



**St. Mary's College (Autonomous)**

Re-accredited with A<sup>+</sup> grade by NAAC (4th Cycle)

Thoothukudi, Tamil Nadu



# NEWS LETTER

**DEPARTMENT OF ZOOLOGY**

**ACTIVITIES JUNE 2020 – JULY 2021**

## “ANNUAL REPORT”

### Editorial Team

Dr. **Hermin Pasangha**, M.Sc.,B.Ed.,Ph.D., (HoD)

Dr. **N.Arakiya Mary** M.Sc.,M.Phil.,Ph.D.,

Dr. **P.J.Joslin** M.Sc.,M.Phil.,Ph.D.,

Dr. **S.Mary Baptista Janet** M.Sc.,M.Phil.,B.Ed.,Ph.D.,

Dr. Sr. **C.Shibana** M.Sc.,M.Phil.,B.Ed.,Ph.D.,

Dr. **Jemma Hermelin Jesy Diaz** M.Sc.,M.Phil.,B.Ed.,Ph.D.,

Dr. **S.R.T.Sherly Cross** M.Sc.,M.Phil.,B.Ed.,Ph.D.,

Dr. **S.Selvi** M.Sc.,M.Phil.,SET.,B.Ed.,Ph.D.,

Dr. **R.Sripriya** M.Sc.,Ph.D.,NET

Dr. **M.Paripooranaselvi** M.Sc.,M.Phil.,B.Ed.,Ph.D.,SET

Dr. **Subavathy** M.Sc.,M.Phil.,SET,Ph.D.,

### Department Activities

#### Online Quiz 18.05.2020

Department of Zoology organized an online quiz on “Devastating Viral Diseases” on 18.5.2020 from 10 a.m. to 12.30 p.m. Twenty five MCQ were asked and grades were provided based on the marks obtained. Only those who obtained the marks above 60 were given certificates. Total number of registrations was 298. Among them 106 participants received their certificates.

#### Webinar on

#### COVID 19 – A HERCULIAN CHALLENGE TO HUMAN IMMUNOLOGY 05. 06. 2020

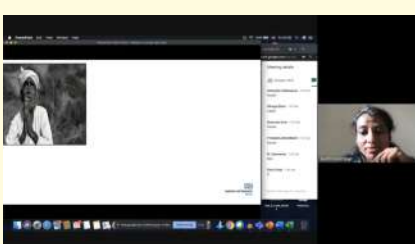
Department of Zoology organised a webinar on the topic 'COVID 19 – A HERCULIAN CHALLENGE TO HUMAN IMMUNOLOGY'. Dr. Rajavel Murugan M.D (Gen) DCH, Associate Professor, Dept. of General Medicine, Govt. Thoothukudi Medical College, was the resource person. Invitations were sent to various colleges. The webinar was held on 05.06.2020 at 10 a.m, Zoom meeting. Dr. Rajavel Murugan clearly explained the ill effects of the disease, control and preventive measures to be taken. The UG and PG students and the faculty members of our college and other colleges were the beneficiaries.



**International Webinar  
A Path to Wellness :  
Diabetes and Me 26. 6. 2020**

**St. Mary's College (Autonomous)**  
(Re-accredited with A+ Grade by NAAC)  
Thoothukudi  
Department of Zoology  
Organizes  
**INTERNATIONAL WEBINAR**  
on  
**A Path to Wellness: Diabetes and Me**  
Date: 26 June 2020  
Time: 10.30 am - 12 Noon  
**Resource Persons**  
Session 1  
Dr. Aarathy Kannan  
M.D., Dip. Diab., MBA (HM)  
Consultant Physician & Diabetologist  
Sundaram Arulraj Hospital  
Thoothukudi  
Session 2  
Dr. Aarthi Surendran  
M.D., MRCP, CCT  
Consultant in Diabetes and  
Endocrinology  
University Hospital Lewisham  
London  
**Chief Patron**  
Rev. Sr. Flora Mary  
Principal, St. Mary's College (Autonomous)  
Thoothukudi  
**Patron**  
Rev. Dr. Sr. A.S.J. Lucia Rose  
Principal, St. Mary's College (Autonomous)  
Thoothukudi  
**CONTACT:**  
zoologywebinar26@gmail.com  
Registration link:  
https://forms.gle/1tAx5gWfPpxcL6W36  
No Registration Fee  
E-Certificate will be provided

