



Zoology

NEWSLETTER

*Department under
DBT Star College Scheme*

**Durgapur Government
College**

ZOOLOGY DEPARTMENT BAGGED PRIZES



LIVE PAINTING COMPETITION

10TH NOVEMBER , 2022



Workshop on Mushroom Cultivation



Mushroom cultivation workshop was one of its kind as it made students think that they can start an earning with a small startup business in such an easy way. This feeling that they can start earning gave them a sense of independence & boosted their confidence.





PARENTS' TEACHER MEETING

On 19th October, 2022
At Zoology Department



EXCURSION TO HILLS OF DARJEELING

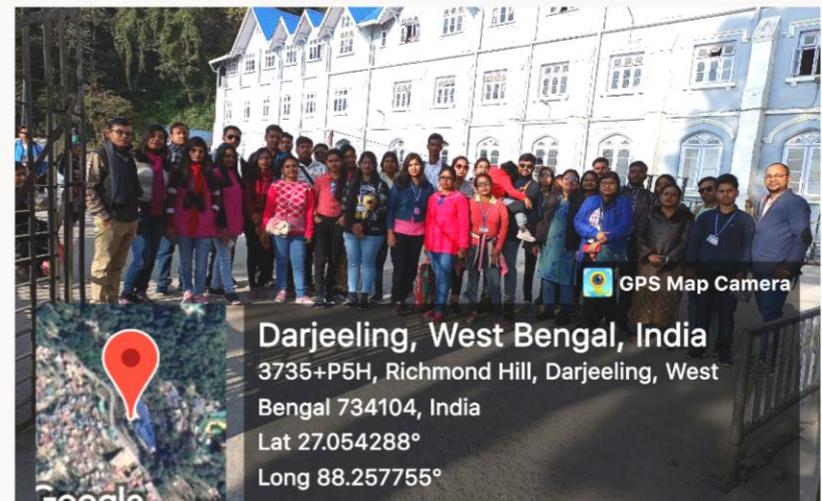
FROM 16TH TO 21ST NOVEMBER,
2022

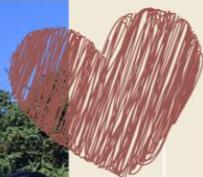


WITH
DEPARTMENT
OF
BOTANY



TOUR GALLERY





Our Memories

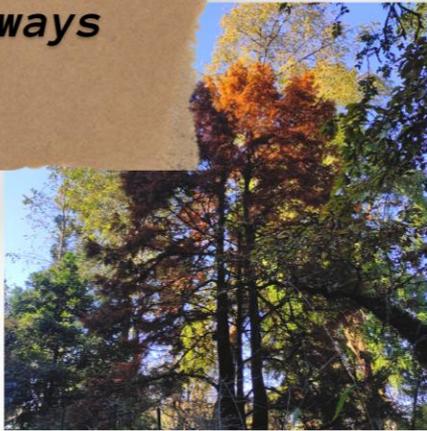


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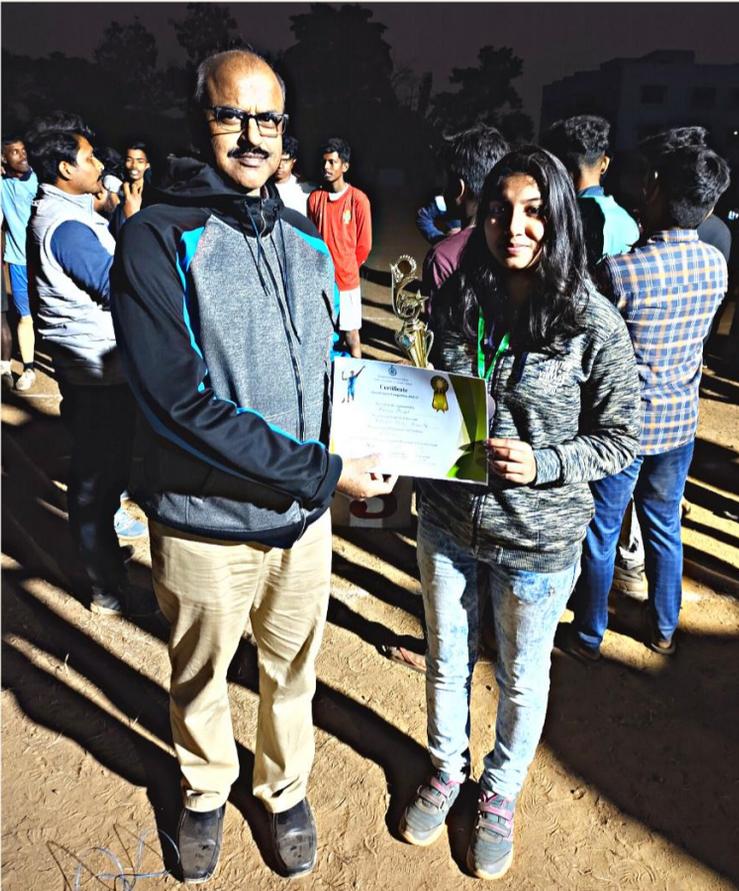
Natural beauty is always truthful.....



MEMORIES

FOREVER





BAGGED 1ST RUNNER UP
POSITION IN BADMINTON IN
ANNUAL SPORTS DAY, 2022
HELD ON 12TH DECEMBER, 2022

**BE A SPORTY
LIVE HEALTHY**

