
Venue / online link:	A 202
Activities	The Department conducted the following events to commemorate 'Sparrow Day'. 1) Photography Competition – Theme "Sparrows in action" 2) Bookmark Making Competition On "House Sparrows" 3) Making a Documentary On "Conservation Of House Sparrows" 4) Guest lecture: "Where have the Sparrows Gone".
Resource Person	Plenary speaker: Ms. Shalma Mascarenhas
Organizing Committee	Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	67
Objective	To Sensitise students on the importance of Sparrows in the ecosystem.
Summary of the proceedings	<p>Chowgule's Birders Club (CBC), of the Department of Zoology of Parvatibai Chowgule College of Arts and Science (Autonomous), Margao- Goa, celebrated the "World Sparrow Day" in the College from 15th to 20th March, 2023. To commemorate this day 04 activities were organised by the Department of Zoology, for the students of the department of Zoology</p> <p>The programme began with an inaugural session at the Zoology Lab-A202, Parvatibai Chowgule College of Arts and Science (Autonomous), Margao-Goa on 20th March, 2023. The function was attended by 65 participants including 61 students from the Zoology department of the college, faculty members of Dept. of Zoology and nonteaching staff members. Ms.Elita Sequeira, F.Y. Zoology student was the compere for the event and welcomed the audience. She informed the audience aboutthe idea of earmarking a day by Nature Forever Society (NFS) of India for sparrows and importance of "WORLD SPARROW DAY". Prof. Dr. Nandini Vaz Fernandes, Head of Zoology</p>

Department addressed the gathering. She highlighted the goal of the World Sparrow Day and requested the students to inspire people around to take little measures to protect the Sparrows and other common birds. The inaugural session ended with a vote of thanks proposed by Ms. Filomena Pereira, the faculty Co-ordinator of the Chowgule's Birders Club (CBC).



The faculty members of Dept of Zoology, Parvatibai chowgule College of Arts and Science (Autonomous), Margao- Goa

Prof. Dr. Nandini V. Fernandes, Head of Zoology Department addressing the gathering.

1) PHOTOGRAPHY COMPETITION ON “SPARROWS IN ACTION”:

As an activity on the occasion of “World Sparrow Day” a photography competition was organized for the students of the Department of Zoology. Objective of the competition was to raise awareness of the plight of sparrows and was an effort to expose the students to birds. Seven students participated in the same. The students were allowed to click pictures of the House sparrows from 15th to 19th March, 2023. The theme for the same was ‘Sparrows in Action’. The winners were Ms. Britney Fernandes (SYBSc), Ms. Linoshka Dias(SYBSc) and Ms. Sakshi Naik (SYBSc).



Photography competition: Theme -‘Sparrows in Action’

2) BOOKMARK MAKING COMPETITION ON “HOUSE SPARROWS”

A bookmark making competition was organised for the students of Department of Zoology. Objective of the competition was to raise awareness of the plight of sparrows and was an effort to expose the students to birds and their importance. 23 students participated in the bookmark making competition. The theme for the competition was “House Sparrows”. The bookmarks prepared by the students with poems, paintings and art regarding ‘House sparrows’ were exhibited for the other students of the College. The competition was won by Ms. Lyza D’Costa(TYBSc), Ms. Mahaboobunnisa(FYBSc) and Ms. Achsah Grace Chithran(FYBSc).



The bookmarks for the “Bookmark making competition” organized by the CBC, Department of Zoology

3) MAKING DOCUMENTARY ON “CONSERVATION OF HOUSE SPARROWS”:

The students of F.Y.B.Sc. Zoology made a documentary on “Conservation of House Sparrows” highlighting the story about the decline in population of House Sparrows recently. The documentary was enacted and directed by the FYBSc students, Om Kurpaskar, Ms. Ann Lilian Da Costa Menezes, Ms. Racheal Shweta Fernandes, Anush Umesh Naik and Aaron Dsouza. The documentary featured observation of decline in the sparrow population in the present day time, and the fond memories which were cherished of these little birds and this was enacted by the students. It also emphasized on the efforts that one could make like setting of bird baths and bird feeders to help conserve the sparrows and other birds.

4) SEMINAR:

Guest lecture: “Where Have the Sparrows Gone?”:

The resource person for the session on “Where have the Sparrows gone?” was Ms. Shalma Mascarenhas, Asst. Professor, Dept of Zoology. The talk enlightened the audience on “House Sparrow”. The session began with sharing of fond memories with the sparrows followed by a brief on the initiative of organizing the “World Sparrow Day”. The talk also highlighted various aspects on Sparrows, possible reasons for decline and how one could make little efforts to help the sparrows and other common birds.



Ms. Shalma Mascarenhas, Asst Prof, Dept of Zoology delivering a talk on “Where have the Sparrows gone?”