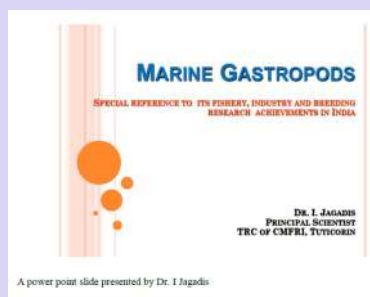
PG and Research Department of Zoology organized an International Webinar on "A Path to Wellness : Diabetes and Me" on 26.6.2020 from 10.30 a.m. to 12.00 p.m. The total number of 382 registrations were recorded. Students and Faculties from various institutions registered and participated in the webinar. Dr. Aarathy Kannan, Consultant Physician and Diabetologist, Sundaram Arulraj Hospital, Thoothukudi and Dr. Aarthi Surendran, Consultant in Diabetes and Endocrinology, University Hospital Lewisham London delivered the lectures on different aspects of Diabetes.



**International Webinar on  
Marine Biology 11. 08. 2020**

**St. Mary's College (Autonomous)**  
(Re-accredited with A+ Grade by NAAC)  
Thoothukudi  
PG and Research Department of Zoology  
Organizes  
**INTERNATIONAL WEBINAR**  
on  
**MARINE BIOLOGY**  
Date: 11.08.2020  
Time: 9.50 a.m - 12 Noon  
**Chief Patron**  
Rev. Sr. Flora Mary  
Secretary  
St. Mary's College (Autonomous)  
Thoothukudi  
**Patron**  
Rev. Dr. Sr. A.S.J. Lucia Rose  
Principal  
St. Mary's College (Autonomous)  
Thoothukudi  
**Resource Persons**  
Session - 1  
Time: 10. a.m - 11. a.m IST  
Topic: Marine Gastropods  
Session - 2  
Time: 11. a.m - 12 Noon IST  
Topic: Medicines from Marine Mollusca  
**Dr. I. Jagadis**  
Principal Scientist  
& Scientist in Charge  
Tuticorin Research Station of CMFRI,  
Tuticorin  
**Prof. Kirsten Benkendorff**  
S.D. J. Nova I. Mag. Ph.D. B.Sc.,  
Director of National Marine Science Centre,  
School Environment Science and Engineering,  
Southern Cross University,  
Lismore, Australia  
**CONTACT:**  
zoologywebinar26@gmail.com  
No Registration Fee  
E-Certificate will be provided

An International Webinar on Marine Biology was organized by the PG and Research Department of Zoology on online mode on 11.08.2020.



Dr. I Jagadis, Principal Scientist and Scientist -In-charge, Tuticorin Research Station of CMFRI, Tuticorin and



Prof. Kirsten Benkendorff, Director, National Marine Science Centre, School Environment Science and Engineering, Southern Cross University, Lismore, Australia were the resource persons. Around 200 students and faculty from various colleges participated in the webinar.

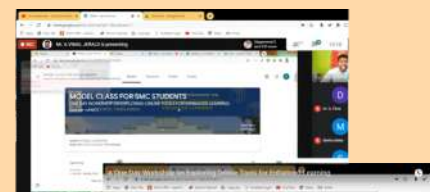
Dr. I Jagadis gave a lecture on breeding of gastropods and its commercial importance.

Prof. Kirsten Benkendorff delivered a lecture on Medicines from Marine molluscs. She gave an overview of harnessing molluscs for pharmaceutical purpose.

**One Day Workshop on  
Exploring Online Tools  
for Enhanced Learning  
12.08.2020**



The School of Biological Sciences organised a one-day online workshop on exploring online tools for enhanced learning on 12th September 2020, sponsored by DBT, STAR College Scheme, New Delhi, for the UG students (225) of the School of



Biological Sciences. Mr. Vimal Jerald, Assistant Professor of Computer Science, St. Joseph's College (Autonomous), Tiruchirappalli was the resource person. The workshop was organized by Rev. Sr. Dr. Arockia Jenecius Alphonse, Overall Coordinator and Member Secretary, STAR College Scheme and the Heads of the Department of School of Biological Sciences. The workshop began with the prayer song. The resource person emphasised the need and necessity for learning online tools at this pandemic situation. Then the students were asked to join into the Google classrooms created by the resource person. Students were instructed on how to join the Google classroom, submit assignments, quiz, and how to upload scanned images, convert them into pdf and download materials from the Google classroom. Students actively participated in the workshop.