Learning Organic farming & Vermicomposting

"Go Organic" is the mantra of healthy living. We learnt to make organic manure by Vermicomposting & grow exotic fruits & vegetables organically.

Held on 22nd December, 2022



Field work is an integral part of Zoology Academic Curriculum & students are introduced to field activities in the very first semester in core course Ecology.



*Held on 10th
January, 2023*

***Field work at
Ambuja wetland***



*Students learn sampling, quadrat analysis & testing
water samples collected from adjoining water bodies .*



The beautiful campus of DGC is an abode of rich biodiversity.

Taking account of bird biodiversity only, our campus is a host of 130 species of bird. It was an overwhelming experience to learn the scientific way to count and identify birds which recorded 27 species on this bird walk day.

BIRD WALK

*In collaboration with WINGS
Held on 17th January, 2023*





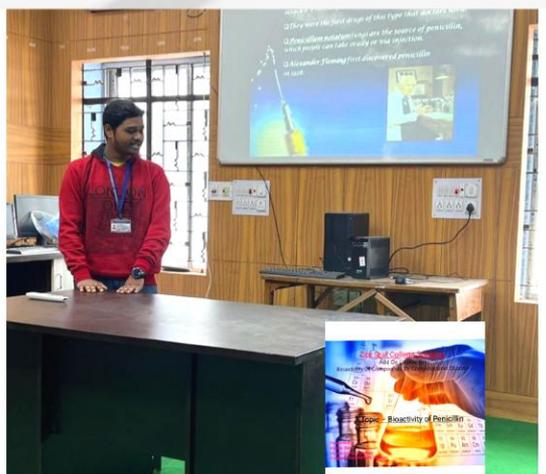
Workshop on Chemical Waste Disposal

*We learnt to handle chemical
waste & became aware about
health hazards of chemicals
when using them in laboratory.*

