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**BHARATA MATA
COLLEGE
THRIKKAKARA**

Affiliated to MG University, Re-accredited by NAAC with 'A+' Grade, ISO 9001-2015 Certified



ANNUAL REPORT

2022-2023

DEPARTMENT OF ZOOLOGY

Department at a Glance

Zoology as an Under Graduate department started in the year 1970 with a sanctioned strength of 36 students and Dr. A. Madhavan as the Head of the Department. From the time of inception of Bharata Mata College in 1965 with five Pre-degree batches, Prof. P.P.John was a Faculty member in Zoology. The department has always been keen on non-scholastic development of students. Championship in Arts Festival many a times is a testimony to this. The department has an active Zoology Association and a nature club Friends Of Fauna (FOF), an extension wing of Zoology association. Department of Zoology has been publishing a manuscript magazine christened 'Nautilus' since 1989 to nurture the soft skills of our students. The Zoology department has bagged the "Best Zoology Association Award" and the "Best Manuscript Magazine Award" instituted by The Zoological Society of Kerala, many a times. The well set 'Zoology Museum' has a good collection of bottled and stuffed specimens.

Courses offered

Programme	Name / specialisation
UG	B.Sc Zoology
Certificate/Add-on	Medical Laboratory Techniques

Department Highlights

Ph.D Awarded - 3

Paper Publications - 4

Books Authored – 2 Chapters

MoUs - 2

Workshops/Seminars/

Invited Talks – 2

Faculty Profile

Dr. Simi Joseph P

Assistant Professor

Qualification: M.Sc, Ph.D, CSIR-JRF & NET

Joining Year: 2013



Dr. Sherin Antony

Assistant Professor

Qualification: M.Sc, Ph.D, CSIR-JRF & NET

Joining Year: 2019



Dr. Sonja John

Guest Lecturer

Qualification: M.Sc, CSIR-JRF & NET

Joining Year: 2022



Ms. Chitra Rajagopal

Guest Lecturer

Qualification: M.Sc, CSIR-JRF & NET

Joining Year: 2022



Student Profile

Class	Batch (eg.2021-24)	Male	Female
UG – 1st Year	35 (2022-25)	9	26
UG – 2nd Year	32(2021-24)	9	23
UG – 3rd Year	33 (2020-23)	12	21

Student Representatives

Class	Male (Name)	Female (Name)
UG – 1st Year	Aravind Jayapasad	Aayisha Mehanas
UG – 2nd Year	Bibin Joy	Mary Candriya
UG – 3rd Year	Aswin G T	Gayathri Anilkumar

Result analysis of Students 2020-23 Batch

No of Students registered/appeared

UG					
Semester					
I	II	III	IV	V	VI
34	31	33	33	32	33

No of Students Passed

UG						
Semester						
	I	II	III	IV	V	VI
Count	31	29	31	30	29	32
%	91.18	93.55	93.93	90.90	90.63	96.96

OVERALL RESULT (2019-22 BATCH)

No: of Students Attended: 31

No: of Students Failed : 19

OVERALL PASS PERCENTAGE : 61.29 % in June 2022. On announcement of Supplementary results in May 2023, it was enhanced to 96.77 % (30/31)

M.G. University B.Sc Rank Holders 2020-23 Batch
3rd Rank- Aysha M.M.
5th Rank- Kalyani J. Nair

Mahatma Gandhi University Rank Holders



Aysha M.M
CCPA 9.49 (A+)



Kalyani J Nair
CCPA 9.44 (A+)

Congratulations

Result analysis of Students of other batches (Result Declared in 2022-23 AY)

Program	Batch	Semester	No of Students registered	No of Students Passed	Percentage
B.Sc Zoology	2021-24 BATCH	I	36	27	75
B.Sc Zoology	2021-24 BATCH	II	34	21	61.5

Department Contribution to Examinations

Name of the Faculty	Role Taken
Dr. Simi Joseph P	<p>Chief Examiner</p> <p>1. B.Sc. Zoology CBCS - Semester VI April 2022-Centralised Valuation Camp - Dates- 31/05/2022 -03/06/2022.</p> <p>2. B.Sc. CBCS - Semester -IV Complementary Zoology September 2022 - Centralised Valuation Camp. Dates - 30/11/22 - 02/12/22.</p> <p>3. B.Sc. CBCS - Semester –II Complementary Zoology October 2022 - Centralised Valuation Camp. Dates – 06/01/2023.</p> <p>4 B.Sc. Zoology CBCS - Semester VI April 2023-Centralised Valuation Camp - Dates- 08/05/2022 -10/05/2022.</p> <p>5. B.Sc. Zoology CBCS - Semester VI April 2023-Centralised Valuation Camp - Dates- 11/05/2022 -12/05/2022.</p> <p>6. B.Sc CBCS –Semester V Core Zoology December 2022- Centralised Valuation Camp. Dates - Dates- 2/2/23, 3/2/23, 6/2/23</p> <p>7. B.Sc. CBCS - Semester –III Complementary Zoology January 2023 - Centralised Valuation Camp. Dates – 05/05/2023</p> <p>8. B.Sc. CBCS - Semester –I Complementary Zoology February 2023 - Centralised Valuation Camp. Dates – 05/06/2023</p>

	<p>Additional Examiner</p> <p>1.B.Sc. CBCS - Semester –III Complementary Zoology May 2022- Centralised Valuation Camp Dates- 29/06/2022 – 04/07/2022.</p> <p>2.B.Sc. CBCS - Semester –I Complementary Zoology July 2022 - Centralised Valuation Camp. Dates – 24/08/2022 – 26/08/2022</p> <p>Practical Examiner</p> <p>1.Semester V & VI Supplementary Practical (2014-17 Batch) -at The Cochin College Kochi on 08/08/2022.</p> <p>2.Semester I & II Combined Core Practical exam at The Cochin College Kochi on 12 th and 13th January 2023</p>
Dr. Sherin Antony	<p>Additional Examiner</p> <p>1. B.Sc. CBCS - Semester -6 Core Zoology- Centralised Valuation Camp, April, 2022 Date-23/5/22 to 28/5/22, 30/5/22, 31/5/22.</p> <p>2. B.Sc. CBCS - Semester -3 Complementary Zoology - Centralised Valuation Camp, April,2022 - Dates - 29/6/22, 30/6/22, 1/7/22 ,4/7/22.</p> <p>3. B.Sc. CBCS - Semester -1 Complementary Zoology - Centralised Valuation Camp, July, 2022 – Dates - 25/8/22 & 26/8/22.</p> <p>4. B.Sc. CBCS - Semester -4 Complementary Zoology – Centralised Valuation Camp, August 2022. Dates – 30/11/22, 01/12/22, 2/12/22.</p> <p>5. B.Sc. CBCS - Semester -2 Complementary Zoology - Centralised Valuation Camp, October 2022 Dates - 6/1/23 & 16/1/23.</p> <p>6. B.Sc. CBCS - Semester -5 Core Zoology- Centralised Valuation Camp, November, 2022, Dates- 2/2/23, 3/2/23, 6/2/23, 15/2/23, 17/2/23.</p>

	<p>7. M.Sc. CSS - Semester -2 Complementary Zoology - Centralised Valuation Camp, November, 2022 Dates - 13/2/23.</p> <p>8. B.Sc. CBCS - Semester -3 Complementary Zoology - Centralised Valuation Camp, January, 2023. Date 28/3/23.</p> <p>9. B.Sc. CBCS - Semester -1 Complementary Zoology - Centralised Valuation Camp, February, 2023 Dates 25/4/23.</p> <p>10. B.Sc. CBCS - Semester -6 Core Zoology - Centralised Valuation Camp, March 2023, Dates – 8/5/23 to 12/5/23.</p> <p>External Examiner</p> <p>1.Semester 1, M.Sc. Molecular Biology & Genetic Engineering Practical Exam on September 26, 2022 in SCMS School of Technology & Management.</p> <p>2.B.Sc. Zoology CBCS (Voc.) Model II - 1st and 2 nd Semester Practical Examination on January, 05, 2023 in St. Xaviers College, Vaikom.</p> <p>3.B.Sc. Zoology CBCS 3rd and 4 th Semester Practical Examination on March 30, 2023 in St. Teresa’s College, (Autonomous), Ernakulam.</p> <p>4. B.Sc. Zoology CBCS 5 th and 6 th Semester Practical Examination and Viva Voce from April 26 to May 2nd and May 4, 2023 in The Cochin College, Kochi.</p>
Dr. Sonia John	<p>Additional Examiner</p> <p>1.Semester III Complementary UG CBCS January 2023. Date: 28-3-2023.</p> <p>2.Semester I Complementary UG CBCS February 2023. Date: 25-4-2023.</p> <p>3. Semester VI UG CBCS April 2023. Dates: 8th-12th May, 2023.</p>

Institutional responsibilities held by the faculty

Name of the Faculty	Responsibilities Held
Dr. Simi Joseph P	Co-ordinator EUREKA 2023, National Science Day Celebration College Day Awards & Scholarships JUNE 2022 & MARCH 2023
Dr. Sherin Antony	Open Course Co-Ordinator, UG-CAP Admission Committee member
Dr.Sonia John	UG-CAP Admission Committee member

Faculty Achievements (2022-23)

Ms. Sonia John was awarded Ph.D in Zoology from the University of Kerala for her Doctoral thesis entitled “Molecular Diversity and Management of Red Flour Beetle *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrinoidea) from different warehouses in India” on 25th October 2022.