12.10.2020 A guest lecture on  
**“Invertebrates”**  
 – An overview

A guest lecture on “Invertebrates – An overview” sponsored by DBT, Govt. of India, New Delhi under STAR college programme was organized by the department of Zoology, St. Mary's College (Autonomous) Thoothukudi on 12th October 2020 through online portal google meet. Dr. Mary Metilda Bai, Head and Assistant Professor, Dept. of Zoology, Holy Cross College (Autonomous) Thoothukudi was the resource person. The lecture began at 10.40 am with a prayer song. Dr. P.J. Joslin Associate Professor, Dept. of Zoology, introduced the resource person and welcomed the gathering. 44 students from I B.Sc Zoology and 8 staff members attended the lecture. The resource person in her lecture highlighted the classification of invertebrates and characteristic features of each Phylum with colourful pictures and videos. Students have found this lecture informative and useful. Ms.Karthika Eswari of I B.Sc Zoology proposed the vote of thanks. The meeting came to an end with the college anthem.



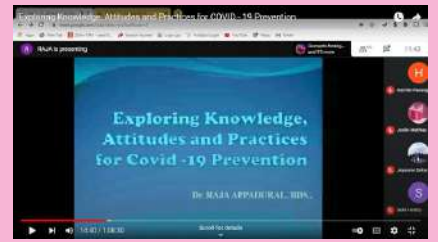
The workshop was conducted by Dr. T. Jebasingh, Assistant Professor, Department of Plant Sciences, School of Biological Sciences, Madurai Kamaraj University. Dr. T. Jebasingh explained and gave a lecture on the



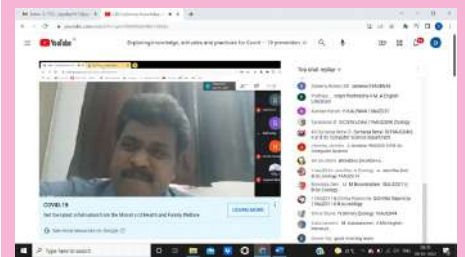
principles behind the basic techniques of Biotechnology. The students were given training on the basic techniques of biotechnology – Plasmid isolation, Agarose gel



electrophoresis and PCR. Live demonstration of the techniques was given to the students by the resource person and his team members through Google Meet. The students were also taken for a virtual tour of the laboratory facilities of School of Biological Sciences, Madurai Kamaraj University. They were shown many highthroughput instrumentation facilities. A total of 86 students participated in the workshop.



21.10.2020 as a part of STAR Programme sponsored by DBT, New Delhi. Dr. A. Raja, Dentist and Maxillofacial surgeon, Eshvar



Dental Clinic, Coimbatore delivered the lecture on various aspects of the pandemic Covid- 19. He deliberated the origin and structure of Corona virus. The talk inculcates deep insight into the diagnostic procedures of Covid – 19. His speech elaborates the



various domains of this current pandemic situation on social distancing and hand washing etc. He also expounded how to wear, take off and dispose masks. His speech explicated the age and gender variations observed in the Corona virus infection. He also elucidated the pivotal role of nutrition in the prevention of Corona virus. He finally intricated various types of treatment involved in preventing Corona virus.

**Workshop on Techniques in Biological Sciences**

17.10.2020



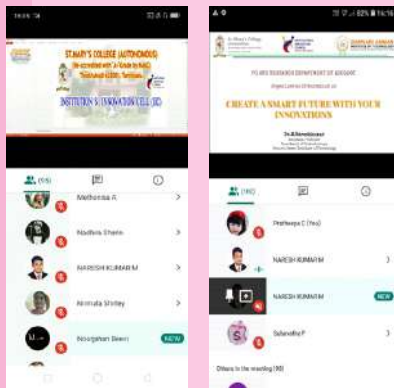
A workshop was organized by the Department of Zoology, as a part of

STAR College Programme of St. Mary's College (Autonomous) through Google Meet on 17.10.2020 between 10 am-4.30 pm. The workshop was organized for undergraduate students of Botany, Zoology, Physics and Chemistry who have biotechnology in their syllabus.