Held on 17th January, 2023



**LEARNING CHEM
DRAW SOFTWARE &
FINDING BIOACTIVITY
OF ORGANIC
COMPOUNDS.
STUDENTS
PRESENTING THEIR
WORK IN SEMINAR.**



Held on 19th January, 2023



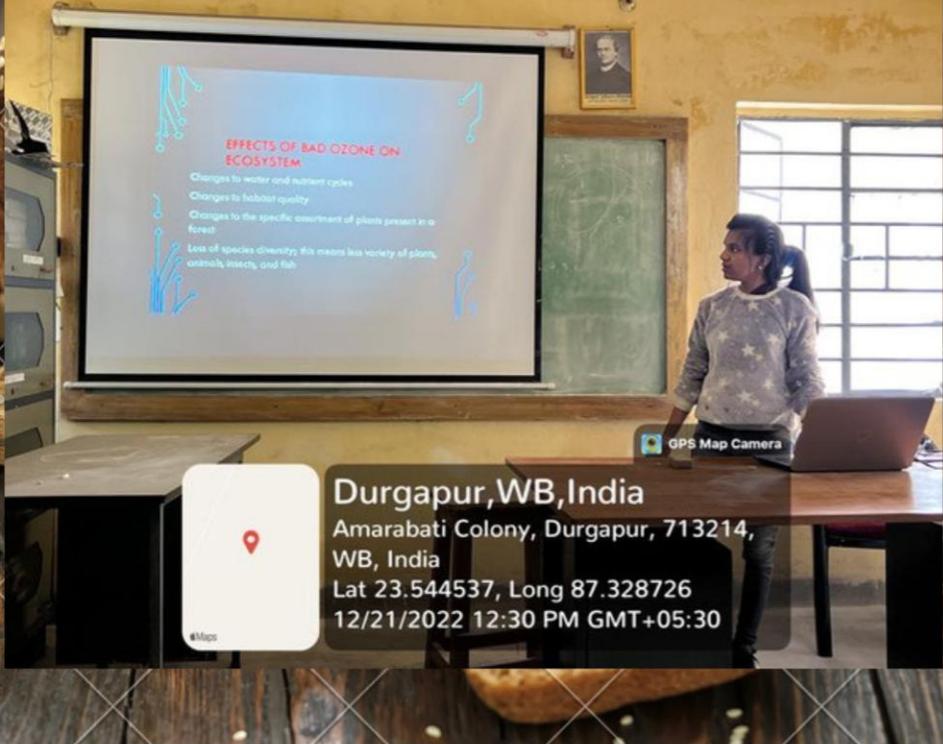
INDUSTRIAL TRAINING ON PEARL CULTURE BY SMILE SOCIETY



HELD ON 4TH & 5TH FEBRUARY, 2023 AT MADHYAMGRAM, KOLKATA

ZOOLOGY DEPARTMENT'S HERITAGE - MUSEUM





More feathers in the crown of our faculty



Research Kinetics
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Application of Green Synthesized Nanoparticles against malaria vector *Anopheles stephensi*

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Abstract

This chapter summarizes scientifically the role of nano-materials as means of mosquito control against discrete life stages of *Anopheles stephensi*. Malaria is transmitted across the temperate country, mainly in urban areas by the vector *An. stephensi*. But, due to the over exploitation of the synthetic insecticides, mosquito populations get resistance

Ph.D degrees awarded & recent publications of faculty members.



OPEN ACCESS

Brief Report

Emerging Syndemic: Black Fungus—A Post-COVID-19 Mucormycosis

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Ann Nati Acad Med Sci (India)

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Novel coronavirus has created a havoc in India; about 30 million cases have been reported and 0.4 million deaths are recorded till now due to coronavirus disease 2019 (COVID-19). But nowadays, some patients of COVID-19 in India are battling a very rare but fatal disease, that is, mucormycosis or "black

these, the most common rhinocerebral form usually occurs in immunocompromised individuals. It exhibited a "pattern paranasal infection" with a porch into the oral cavity often. It is a quickly emerging angioinvasive infection, with rhino-orbital-cerebral and pulmonary manifestations. According to the





Stop Plastic Pollution Be Part Of Solution

- *By Anamika Bhattacharjee*

Sem IV , Zoology Honours

We all know that plastic is a pollutant. It gets into the food chain affect the organism but we have many innovation in our mind to reuse and recycle plastic to save us and our planet itself. Innovation like plastic into fuel for diesels engine as waste plastic are converted into fuel by pyrolysis process in pyrolysis plastic plant. Waste plastic can be utilize to make home as for inspiration. A waste collector in Karnataka collaboration has done. Plastic roads are made with waste plastic bottle and recycle asphalt. Eco bricks are new kind of bricks made up of plastic and are durable then the earlier bricks. Plastic bottles are converted into close like jeans words and overcoat etc . Our honorable Prime Minister wore sleeveless sky blue jacket to the Parliament made up of recycle plastic. It reflects India most forward to reuse plastic.