Faculty Publications (2022-23)

1.Dr. Sherin Antony

Edwin Joseph , Chinnu Ipe , Nisha P. Aravind , Sherin Antony, Jobin Mathew, First report of the termite *Glyptotermes ceylonicus* (Blatodea: Isoptera: Kalotermitidae) from India: an example of discontinuous distribution, Journal of Threatened Taxa, June 2022 14(6): 21290–21295 ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print) <https://doi.org/10.11609/jott.4715.14.6.21290-21295> #4715

Book Chapter

Antony, S., Anju, T.R., Thomas, B. (2022). Nature-Inspired Biomimetic Polymeric Materials and Their Applications. In: Thomas, S., AR, A., Jose Chirayil, C., Thomas, B. (eds)

Handbook of Biopolymers . Springer, Singapore. https://doi.org/10.1007/978-981-16-6603-2_50-1. Print ISBN978-981-16-6603-2.

2. Dr.Sonia John

1. Meenakshy Panicker, Sonia John And Reshmi V (2023). Use of Pea Protein Fractions in the Management of the Red Flour Beetle, *Tribolium castaneum* Herbst. Research Journal of Agricultural Sciences. Volume 14; Issue 01; pp 341–343
2. Sonia John, S. Santhosh, Prabhakumari C (2022). Molecular Characterization of Red Flour Beetle *Tribolium Castaneum* (Herbst) (Coleoptera: Tenebrionidae) from Various Warehouses in India. Advances in Bioresearch, Vol 13 (5): pp 45-53

3. Ms. Chitra Rajagopal

Chitra Rajagopal, Anu Anto and K. V. Vinod (2023). “A checklist of dung beetles (Coleoptera: Scarabaeidae: Scarabaeinae) associated with the Vypin- Kadamakkudy Barrier Island System, Kerala, India” is available online in the Journal of Asia Pacific Biodiversity, Elsevier (12th May 2023)

Book Chapter

Chitra Rajagopal, Anu Anto and K. V. Vinod (2023). Natures Poop Scoopers and Their World of Competition” in DHOLE: Devagiri Headlines on Life & Environment- Edition II Entomology (ISBN: 9798364845498).



Department Association 2022

Department of Zoology has a Spirited Zoology Association and Friends of Fauna – a nature club and an extension wing of zoology association.

Logos of the association and FOF were designed by students themselves. Zoology association logo depicts that wildlife should be protected and be in the safe hands of human being with the motto, 'Sarvajeevimangalam'. The logo of Friends Of Fauna (FOF) symbolizes Mother Nature (in the form of Globe) portraying the picture of Slender Loris (in malayalam – Kuttithevangu'), an endangered animal of Kerala.

The various activities regularly and annually conducted under its banner include Inter-collegiate Debate competition for Rev. Fr. Jacob Kariatty Memorial Ever rolling Trophy; Inter-school Quiz competition for higher secondary students in connection with Wild Life Week; Inter departmental Quiz competition for Prof. P.P. John ever rolling trophy during Energy Conservation week; Observance of days of scientific importance such as June 5-World Environment Day, July 11- World Population Day, August 6 – Hiroshima Day, September 16 – World Ozone Day, The ENCON club (Energy Conservation) functions jointly with the zoology association.

Department of Zoology has been publishing a manuscript magazine christened 'Nautilus' since 1989 to nurture the soft skills of our students. 'Nautilus' calligraphically depicts articles on science & literature, poetry, sketching, paintings, cartoons, etc. so that the soft skills of our students are brought to light.

The year 2020 was a remarkable year for the department as 2020 as THE GOLDEN JUBILEE YEAR of the Department of Zoology.

Structure of the Association:

Staff In charge: Dr. Sherin Antony

President Abhiram Suresh

Secretary: Anashwara Muralidharan

Other office bearers: Aysha M.M, Alex Jose, Joseph Peter, Rajath A.R, , Esther Antony Thomas, Bilna Paul, Akshay M. Sabu, Rohan P S, Swetha S

Association Day - 31st March 2023



Faculty with the A+ Holders of 2019-22 Batch

Non-Academic Activities

Onam Celebration

Date and Time : 2nd September 2022; 9.30 AM

Coordinator : Dr. Sherin Antony

Number of Participants : 65 students + 4 faculty members

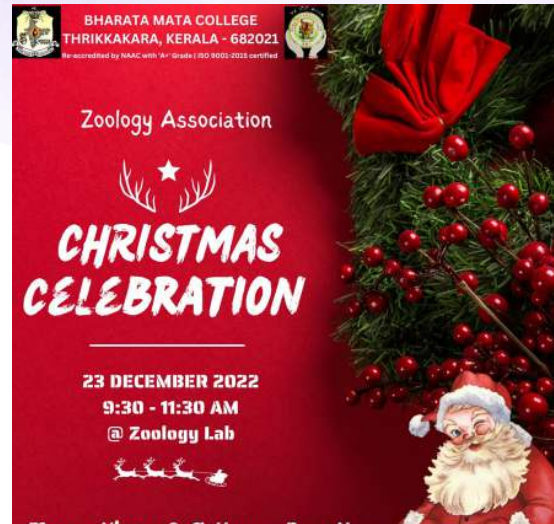
Department wise Onam Celebration was held on 2nd September 2022 at Zoology Laboratory from 9.30 am onwards. Nihal Nebulsi of II DC wore the attire of Maveli. II DC students organised the celebration with various games for teachers as well as for students. Various performances including traditional Dance form- Thiruvathira were made by students. Everyone enjoyed the delicious Onasadya by 1.00 pm and the programme came to an end with Vadamvali competition between students



Christmas Celebration

Zoology association celebrated Christmas on December 23, 2022 from 10:00 am onwards. Carol songs were sung by II and 1 DC students. II DC students organized various games for students and faculty. Prizes were distributed to the winners. Christmas cake was jointly cut by the HOD and Santa Claus and everyone relished the same.

In relation with the Christmas Celebration 2022, Zoology Association conducted Interdepartmental Nano crib and Leaf painting Competition. The prize winners are Kavya Karthikeyan, 1st DC Zoology for Nano crib making and Tincy Thomas, 1st DC Botany for Leaf painting. Also Sana Nafeesa Jahangeer, 1 BSc Zoology secured 1st prize in Christmas Card Making Competition conducted by the Nature Club of Bharata Mata College.



Academic Activities

Deploying Nano- And Micro-Technologies In Striking The 'Immuno' Balance In Cancer Therapy

Date and Time : November 11, 2022 at 2:00 pm

Coordinator : Dr. Sherin Antony

Resource Person/s : Dr. Sreeja Narayanan, Department of Biotechnology, CUSAT

Number of Participants : 100

Zoology Association 2022-23, of Bharata Mata College, Thrikkakara was Inaugurated on November 11, 2022 at 2:00 pm at MSW Hall by, DBT/Wellcome Trust Fellow and Principal Investigator, Nanobiotechnology Laboratory, Department of Biotechnology, Cochin University of Science and Technology. The programme started with a Prayer Song by Kavya Karthikeyan, Vindhya, Gayathri PR (I DC Zoology). Dr. Simi Joseph P, HOD of Zoology, rendered the welcome address. Dr Sonia John gave a brief introduction of the Guest Speaker. Dr Sreeja delivered a Talk on “Deploying Nano- And Micro-Technologies In Striking The ‘Immuno’ Balance In Cancer Therapy”. After the scientific session, Faculty and Students had an interaction with the Guest Speaker. The talk was highly informative and enlightened the students about various therapy methods using nanotechnology. Prizes for various competitions conducted by the Association was distributed by the Chief Guest. Vote of Thanks was rendered by Dr. Sherin Antony – Staff Coordinator. It was followed by cultural programme by Students of 1, 2 and 3 rd DC. The function concluded by 4.30pm.