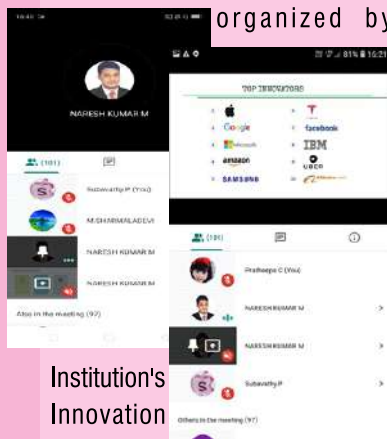
**Invited talk on the topic Exploring knowledge, attitudes and practices for Covid – 19 prevention**  
 21.10.2020

A Invited talk on the topic Exploring knowledge, attitudes and practices for Covid – 19 prevention was held on

**Orientation session**  
**Create a Smart Future with**  
**Your Innovations**  
**21. 12. 2020**



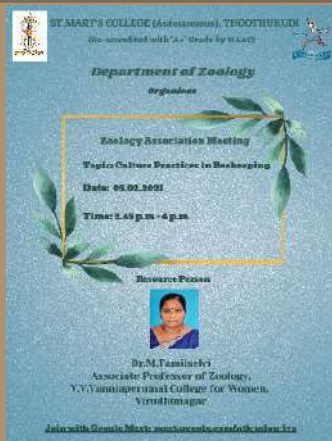
An orientation session on “Create a Smart Future with Your Innovations” was jointly organized by



Institution's  
 Innovation  
 Council

and PG and Research Department of Zoology on 21st December 2020 through online platform. Dr. M. Nareshkumar, Assistant Professor, Department of Biotechnology, Bannari Amman Institute of Technology, Sathyamangalam served as the resource person. The success stories of top innovators in the world was highly motivating and instilled the spirit of creative thinking. This orientation programme has opened the doors to get out of the box and pursue inspiring innovation. Around 200 faculty members and students were benefited out through this orientation programme.

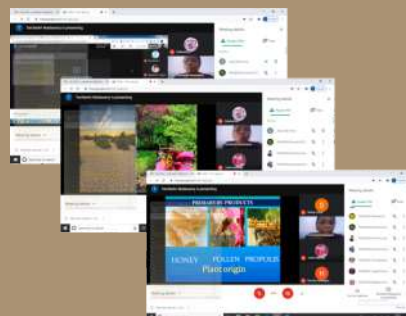
**Zoology Association**  
**'Culture Practices in Bee Keeping'**  
**5.02.2021**



The meeting of the Zoology Association was held on 05-02-2021 through Google platform. Dr. M. Tamilselvi, Associate Professor of Zoology, V.V. Vanniam Perumal College for Women Virudhunagar served as the resource



person. Dr. Tamilselvi on her lecture 'Culture Practices in Bee Keeping' focused on the

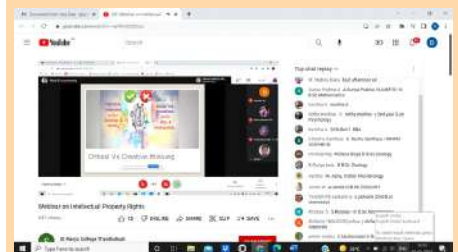


byproducts like primary and secondary products from apiary and the scope and importance of learning Apiculture. N. Gayathri of II B, Sc Zoology proposed the vote of thanks and the meeting came to an end with the college anthem.