Artificial Intelligence In Biology

- By Anamika Bhattacharjee
Sem IV, Zoology Honours

In today's world artificial intelligence have its wide range of applications in various field including biology. As AI is a growing and very prevalence of search. AI, machine learning and deep learning has an immense growth by recent years. It helps in image analysis as researchs face many issues including the heterogeneity of samples achieving consistency in analysis, which is challenging due to human error, requiring Complex tasks to be performed and large amounts of data making analysis term consuming. AI is successfully applied in analysing images in infectious disease diagnosis. AI is applicable in predicting protein structure such as Alpha fold. It does this by employing a "neural network" to combine knowledge of the physical and biological properties of protein structure using multi sequence alignment in the design of deep algorithm.

AI is also used in drug Discoveries, as earlier drug Discovery has involved complicated and time consuming screen to identify potential compound with a library that give the desired effect. Now AI predict properties of a potential compound accurately. AI has helped develop a novel anti cancer drug, and A2 receptor antagonist designed to help T cells attack cancer. AI system for the design of magic shotgun drugs are now in its way and research are going on. In this research AI enable computer to create new chemical structure and predict their multitarget at a low cost and in a time efficient manner. AI system for the next generation of automatic design of multi target drugs.

Ecological Footprinting

-By Angatra Mandal

Sem IV, Zoology Honours

Before knowing anything else a question clicks in our mind that what is ecological footprinting. answering this we can say that we humans need food, shelter and heating for living and survival. Earth's ecological resources provides us with these. But if we make a question that how many resources do we consume? It may be answered by help of the term Ecological Footprint. If we take an example of a bank statement tracks income against expenditures, in the same way Ecological Footprint accounting calculates a population's demand for natural ecosystems' supply of resources. It can be calculated for a single individual, city, region, country and the entire planet. During the last decade, the Ecological Footprint has helped reopen the sustainability debate through the communication of scale of overuse of Earth's natural resources and ecosystem services by humanity. However, Footprints questioned the social and economic dimensions of sustainability.

Last but not least, we can conclude that there is a danger, that too narrow a focus on ecological footprinting, will at last lead to an emphasis on quantity of land use over quality, encouraging overuse and degradation of land, and to the neglect of other important dimensions of sustainability.

Wellsung Discoveries By Unsung Scientists :

A Tribute

- By Utsa Ghosh

Sem IV, Zoology Honours

The advancement of science has been by leaps and bounds since the Paleolithic age and has played a huge role in the advancement of mankind. On this steady journey of advancements of both mankind and science, many genius minds have faded away from the memories of humans but their inventions remained as their identity to the worlds. When we indulge in the act of retrospection, many such names pop up in our minds who either have been criticized, disrespected and indirectly murdered because of their astonishing invention or discoveries and some were just reluctant about patents. Here are some of those scientist who were deprived in some way or the other of their deserved success, respect and recognition.

Subhas Mukherjee was an Indian Scientist who used in-vitro fertilization to become the architect of India's first and the world's second test tube baby, Durga (October 3, 1978). For this he faced social ostracization and insult from the then West Bengal government. A government panel was formed for examination which actually ruled against him and insulted him. Unable to bear, he committed suicide in Calcutta on June 19, 1981.

The other big example, Jagadish Chandra Bose known as the Father of Radio Science was forgotten by the west due to his aversion to patents. He was among the pioneers of research in radio technology and demonstrated for the first time, the wireless radio communication using radio waves almost 2 years before Italian physicist Guglielmo Marconi who was credited for developing the first proper system of radio communication in 1897.