Talk on Sustainable Aquaculture- Role of microbes in Biofloc & Aquaponics System

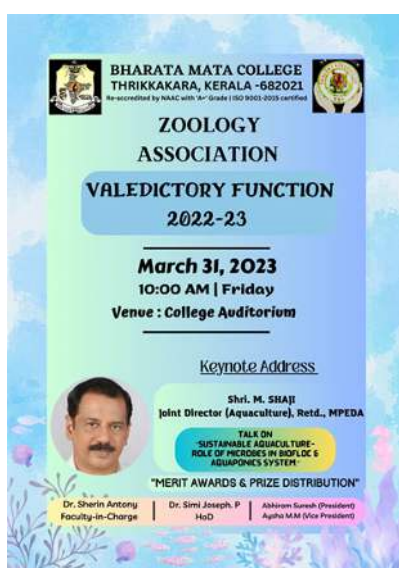
Date and Time : March 31st, 2023

Coordinator : Dr. Sherin Antony

Resource Person/s : Mr. SHAJI M, Joint Director, Aquaculture (Retd.) MPEDA

Number of Participants : 100

On 31st March 2023, in connection with Valedictory Function of Zoology Association Activities 2022-23, an Invited Lecture was delivered by Chief Guest - Mr. SHAJI M, Joint Director, Aquaculture (Retd.) MPEDA, alumnus of the Department (1977 – 1980 Batch). It was a very informative and interactive session. As Aquaponics and Biofloc are recent techniques, students received a first hand information from an expert. Students became aware of the types of research conducted in these fields which would be beneficial to mankind as they provide huge yield when compared to traditional methods of Aquaculture. 9 A + holders of 2019-2022 batch were also felicitated. In the afternoon session, ZESTA '23 Association day events were held with cultural programmes by students of I, II & III DC and farewell was given to the outgoing students (2020-23 Batch)



Day Observations

World Environment Day

Date and Time : 6th June 2022; 1.30 -4.00 PM

Coordinator : Dr. Sherin Antony

Number of Participants : 6 teams after screening

Zoology association observed World environment day with an Interdepartmental quiz competition; to create awareness about Environment, on 6th June 2022 [5th June was Sunday] from 1:30 to 4:00 PM in the Zoology lab. Dr. Sherin Antony, the Zoology Association Staff coordinator of 2022-23 and organised the competition. Six teams were screened through Google form quiz. Dr Simi Joseph P, HOD welcomed the gathering.

Four teams were selected after screening. Winners were selected through 4 Rounds. Topics for the 4 Rounds were as follows:

- Round 1 – Environmental movements & law
- Round 2 – Environmental activists
- Round 3 – National Park /Days
- Round 4 – Rapid fire

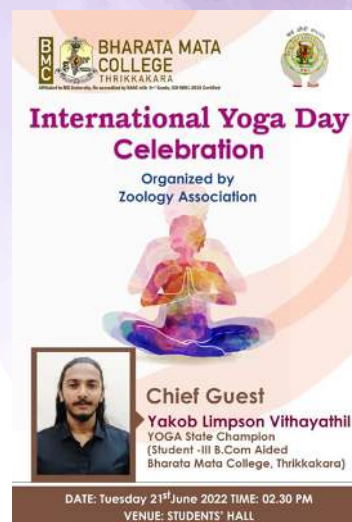
Bhadra Narayanan & Aneeta Francis of 1st Sem B.Sc Botany secured 1st prize in the Quiz competition and they were awarded with certificates and Mathrubhumi year books. Second prize was bagged by Niranjana Krishna K & Dev Dilip of 3rd B.Sc Chemistry Students. Mathrubhumi year book was presented to them as prize. Vote of Thanks was rendered by Dr. Sherin Antony, Assistant Professor, Department of Zoology.



International Yoga Day

Date and Time : 21 st June, 2022; 2.30 PM
Coordinator : Dr. Simi Joseph P
Resource Person/s : Mr. Yakob Limpson Vithayathil
Number of Participants : 65

On 21 st June 2022, International Yoga Day was Observed at 2.30 pm in the student's hall. Our resource person and trainer was Mr. Yakob Limpson Vithayathil, III B.Com student of Bharata Mata College. He shared his journey to YOGA, health benefits of Yoga etc and made students perform various postures (asanas). The chief guest was presented a memento by the HOD.



The International Tiger Day

Date and Time : July 29, 2022; 1.30 to 3.30 pm

Coordinator : Dr. Sherin Antony

International Tiger day is observed every year on July 29 across the world to raise awareness for tiger conservation. According to the World Wildlife Fund, India is home to over half of the World's Wild Tigers-2,226.

This year, the Department of Zoology of Bharata Mata College organized a very special program for Tiger Day. An intercollegiate face painting competition was held for the first time. 6 teams from different colleges

participated in the event. The face painting competition was organised from 1:30 to 3:30 on 29 July at the Zoology lab. Mrs. Veena Jayakumar - Guest lecturer, of the Department of Economics and Dr. Simi Joseph P, HOD of Zoology Department judged the competition. After the painting, the participants explained the theme of the painting. Diya Vinod and Aabha Shanker from Government Ayurveda College secured 1st prize and they were awarded cash prize of Rs. 1000/- and certificates. Aarsha V and Ahamed Nazer from NUALS, Kalamassery got 2nd prize and were awarded with cash prize of Rs. 500/- along with certificates. The face painting competition was an experimental platform as all the teams presented a variety of artwork.



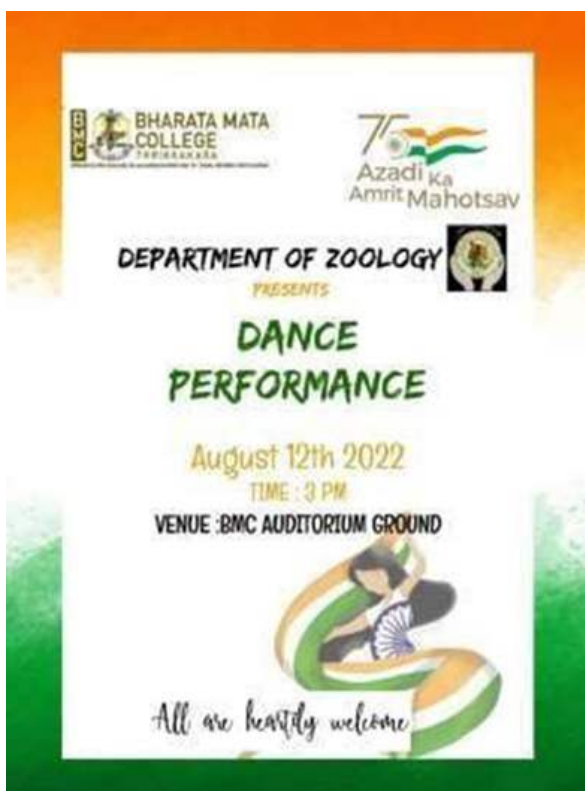
Independence Day - 'Azadi Ka Amrit Mahotsav' -

Date and Time : 12th August 2022; 2 PM

Coordinators : Dr. Sherin Antony and Dr. Sonia John

Number of Participants : 65 students + 2 faculty members

On 12th August 2022, as a part of the 75th year of India's Independence for which 'Azadi Ka Amrit Mahotsav' was celebrated, the Zoology Association of our college conducted a dance performance upholding the theme of patriotism. The participants were II DC students of our department. By displaying the National Flag and placards with messages about the freedom struggle, the program was able to convey the value and importance of freedom to the audience. Dr. Sherin Antony and Sonia John, Faculty of Zoology Department were the coordinators.



International Ozone Day Celebration

Date and Time : 16th September 2022; 1 PM

Coordinator : Dr. Simi Joseph P

Number of Participants : 30 students

I B.Sc Zoology Classes started on 12th September 2022. The first competition organised for them was a Poster making competition on Ozone day on the last day of that week. Students actively participated. The winners were given prizes on the valedictory function on 31st March 2023.



National Wildlife Week, 2022

Date and Time : OCTOBER 2 - 8, 2022

Coordinator : Dr. Sherin Antony Dr. Sonia John & Chitra Rajagopal

Number of Participants : 100 students + 3 faculty members

National Wildlife week was celebrated from 2nd to 8th October. Zoology Association of Bharata Mata College conducted an intercollegiate digital painting competition on an online platform with "Wildlife" as theme. 8 participants posted their digital paintings. The competition was coordinated by student coordinators Aysha M. M and Abhiram Suresh of Illrd DC Zoology and Faculty Coordinator Dr. Sherin Antony. The last date to send the paintings was 8th of October. 1 st prize was won by Aleesha Asokan of Bharata Mata College and Ashwin Koshy Thomas of Toc H Institute of Science and Technology bagged the second prize. Winners were awarded with cash prizes and certificates.