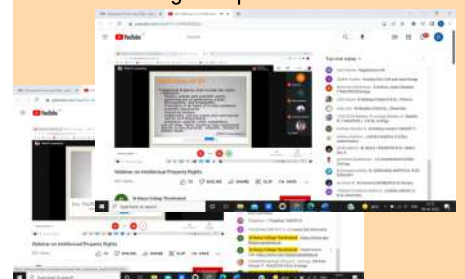
**Webinar on**  
**Intellectual Property Rights**  
**18.02.2021**



A webinar on “Intellectual Property Rights” was organized by Marian STAR centre, Department of Zoology, St. Mary's College (Autonomous), Thoothukudi on 18th February 2021 through virtual platform. Dr. Balaji Devarajan Head, Center for IPR, KPR



Institute of Engineering and Technology, Coimbatore was the resource person. Through his simple language, he explained the basic concepts of intelligence, critical and creative thinking. He made the students to realize that innovations are made out of simple thinking and not out of rare and complicated ideas. He also gave a deeper insight on the various inclusions of Intellectual Property Rights. He cited simple examples such as that of the discovery of sticky notes by Arthur Fry which is a very simple yet creative innovation. He also shared his own innovation on aero engines where he created a turbo jet for fuel consumption. He clearly explained the simple concept behind his innovation, the various procedures on filing the patent and finally the certification. Staff members and students from STAR departments (108) and from NON STAR departments (108) participated in the webinar. The webinar proved to be resourceful to the students as it inspired them that greater things could be achieved through simple observation.



## Workshop on Clinical Laboratory Equipments Department of Zoology and Chemistry 3.03. 2021

The Marian STAR Centre, Department of Chemistry and Zoology jointly organised a Workshop on "Clinical Laboratory Equipments" on 3rd March, 2021, sponsored by DBT, College Scheme, New Delhi. Mr.T.Kombiah, Proprietor, Thanshri Diagnostics, Tirunelveli was the resource person. He explained clearly step by step the method of determination of



blood parameters like sugar, cholesterol, protein, albumin, urea and creatine using semi autoanalyser in the Chemistry

department. The next session took place in zoology department

laboratory where he explained the determination of pH, nitrite, specific gravity,



ascorbic acid, glucose, bilirubin, urobilinogen, ketone, leucocyte, protein, creatinine, calcium and microalbumin using urine analyser, then counting blood cells using hemocytometer,



Innovation Council, St. Mary's College (Autonomous), Thoothukudi on 19.03.2021 in the Star Hall. Dr. Noble Morrison, Retired Scientist D, Research Extension Centre, Central Silk Board, Kolar, Karnataka was the



## Hands-on Training on Sericulture 19.03.2021



'A Hands-on training on Sericulture' and Inaugural Function of the Mulberry Sericulture Unit was organized by the Marian Research Forum in collaboration with PG and Research Department of Zoology and Institution's



chief guest for the inaugural function and the resource person for the training. In this training session, the resource person highlighted the need for establishing sericulture units in India. He gave a clear idea about the types of silk worm and the techniques of rearing silk worm. The training was followed by planting of Mulberry saplings in the college ground. 110 undergraduate and postgraduate students from the Department of Zoology were benefitted through this training session.

haemoglobin content in the blood using hemoglobinometer and blood pressure using sphygmomanometer. One hundred and forty two participants were benefitted through this programme.

## Faculty Training Programme Computational Biology

06.05.2021 to 11.05.2021

A Faculty Training Programme on



'Computational Biology' was organized by the PG and Research Department of Zoology, St.Mary's College (Autonomous), Thoothukudi in collaboration with the Department of Zoology, Rani Anna Government College for Women, Tirunelveli as a part of the DBT STAR College Program of St. Mary's College (Autonomous), Thoothukudi. The Faculty training program was conducted for five days through Zoom meet platform.

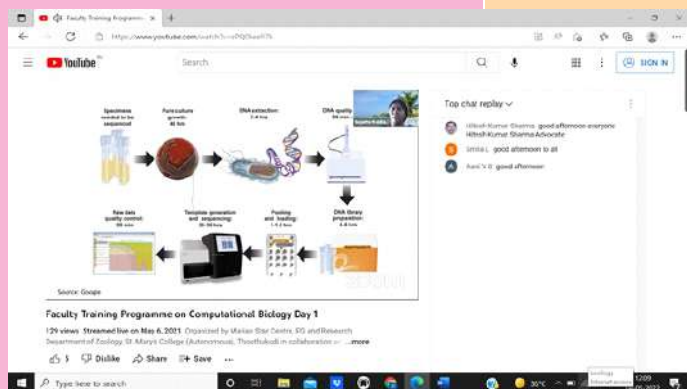


The FTP included invited lecture sessions where eminent faculty in the field of bioinformatics were the resource persons. The lecture sessions were followed by hands on training sessions on Computational Biology.