Dr Yellapragada Subbarow has been given many names which include 'Man of Miracle Drugs' and 'Father of Chemotherapy'. After the death of his two brothers, he discovered folic acid as a treatment of tropical sprue, diethylcarbamazine, as the only effective drug against filariasis and methotrexate used in chemotherapy. Moreover he discovered the function of ATP.

As said by Dr Yellapragada Subbarow, "The victories of science are rarely won single handed. No man should get the entire credit". In 1930, C V Raman won the Nobel Prize of Physics due to the discovery of Raman Effect but its co-founder K S Krishnan was completely deprived of any recognition he deserved. Similarly, Narinder Singh Kapany known as the 'Father of Fibre Optics' was deprived of Nobel and there are countless others.

If we dig deep enough we will find more of these precious minds whose name were lost in this great journey of science. Time will pass, this journey of science will move forward and memories of mankind will weaken more. These scientist did not invent for recognition but to quench their thirst for knowledge. As the famous phrase goes "Man lives by his deeds not by years"

Journey from online to blended to offline mode

- *By Kushal Mistry*
Sem VI, Zoology Honours

College life is known as one of the most memorable years of one's life. It is entirely different from school life but for us, it was the darkest time in the beginning, because, at that time, corona was ruling all over the world.

We took admission in the year 2020 to Durgapur Government College but for us, it is totally a different story. We didn't go to college for 1st and 2nd semester because it was in online mode. We couldn't get the flavour of college life because there was absolutely no direct interaction between teachers and students except online teaching and learning. 3rd semester was a little better with exams happening in offline mode and then we got hope because then college was preparing to get into normalcy.

The transition between online to offline was a boon for us because then we understood the importance of interaction between teachers and students. After meeting with our teachers, we felt great and thankful to get their blessings and receive their knowledge directly. At that time, the real taste and the beauty of college life started. The first day, when we stepped into college premises was in the 4th semester, and then the ball started rolling very fast. Each and every activity, both academic and extracurricular became full of life and energy. From this time onwards, we got the full essence of college life. We participated in anything and everything and bagged prizes.

The excitement is still going on and we wish that there are a lot more prizes for Zoology department and we also wish that we are oriented for pursuing higher studies after passing out from this department in flying colours and with our beloved teachers' blessings.

2020 BATCH

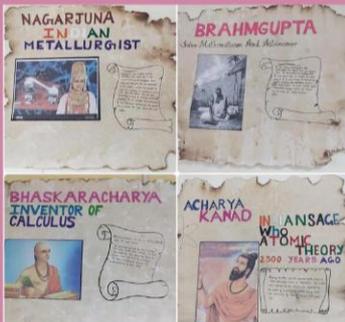
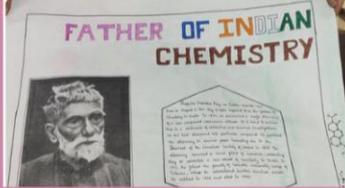




Celebration of National Science Day
Theme : Global science for Global wellbeing.



Decorations of the hall focussed on Ancient Indian discoveries & Modern Science in India



Held on 25th February, 2023 at Nazrul Prekhhagriho , Durgapur Government College



**INTER COLLEGE POSTER
 COMPETITION HOSTED BY
 DEPT. OF ZOOLOGY**
**SEM IV STUDENTS OF
 ZOOLOGY DEPT. OF
 DGC BAGGED THE 2ND
 & 3RD PRIZE FOR
 THEIR INNOVATIVE
 POSTERS**



A piece of Art by Zoologists

Theme :- Child's heart is
as pure as a flower & each
petal of the flower depicted
various developmental
stages of foetus.

Zoology Department won
1st prize



Held on 28th February,
2023

Exploring interdisciplinary avenues in Life Sciences

Zoologists as Geologist

Excavating fossils at

Mejia on 2nd March, 2023



*Students' Learning
'C' Programming*