National Science Day -Eureka 2023

Date and Time : 28th February 2023

Coordinator : Dr. Simi Joseph P

Number of Participants : 145

On 28th February 2023, the 6 Science Departments of BMC Thrikkakara celebrated National Science Day –as the Open House of all the six Science School Depts- 3 PG Departments, 2 UG Departments and Dept of Computer Science which offers Integrated P G in Artificial Intelligence & Machine Learning. The programme was inaugurated by the Manager Rev. Dr. Abraham Oliapurath and Principal Dr. Johnson K.M. The Labs and Museum were open to Public. Experiments were demonstrated and models were displayed in the respective venues. UG and PG students were actively involved in arranging the labs and explaining the facilities to the visitors. Students from 6 schools visited our labs and we got wonderful responses from

Programme Schedule

10:00 am	Inauguration	Venue: Auditorium
10:30 am	Inter-School Quiz	Venue: Auditorium
10:30 am to 4:00 pm	Exhibition & Lab visits	Venue: Respective Departments

Inter-School Science Quiz Competition for Windermere Rolling Trophy for High School & Higher Secondary Students

- 1st Prize- Rs 3000 & Certificates
- 2nd Prize- Rs 2000 & Certificates
- 3rd Prize-Rs 1000 & Certificates

A team of 2 students can participate from a school
One team member must be a HSS Student
Register on or before 12.00 pm Monday 27th February 2023

Advisory Committee
Rev. Fr. Dr. Abraham Oliapurath (Manager)
Dr. K.M Johnson (Principal)
Co-ordinator
Dr. Simi Joseph P (HOD, Dept. of Zoology)

Organising Committee
Dr. John T Abraham (HOD, Dept. of Computer Science)
Dr. Senthur Joseph (HOD, Dept. of Chemistry)
Dr. Newby Joseph (HOD, Dept. of Botany)
Dr. Anu Philip (HOD, Dept. of Physics)
Dr. Seethu Varghese (HOD, Dept. of Mathematics)

For details and registration.
Contact : Dr. Simi Joseph P, 9447659821, 8590823919

EUREKA 2023
A Journey through Science

The Science Departments of Bharata Mata College
cordially invite you to

National Science Day
28th February 2023

Event Highlights:
• Inter-School Quiz for Windermere Rolling Trophy (For High School & Higher Secondary Students)
• Exciting opportunity to visit different labs & exhibitions conducted by various departments

Free Entry

OPEN TO PUBLIC



all the visitors. Interschool Quiz Competition for Winderemere Rolling Trophy instituted by Dr. Simon, a neighbour and Well-wisher of the College was also conducted. Dr. Manesh Michael, sst. Professor of the Dept. of Physics was the Quiz master. Cash Prizes and Certificates were distributed to the Winners. A Video on the Learning and Research Facilities in BMC were shown to the audience. The concerted effort of 41 Science Faculty was a huge success. The total footfall for the Open House was 145. Champion School Edappally emerged as winners and won Certificates and Cash Prize of Rs 3000. Rajagiri Public School and St. Jude English Medium School Thammanam won the 2nd and 3rd Prizes respectively with Certificates and Cash Prizes of Rs 2000 and Rs 1000.



World SPARROW DAY OBSERVANCE on 20th MARCH 2023.

In connection with World Sparrow Day Celebration, drinking water facility was provided to birds in the extreme summer months. 5 Earthen pots were collected from Sri. Sreeman Narayanan, an ardent naturalist on March 11th 2023 . Those pots were kept in the terrace near to the corridor outside the Zoology lab. On a weekly basis, fresh water was supplied in the pots. Regular follow up was done till the rain started. With the start of the rain, we have removed the pots, cleaned them and kept for use in the next year.



Entry Level Examination

Category	No of Students
Advanced Learners	5
Average Learners	19
Slow Learners	9
Total	33

Bridge course

Date/s of Bridge Course : 12/9/2022

Teacher In charge : Dr. Simi Joseph P

Bridge course intends to give a preliminary background knowledge to students to have a connectivity between their XII th standard and Degree I st year and to bridge the gap between the Pre -University and University syllabi.

As the I B.Sc batch students of 2022 had mostly attended online classes in their XI & XII th standard due to the Covid Scenario, their learning was (to be more precise, learning incomes were) found to be quite ineffective and hence the bridge course focussed on establishing a solid foundation on the fundamentals in the subject. A 6 hour syllabus was framed which included basic concepts in Zoology that would help them in understanding their Semester I & II topics. As envisaged, the course has refreshed the students, raised their level of understanding of the subject and bridged the gap between their school syllabi and degree course. Dr. Simi Joseph P, Head of the Department and Ms. Sonia John, Class teacher in charge handled the sessions. Their classes started on 12.09.2022. Bridge course classes were also conducted during the initial days found to be more effective. Study materials were provided in Google Classroom. Students who joined late for the course also approached us as they understood the necessity of learning the fundamental concepts for better understanding of syllabus. Classes were repeated for the students who joined later. Students were encouraged to use online resources also and were asked to submit an assignment based on Bridge Course by 10th October 2022. The students submitted their assignment by the stipulated time and the assignments were corrected and discussions were made with the students regarding the same.

Mentoring Report - Department Level

The Department of Zoology follows the mentoring system initiated by mentoring Cell. The students are grouped and assigned a mentor teacher who is responsible for collecting academic performance and class attendance of individual students. The mentor regularly meets with mentees and is given necessary information regarding his/her mentees and is expected to offer guidance and counselling as and when required. In isolated cases, parents are called for special meetings with the Principal at the suggestion of the mentor. The result of the system has been implemented significant improvement in the teacher-student relationship. The system has been useful in identifying slow learners and advanced learners. The department organizes a remedial class on different subjects within the syllabus for poor/slow learners.

Department Mentor list 2022-23

Sl No.	Name of the Mentor	No. Mentees
1	Dr. Simi Joseph P	25
2	Dr. Sherin Antony	25
3	Dr. Sonia John	25
4	Ms. Chitra Rajagopal	25



Add-on / Certificate courses

Course Name : Medical Laboratory Techniques

Course coordinator: Dr. Simi Joseph P

After the Inaugural –Theory and Practical sessions by Mr. Antony Prabhu, Research Scholar, Dept of Advanced Zoology & Biotechnology, Loyola College Autonomous Chennai, on 29th October 2022, the theory sessions were taken in online mode by Dr. Pushparani V, Assistant Professor Loyola Institute of Frontier Education (LIFE), Loyola College Autonomous Chennai. MLT Add on Course Classes were conducted Online from December 2022 to February 2023 for Semester II B.Sc Zoology students. Add on Course on Medical Laboratory Techniques of 32 hours duration comprising 22 theory and 10 practical sessions were conducted by Dr. Pushparani V & team. Hands on Practical sessions were held for the students on 3rd and 4th April 2023. Practicals involving Blood samples were conducted in the lab. An Online Quiz (KAHOOT) was held towards the end of the programme on 4th April 2023. Certificates were distributed to all the participants



Sl No.	Name of the Student	Platform (SWAYAM, Edu net etc.)	Name of the Course	Duration
1	Ahammed Bilal M A	MGU online course portal	MOOC Organic farming	1 year
2	Akshay.M.Sabu	MGU online course portal	MOOC Organic farming	1 year
3	Alex Jose	MGU online course portal	MOOC Organic farming	1 year
4	Alfia T S	MGU online course portal	MOOC Organic farming	1 year
5	Amal Vijayan	MGU online course portal	MOOC Organic farming	1 year
6	Anagha Parvathy G	MGU online course portal	MOOC Organic farming	1 year
7	Angelin Mary	MGU online course portal	MOOC Organic farming	1 year
8	Anu Krishna Chandran	MGU online course portal	MOOC Organic farming	1 year
9	Bilna Paul	MGU online course portal	MOOC Organic farming	1 year
10	Catherine Johns	MGU online course portal	MOOC Organic farming	1 year
11	Fathima Nifla K A	MGU online course portal	MOOC Organic farming	1 year
12	Mary Candriya Paiva	MGU online course portal	MOOC Organic farming	1 year
13	Masoom Vinil	MGU online course portal	MOOC Organic farming	1 year
14	Muhammad Sadique A B	MGU online course portal	MOOC Organic farming	1 year
15	Nandana K Divakaran	MGU online course portal	MOOC Organic farming	1 year
16	Tintu Santhosh	MGU online course portal	MOOC Organic farming	1 year