Prof. Dr. Nandini V. Fernandes presenting a momento to the resource person



Students attending the talk on “Where have the sparrows gone?”
Prepared and Approved by Department of Zoology



REPORT OF THE COMPETITION: 'ART FROM WASTE'

Title	Competition: 'Art from Waste':
Department:	Zoology
Date and year:	4 th November 2022
Venue / online link:	zoology lab A-202
Organizing Committee	Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	23
Objective	With a focus on waste minimisation, the students were encouraged to create art from waste.
Summary of the proceedings	The Department of Zoology organised 'Art from Waste' activity for the SYBSc Zoology students. With a focus on waste minimisation, the students were encouraged to create art from waste. The students created beautiful creative art from the waste which was exhibited at the zoology lab A-202 on 4 th November 2022. This was an environment protection initiative coordinated by Prof.Dr.Nandini Vaz Fernandes, Ms. Filomena Pereira, Ms. Mithali Halarnkar and Ms. Shalma Mascarenhas, faculty members of the department of zoology.

Photos /Attendance



Prepared and Approved by Department of Zoology



Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



**REPORT OF THE COMMUNITY OUTREACH:
DONATION OF CLOTHES AND STATIONARY TO THE ORPHANS AT
'MATRUCHHAYA BALIKA KALYAN ASHRAM',**

Title	Community Outreach: Donation of Clothes and Stationary to the orphans at ' <i>Matruchhaya Balika Kalyan Ashram</i> ',
Department:	Zoology
Date and year:	7 th November 2022
Venue / online link:	Lab A 202
Organizing Committee	Prof. Dr. Nandini Vaz Fernandes Ms. Mithali Harlankar Ms. Shalma Mascarenhas Ms. Filomena Pereira
No. of Participants	23 SYBSc Zoology students
Objective	Practice 3Rs: With a focus on waste minimisation, the students were encouraged to collect items from their homes and neighbourhood. Serve the community.
Summary of the proceedings	<p>The department of zoology organised 'Collection Drive of reusable items' for the SYBSc Zoology students from 04th to 7th November 2022. With a focus on waste minimisation, the students were encouraged to collect items from their homes and neighbourhood. The students collected clothes, books, stationary and kitchen items that can be reused by others. This was another environment protection initiative of the 3Rs, coordinated by Prof.Dr.Nandini Vaz Fernandes, Ms. Filomena Pereira, Ms. Mithali Halarnkar and Ms. Shalma Mascarenhas, faculty members of the department of zoology</p> <p>The students of SYBSc Zoology packaged 13 boxes of Girls' clothing, Books and Stationary to donate to the orphans at '<i>Matruchhaya Balika Kalyan Ashram</i>', in Gogol Margao, Goa. This was an initiative coordinated by Prof.Dr.Nandini Vaz Fernandes, Ms. Filomena Pereira, Ms. Mithali Halarnkar and Ms. Shalma Mascarenhas, faculty members of the department of zoology as a part of social responsibility.</p>



'Collection Drive of reusable items' conducted by SYBSc Zoology students



Donation of items to the orphans at 'Matruchhaya Balika Kalyan Ashram' by the Department of Zoology

Prepared and Approved by Department of Zoology



Parvatibai Chowgule College of Arts and Science Autonomous

Accredited by NAAC with Grade A' (CGPA Score 3.41 on a 4 Point Scale 3rd cycle)
Best affiliated College-Goa University Silver Jubilee Year Award

REPORT

Title:	Community Outreach Program- Sernabatim Beach Cleanup	
Date and year:	13 th January, 2023	Timing: From: 03.00 pm To: 05:00 pm
Venue:	Sernabatim Beach	
Resource person/s:	Prof. Nandkumar Sawant & Mr. Deepak Kumbar	
Organising Committee	Department of Geography & Research Centre	
No. of Participants	25 Students	
Objective:	<ul style="list-style-type: none">To sensitize students about issue of garbage on beaches of Goa.	
Summary of the proceedings	<p>Department of Geography and Research Centre under the aegis, “geographers for sustainability” undertook ‘Beach Cleanup’ at Sernabatim beach, Salcete- Goa on 13th January 2023.</p> <p>25 students and 2 faculty members participated in the cleanup program. 40.50 kgs of garbage was collected from the beach (High tide and Low tide line) Broadly, the garbage consisted of 2 broad categories:</p> <ol style="list-style-type: none">1) Bigger Garbage Items consisting of liquor bottles, ropes, slippers, cans, plastic plates etc.2) Smaller Garbage items consisting of nylon strings, cigratte butts, guthka packets, chips packets, plastic spoons, straws, bottle caps etc. <p>The collected garbage was meticulously disposed in the garbage bins installed by the Panchayat.</p>	

Photographs



Prof. Nandkumar Sawant addressing the students



Post beach cleanup

Report prepared by:

Approved by Prof. Nandkumar N. Sawant

Dated:16/01/2023