17	Akshara O K	MGU online course portal	MOOC Organic farming	1 year
18	Apsara T A	MGU online course portal	MOOC Organic farming	1 year
19	Arun Paul	MGU online course portal	MOOC Organic farming	1 year
20	Ashna Prasad	MGU online course portal	MOOC Organic farming	1 year
21	Bibin Joy	MGU online course portal	MOOC Organic farming	1 year
22	Meenakshy P.V	MGU online course portal	MOOC Organic farming	1 year
23	Megha Mohan	MGU online course portal	MOOC Organic farming	1 year
24	Melvya Merin Victor	MGU online course portal	MOOC Organic farming	1 year
25	Nafeesatul Misiriya	MGU online course portal	MOOC Organic farming	1 year
26	Nikhila K S	MGU online course portal	MOOC Organic farming	1 year
27	Pratheekshalal V P	MGU online course portal	MOOC Organic farming	1 year
28	Rajath A R	MGU online course portal	MOOC Organic farming	1 year
29	Sanjuna Sunny	MGU online course portal	MOOC Organic farming	1 year
30	Sona Mariya Paul	MGU online course portal	MOOC Organic farming	1 year
31	Sreekutty Udayakumar	MGU online course portal	MOOC Organic farming	1 year
32	Steve Antony Thomas	MGU online course portal	MOOC Organic farming	1 year

MOOC Online exam for the 2020-23 Batch was held on 11th October 2022 and an online test for Absentees were held on 26th November 2022. All the 33 students passed in the examination and received certificates on 1st February 2023. Dr. Simi Joseph P the Mentor of 2020 admission students also received an experience certificate from MGU

Department level Infrastructure

- Number of Classrooms : 3
- No: of Labs : 2
- Museum : 1

Computers & Peripherals

- Laptops : 2 + 1 Damaged
- PCs : 3
- Over Head Projector : 1
- LCD Projectors : 3
- Printers : 2

Furniture & Fittings

- Desk : 43
- Bench : 40
- Tables : 52
- Chairs : 37
- Almirah : 7
- Shelf : 24
- Wooden stool in lab : 52

Lab Equipment

- Hot Plate : 1
- Centrifuge : 1
- Incubator : 3
- Dissection Microscope : 29
- Compound Microscope : 37
- Weighing Machine : 1
- Sphygmomanometer : 1
- Stethoscope : 1
- Autoclave : 2
- Water Purifier : 1

Department Meetings

Departmental meetings occur on a consistent basis and are going to lead to well-informed and more productive employees. A positive department meeting boosts strengthen relationships and to collaborate, work more efficiently with team members, lowers staff stress, and encourages engaging conversations. What's more is that departmental meetings reinforce the mission, vision, and values. The department meeting will be held on or before 10th of every month. HOD/HOD in charge will preside over the meeting. HOD will present and also maintain the minutes of the meeting.

Main topics for discussion:

- Students' attendance
- Students' performance in the department activities
- Students' improvements in the examination
- Review of last month's activities
- Plan the activities to be done in this month

Sl No.	Date of Meeting	Major Agenda
1	09-06-2022	Add On class for Sem II students (2022 Batch on Medical Laboratory Techniques). Orientation Programme for Sem II students.
2	20-06-2022	Observation of International Yoga Day. Farewell To Dr. Mumthaz Km & Welcome To Ms. Sonia John. Admission committee duty allocation.
3	10-08-2022	Hiroshima day observance, Independence day celebration, Revision & study holidays or Semester V students
4	30-08-2022	Onam celebration, welcome to I DC 2022-23 batch. Welcome to Ms. Chitra Rajagopal, New Guest Faculty
5	25-09-2022	Wildlife week celebration with Inter-departmental competitions and visit to Thattekad Bird Sanctuary

6	10-10- 2022	Study leave and Online revision classes from October 31st onwards for Sem II exam 2021-24 batch.. PTA Meeting & open house for III DC-3rd November 2022. Association Inauguration on November 11th 2022. Project work for III DC students at PVT Merit Biolabs from 1st week of November onwards.
7	14-11- 2022	Result analysis of Semester III. College Union Election
8	06-12-2022	First Internal Exam for Semester I 2022 Batch. Add on course online class
9	03-01-2023	Semester VI Classes from 9th January onwards. Sem I & II Core and Complementary- Repetition and conduct of MGU Practical Exams CUSAT Sasthrayaan Visit by III DC Students , Open House of I, II & III DC Classes
10	01-02- 2023	CMFRI Open House Visit By II & III DC Students. Visit To KAU, Vellanikkara Thrissur, Manuel Hatchery & Kavil Aluva by III DC Students. National Science Day Celebration-EUREKA 2023 on February 28th.
11	03-03- 2023	Zonal Zoofest participation, Association Valedictory function, honouring A+ holders and other Meritorious students
12	04-04- 2023	Practical Exams for Sem VI from 27th April to 5th May 2023. Repetition from 18th April 2023 onwards.
13	26-05-2023	Result Analysis 2020-23 Batch. Dept Annual Plan (2023-24) to be presented in AGAM 2023



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Kerala



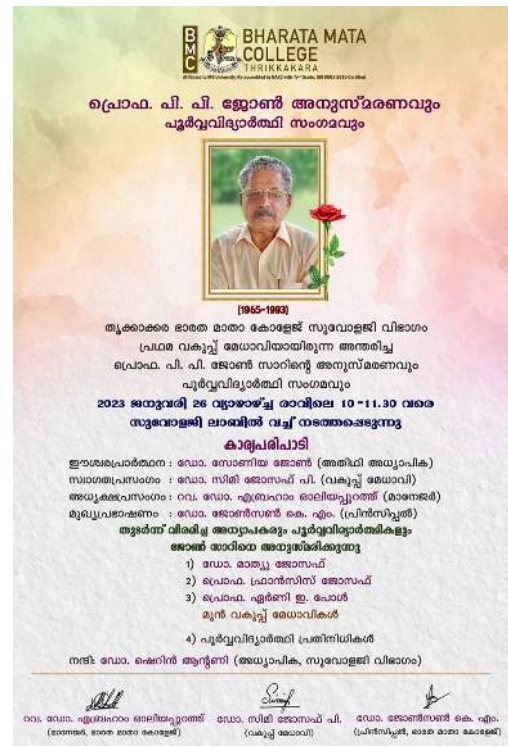
Sl. No	Date and Time	Name of the Alumni	Topic of the session
1	31-03-2023	SHAJI M	Sustainable Aquaculture- Role of microbes in Biofloc & Aquaponics System
2	03-04-2023 & 04-04-2023	Deon David	Practical session as part of Add On Course-MLT

Alumni Meet 26th January 2023

Co-ordinator-Dr. Simi Joseph P

The Dept of Zoology conducted Alumni Meet and Remembrance of our First HOD Prof. P.P.John on 26th January 2023. All the former faculty members of the Dept except Dr. A. Madhavan attended the Meeting. The programme began with a prayer song by Guest Lecturer Dr. Sonia John. Dr. Simi Joseph P, Head of the Dept welcomed the gathering. Principal Dr. Johnson K.M delivered the Presidential address. It was followed by memorial speech by former faculty members Dr. Mathew Joseph, Prof. Francis Joseph, Prof. Erney E.Paul and Prof. Grace Jacob. Various noted alumna of the Dept attended the function and shared their memories. A Tribute to Prof. P. P. John

was offered by a PPT presentation. Elder daughter of Prof. P.P John Mrs. Ligi Joseph also attended the meeting. First Priest from our Department, ever since its inception in 1965, who was ordained this year as Priest of Ekm-Angamaly Archdiocese- Rev. Fr. Antony Thannipally of 2014-17 B.Sc Batch was felicitated during the function. Refreshments were provided to all at the end of the meeting. Vote of thanks was delivered by Dr. Sherin Antony.







PTA

The Parent-Teacher Association (PTA) of each class gathered separately. PTA provides parents and teachers with the opportunity to exchange views, work together with the development of students as well as college. General feedback from parents is sought and elections take place. The Head of the department and all subject teachers represent the college.

Open House Meetings

Sl No	Class	Date
1	III DC Zoology	03-11-2022
2	I DC Zoology	17-01-2023
3	II DC Zoology	18-01-2023
4	III DC Zoology	30-01-2023

Topics discussed were-General Discipline, Internal assessment, Result analysis etc. Parents were met individually and the status of their wards were discussed with them and remedial measures were suggested. Most of the parents visited on their respective Open House days and those who could not turn up for the official meetings, visited us earlier or later at their convenient time. Follow up was done by creating Whatsapp groups of Class PTA and all relevant messages were also forwarded to them. They have been responding very positively. Principal Dr. Johnson K.M had addressed the parents of III DC Zoology on 30th January 2023.

(An open house meeting of the parents of III DC students was held on 3rd November 2022, the participation by parents was very less hence insisted every parent to meet us either on 30th January 2023 or on a date convenient to them)



Student's achievements - co curricular / Sports activities

SI No	Name of the Student	Class	Achievement
1	Catherine Johns & Steve Antony Thomas	II DC	Second prize in the Soil Art Competition organised by the Dept of Botany on World Soil Day, 5th December 2022.
2	Megha Sunil P	III DC	Ranked Senior Under Officer by 3 Alpha Company of BMC NCC.
3	Krishnapriya K R	III DC	Ranked Company Quarter Master Sergeant by 3 Alpha Company of BMC NCC.
4	Rajath A R	II DC	Attended the Army Attachment camp at Bangalore from 14th to 30th July 2022.
5	Lakshmi Shaji	III DC	Kalathilakam- in Navarang 2.0 College Union Arts Festival
7	Our Students of III, II & I DC		Secured First Place for Thiruvathira in the Bharata Mata College Arts Fest, Navarang 2.0.
8	Our Students of III & II DC		Won the Over All Championship & Rolling Trophy in Gensys –Department Fest–Conducted by Dept. of Zoology, Sacred Heart College Thevara
9	Krishna Priya K. R	III DC	Secured 1st prize for dissection with cash prize.
10	Thamima Thasnim & Swetha Siva Subramanya Iyer	III DC	Secured 1st prize for Spell Bee Competition
11	Niveditha S & Kalyani J Nair	III DC	Secured 2nd prize for Specimen identification
12	Antony Francis & Vishnu PT of 3rd year B.Sc. Zoology	III DC	Secured 3rd prize for Specimen identification
13	Gayathri Anilkumar & Megha Sunil P	III DC	Secured 3rd prize for PowerPoint presentation.
14	Steve Antony Thomas	II DC	Secured 3rd prize for poster making competition.
15	Alex Jose & Muhammad Sadique A	II DC	Secured 3rd prize for Quiz competition

16	Swetha Siva Subramanya Iyer	III DC	Secured 3rd Prize in Debate Competition held in connection with National Youth Conclave - held at Delhi on March 14, 2023
17	Alex Jose & Muhammad Sadique A	II DC	Secured 3rd prize for Intercollegiate Life Science Quiz competition conducted by The Department of Zoology, St. Xavier's College, Vaikom on 07-03-2023.
18	Kalyani J Nair & Niveditha S	III DC	Secured 2nd Prize in Quiz Competition at the Zonal ZOOFEST organised by Sacred Heart College Thevara





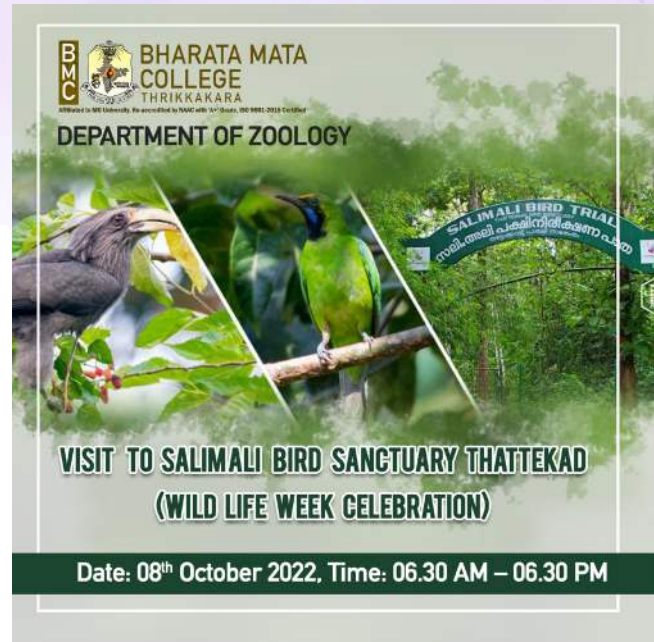

LAKSHMI SHAJI
Navarang 2.0 kalathilakam
ZOOLOGY ASSOCIATION, BHARATA MATA COLLEGE



Field Trip To Dr. Salim Ali Bird Sanctuary At Thattekad - October 8, 2022

On October 8, 2022, a total of 46 students from IInd and IIIrd B.Sc. Zoology along with 3 faculty members visited the Thattekad Bird Sanctuary and Bhuthathankettu dam in connection with Wildlife week. The prime interest of the field trip was to learn more about the flora and fauna and the habits of the birds that are annual visitors of the bird sanctuary. The field trip was educational and informative. The journey began at 6:30 am from college, in the college bus and reached the destination by 8:30 am. We had an introductory session by Forest Officers T.T.Sivadas and Mahesh regarding the history of Thattekad

Bird Sanctuary. Guided by Sivadas Sir, we trekked the Salim Ali Bird Trail and we saw Scarlet minivet (male) , Yellow naped wood pecker, Black drongo, Fairy blue Bird, Giant Squirrel. After the trek we had refreshments. Next we had an introspective class by Sivadas Sir on food adulteration, pollution and wildlife sanctuaries. We had our lunch, rested for a while and headed towards the Butterfly Park followed by the Animal Rehabilitation Unit. At the Animal Rehabilitation Unit, we spotted two pythons, peafowl and a Lion-tailed macaque. We then headed towards Bhuthathan kettu dam and reached there by 4:15 pm . Enjoying the panorama we clicked a few memories and returned to the college by 7:20 pm.



Cusat Open House (Sasthrayaan) - January 23, 2023

On January 23, 2023, Students of 3rd DC Zoology of Bharata Mata College, Thrikkakara visited Sasthrayaan Open house conducted by Cochin University of Science and Technology, Kalamasery. Dr Simi Joseph P, HOD of Zoology and other faculties- Dr. Sherin Antony, Dr. Sonia John and Chitra Rajagopal accompanied the students. First visit was in Department of Biotechnology. Research Scholars and P.G Students explained about the basic lab equipments used in Microbiology and Biotechnology labs. It includes fluorescence microscope, ELISA reader, FLOW cytometry. Techniques which come under practical of semester 6 were described - different types of plating techniques like spread plate, streak plate, antibiotic sensitivity test, MPN, yeast cell immobilization and the experimental set up behind it. Next visit to nanotechnology lab helped in familiarising the students about the bacterial culture which have been used as vaccine vectors and about the formation of nano particles. Microbiology lab was visited next, where students could watch different kinds of incubators like shaking incubator, microbiological incubators and instruments like spectrophotometer, PCR machine, autoclave, cryostat. Students and faculty interacted with Research scholars working on Zebra Fish. Animal house, where experimental mice and rats were maintained was visited. Next destination was CUSAT seminar complex where the various departments of CUSAT had set up stalls and explained about their research expertise and courses offered.



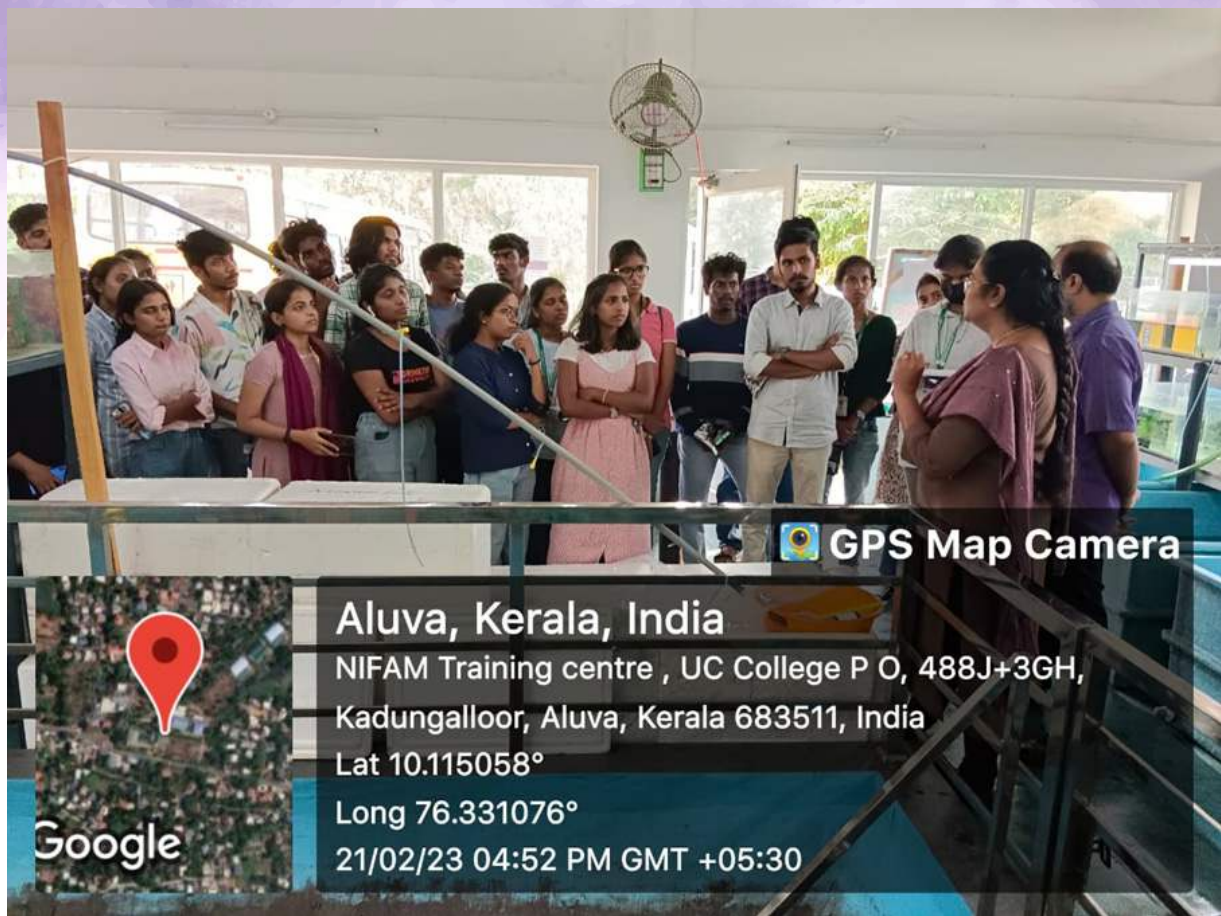
Visit To Kerala Agricultural University, Vellanikkara Thrissur, Kavil Aluva & Manuel Quail Hatchery

III B.Sc students of 2020-23 Batch along with Faculty members Dr. Simi Joseph P and Ms. Chitra Rajagopal and lab staff Mr. Joshy Thomas made a field trip to KAU, Vellanikkara Thrissur on 21st February 2023. We started at 6.45 am from the campus in our College bus. On our way to Thrissur we had our breakfast at Saravana Bhavan, Nedumbassery. The highlight of the day was our visit to our Former HOD Dr. A. Madhavan at his residence. 92 year old Retd. Professor was very delighted to welcome us. We were really moved by his warmth and spent

some time with him. He shared his memories in the Department of Zoology at Bharata Mata College from 1970-1987 and was surprised to receive the photographs of Alumni meet and Remembrance Function of our beloved Prof. P.P.John sir, which he could not attend. He was very enthusiastic and keen enough to show his Bats –his research animal to the new generation. We all really enjoyed the visit.



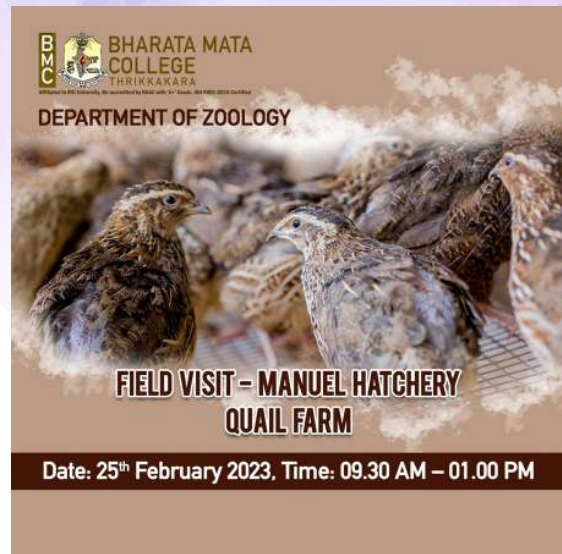




From there we moved to KAU, Vellanikkara and visited the Horticulture division there. The faculty and research scholars were very supportive and explained via PPT the rearing of bees to our students. Mr. Mohanan, the technical staff demonstrated the handling of Honey bees and explained the methods involved in Bee keeping. The students were shown the equipments used in Apiculture and were allowed to handle them for some time. We later visited the Vermicomposting unit and were shown different methods of waste management. After having lunch at KAU Canteen, we started back. On our way back, we also visited KAVIL (KERALA AQUAVENTURES INTERNATIONAL LIMITED) - a State Government initiative for export of ornamental fish & its breeding and hatchery maintenance. We started back to College and reached BMC by 6.30 PM. As it was pretty late, we postponed our visit to Manuel Hatchery to the next weekend.

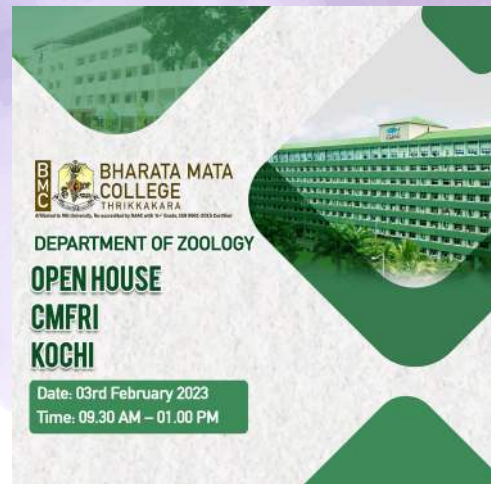
Visit to Manuel Hatchery Kalady

Students assembled in the campus by 8.30 am on Saturday 25th February 2023 and travelled to Manuel Hatchery in College bus. Dr. Simi Joseph P was the programme co-ordinator. Students were very much excited to understand the Topic-Quail farming in an experiential way. Most of us purchased highly nutritious and export quality Quail egg and meat at a reasonable rate.



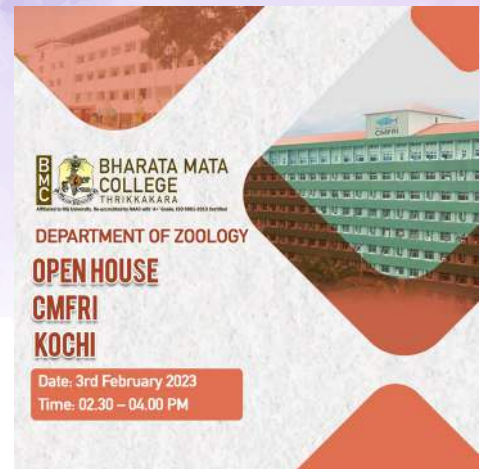
Visit To CMFRI Open House

On the 3rd of February 2023, the students of II B.Sc Zoology visited the Central Marine Fisheries Research Institute (CMFRI), Kochi as part of Open House conducted in connection with their Foundation Day. The purpose of the visit was to gain a deeper understanding of Marine life and the associated Research studies. They were fortunate enough to visit various labs and they could interact with the research fellows and scientists there. Live as well as fresh marine specimens were exhibited. They were also introduced to various new concepts in aquaculture and had the opportunity to watch various working models of systems like aquaponics, integrated multi trophic aquaculture system and recirculatory aquaculture system.



Visit To CMFRI Open House

The students of III B.Sc Zoology accompanied by the Head of the Department, Dr. Simi Joseph P visited the Central Marine Fisheries Research Institute (CMFRI), Kochi as part of Open House conducted in connection with their Foundation Day on the 3rd of February 2023. They got the opportunity to observe the scientific activities carried out by CMFRI. They visited the Marine Biodiversity Museum which is a Designated National Repository by Govt. of India which houses 3000 marine specimens. Of fishes, corals, sponges, sea snakes, turtles, seaweeds, sea grasses, deep sea fishes, reef inhabitants etc. They also visited various research labs and interacted with the research fellows and scientists there. They could also observe various working models of systems like aquaponics, integrated multi trophic aquaculture system and recirculatory aquaculture system.



Faculty Attended Programmes

FDPs/ STTPs/Workshops/Seminars / Conference/ Webinar

Total Number of FDPs/ STTPs

Total Number of Workshops

Total Number of Seminars / Conference : 3

Total Number of Webinar

Name of faculty	Name of Programme	Date/s	Conducting Agency	FDPs/ STTPs/ Workshops/ Seminars / Webinar
Dr. Simi Joseph P	Recent Trends in Aquaculture	9th & 10th March 2023	Dept. of Marine Biology & Microbiology, CUSAT	National Seminar
Dr. Sherin Antony	GNR Centenary Symposium for Structural Biology.	February 21-22, 2023.	Department of Biotechnology, CUSAT	Symposium
Dr. Sonia John	GNR Centenary Symposium for Structural Biology.	February 21-22, 2023.	Department of Biotechnology, CUSAT	Symposium



Student's Projects

SI No	Roll No	Name of Student	Topic of Project	Research Supervisor	Name of the Company
1	20Z1101	Abhirami Rajesh	Antioxidant and antibacterial potential of forest ant extracts-	Dr. Simi Joseph P	PVT Merit Biolabs
2	20Z1102	Aiswarya Kp	Analysis of the antibacterial activity of violacein extracted from Chromobacterium violaceum-		
3	20Z1105	Anashwara Muralidharan	Isolation of pathogenic bacteria from house flies		
4	20Z1106	Antony Francis	Prevalence of multi-drug resistant bacteria in smokeless tobacco products		
5	20Z1107	Bineesh Balakrishnan	Isolation And Characterization Multidrug-Resistant Bacteria From Used Nose/Face Mask		
6	20Z1108	Jeff Joseph	32. Isolation of MDR pathogen in kitchen sponges and analysis of antibacterial activity of common dishwashes		
7	20Z1109	Joseph Peter V.J	Insecticidal property of jackfruit peel extract against rice weevils		
8	20Z1110	Lakshmi Shaji	Analysis of the detergent activity of lipase-producing bacteria		
9	20Z1111	Mohammed Arshaq P	Extraction of betalains from Red Beetroot (Beta vulgaris L.) and to evaluate its antibacterial potential against acne-causing bacteria.		

10	20Z1112	Niveditha S	Bioethanol Production from Decaying Fruits Peel Using <i>Saccharomyces cerevisiae</i> -	Dr. Sherin Antony	PVT MER-IT BIO-LABS
11	20Z1113	Pavithra Haridas	Isolation of cockroach endosymbiont bacteria with the potential to produce a hydrolytic enzyme		
12	20Z1114	Swetha Siva Subramanya Iyer	Isolation of cellulase-producing bacteria from cow dung		
13	20Z1115	V K Varundev	Evaluation of natural fertilizer extracted from expired dairy products as a soil amendment		
14	20Z2117	Abhiram Suresh	Extraction Of Curcumin And Its Antibacterial Activity Against Acne Causing Microorganisms-		
15	20Z2119	Aswin G T	Extraction of essential oil from pepper and analysis of its activity against respiratory pathogen		
16	20Z2121	Aysha. M.M	Bioactive potential of garlic/onion peel extracts		
17	20Z2122	Bithulya Sudhakaran	Extraction of anthocyanins from butterfly pea flower and analysis of its bioactive potential.-	Dr. Sonia John	PVT MER-IT BIO-LABS
18	20Z2123	Esther Antony Thomas	Antioxidant activity of pigment extracted from shrimp shells		
19	20Z2124	Gayathri Anilkumar	Isolation of biofilm-forming bacteria from the buccal cavity		
20	20Z2125	Jafrin A	Synthesis of bioplastic using cellulose exacted from banana peel		



21	20Z2126	Kalyani J Nair	Antibacterial Properties of Snail Mucus on Bacteria Isolated from Patients with Wound Infection	Dr. Sonia John	PVT MER-IT BIO-LABS
22	20Z2127	Krishnapriya K R	Extraction of keratin from chicken feather		
23	20Z2128	Mariya Jose	Antibacterial activity of honey against wound pathogen		
24	20Z2129	Megha Sunil P	Green synthesis of silver nanoparticle and its analysis of its effect against wound pathogen		
25	20Z2130	Muhsinah T	Analysis of the role of bromelain extracted from pineapple peel as a food preservative		
26	20Z2131	Muneera Sulaiman	Extraction of caffeine from used coffee powder and analysis of its anti-dandruff activity	Chitra Rajagopal	
27	20Z2132	Nevin Antony	Isolation, Identification And Antibioqram Analysis Of Bacteria Isolated From Cow Meat Sample		
28	20Z2133	Rohan P S	Isolation and characterization of ureolytic bacteria to produce biocement		
29	20Z2134	Romitha Merlin Roy	Analysis of antibacterial activity of plant extract against uropathogens		
30	20Z2135	Shabna. N. M	Isolation of probiotic bacteria from fish gut		
31	20Z2136	Sivaprasad N V	Isolation of Poly- β -hydroxybutyrate (PHB) producing bacteria from mangrove soil		
32	20Z2137	Thamima Thasnim	Extraction of chitin from crab shell waste		
33	20Z2139	Vishnu P T	Analysis Of Antimicrobial Effects Of Essential Oils From Orange Peels Against Food Borne Pathogens		



Student Progression

SI No	Roll No	Name of the Student	Designation / Organisation	Annual CTC (in Lakhs)
1	20Z2123	Esther Antony Thomas	My Captain	5,00,000 Per Annum
2	20Z2123	Esther Antony Thomas	Focus Edumatics	2,50,000 Per Annum
3	20Z2121	Aysha M. M	Focus Edumatics	2,50,000 Per Annum
4	19 Z1111	Fasna M. M	Certified ESL Trainer at Britfort Academy, Kaloor	

Students went for Higher Education

SI No	Roll No	Name of the Student	Institution opted for Higher Education	Course Name
1	19Z1101	AARCHA M B	St. Albert's College, Ernakulam	M.Sc Zoology
2	19Z1102	AKSHAY T R	CUSAT	M.Sc Marine Biology
3	19Z1105	ANNA SHIBU	St. Xavier's Training College for Women, Aluva	B.Ed Natural Science
4	19Z1109	DONA DAVIS	Adi Sankara Training College Kalady	B.Ed Natural Science
5	19Z1116	JANNATH MAJEED	Jain Deemed to be University, Bangalore	M.Sc Cellular and Molecular Oncology
6	19Z1118	NAIMA NASRIN P S	MES College, Marampilly	M.Sc Biotechnology
7	19Z1119	SENNA DAVIS	Britfort Academy, Kaloor	IELTS
8	19Z1120	SISIRA K SASI	Metro Paramedical Institute Perumbavoor	B.Sc Radiology
9	19Z2124	CHANDHANA SAJEEVAN	Alphonsa College Pala	M.Sc Zoology
10	19Z2125	DEEPTHI DINESH	NSS Hindu College Changanacherry	M.Sc Zoology

11	19Z2128	MEGHA AN-DREWS	St. Albert's College, Ernaku- lam	M.Sc Zoology
12	19Z2131	PRANEESHA PRASAD	Lingaya's Vidyapeeth, Hary- ana	B.Voc Radiology and Medical Imaging Tech- nology
13	19Z2132	RASIYA NAR- GHESE	Govt. ITI, Kalamassery	ITI
14	19Z2134	SNEHA LAL	St. Albert's College, Ernaku- lam	M.Sc Zoology



Teaching Learning Innovative practices in the department

Teaching and learning innovative practices are introduced to raise the curiosity of a student. The following innovative practices are undertaken by the faculty members of Zoology department for improving teaching and learning experience

Innovative Practices	Outcome
Lecture method	Hands on experience, Peer-to- peer Learning Experiential learning, Collaborative Learning Audio-Visual presentations through LCD and Virtual classrooms
Interdisciplinary Lectures	Aware students with the latest relevant technologies in different fields in Science
Major/Mini Projects	Prepare students to develop live projects on their own.
Student Seminars	Motivating students for self-Study and Group Study.
Course Assignments	Encourage student collaboration through supplement learning
Library Based Assignments	Promote Usage of Library by students and enhances their knowledge
Communication Skills	Improve the presentation and speaking skills in group discussion as well as in interviews faced.
Seminars/ Webinars/ workshops	Engages students by using real-world challenges, problems, and scenarios to evoke critical thinking, problem-solving, collaboration, and self-management
Online Tutorial	Enhance the overall comprehension of students in a more dynamic way
Virtual Lab	In addition to Laboratory experiments, subject training is provided using virtual dissection CDs
NPTEL Lectures	Promote self-learning and to share knowledge among students

We follow Lecture (Offline as well as Online) as well as Practical –(laboratory experiments) method of teaching, promote student seminars, make them submit assignments and conduct Webinars. In 2021-22 II DC students organised Ozon Sparen (Ozone Day Celebration) and III DC students organised Hiroshima Day Observance (Hibakusha).



BHARATA MATA COLLEGE

Owned & Managed by Archdiocese of Ernakulam - Angamaly

NAAC with A+ Grade, NIRF is Ranked in the BAND of 151-200, DBT Star College

The WEEK - Hansa Survey-2023 Best Colleges of India Ranking 2nd in the State.

ISO 9001-2015 Certified

Internal Quality Assurance Cell

Website: www.bharatamatacollege.in, Email: manager@bharatamatacollege.in

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