Dr. A. Mahalakshmi, Assistant Professor of Zoology, Lady Doak College, Madurai was the trainer for the whole programme. The programme started with a welcome note by Dr. Hermin Pasangha, Head, Department of Zoology, St. Mary's College (Autonomous), Thoothukudi.

Rev. Dr. Sr. A.S.J. Lucia Rose, Principal, St. Mary's College, felicitated the workshop with a brief introduction of the programme. On the first day of the programme, Dr. K. Sujatha, Assistant Professor of Zoology, Lady Doak College, Madurai, gave



a lecture on 'Effective Usage of Insilico Tools in Experimental Research'. She listed the available computational tools and their effective use in the field of research. Dr. Mahalakshmi introduced the basics of Computational Biology – Public Biological databases, Nucleotide sequence databases, Genbank, Sequence submission, Uniprot, Derived databases, Sequence Retrieval tools, Protein databases. On the second day

Dr. A. Mahalakshmi delivered a lecture on 'Current Trends and Application of Bioinformatics in Life Science Research'. Her lecture expounded the role of bioinformatics centres in

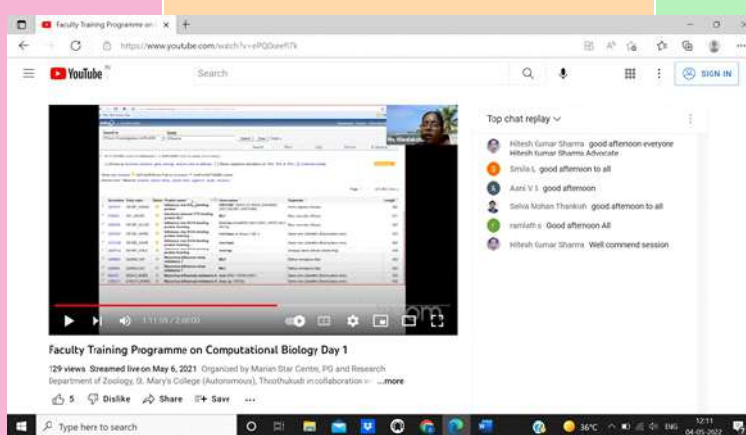
making the data available to the scientific community. Dr. Babylakshmi Muthusamy, Research Scientist, Institute of



Bioinformatics, Bangalore was the invited speaker on the third day. The guest of honour delivered a lecture on 'Computational Approaches for Microbial

Diagnostics' in which she introduced the Next generation sequencing technology to the participants and explained the various platforms of NGS - PacBio, Nanopore, etc.

In the hands on training session, Dr. Mahalakshmi trained the participants in Database search and sequence comparison. Dr. Ilakkiam, Assistant Professor of Biotechnology, Mother Teresa Women's University, Kodaikanal was the resource person on the IV day and she delivered a lecture on "Whole Genome Sequencing – Assembly and Annotation of Microbial Genomes". She



deliberated whole genome sequencing, characteristic features and graphical circular map of *P. aeruginosa* PGPR2 and explained the whole genome based phylogeny of *P. aeruginosa* PGPR2. She highlighted the advantages of CV TREE tool, CRISPR FINDER, Panseq, Genscan and MIRA Assembler. Hands on training session was conducted by Dr. Mahalakshmi, on the topic "An Introduction To Protein Sequences and Modeling". Dr. J. Sridhar, Assistant Professor and Head i/c. Department of Biotechnology (DDE), Madurai Kamaraj University, Madurai was the resource person on the V day and he delivered a talk on 'High Throughput Data Analysis Using Bioinformatics Tools'. He highlighted the importance of computational representation of biological data, traditional applications of Bioinformatics, High throughput Biology and Data, Files and formats used in data processing and computational tools for data analysis in OMICS era. On that day Dr. Mahalakshmi gave hands on training on molecular docking – AutoDock tools, PDB and RCSB PDB. She clarified the doubts raised by the participants and offered to help the faculty in this field in future also.

Dr. Victoria Thangam, Associate Professor and Head, Department of Zoology, Rani Anna Government College for Women, Tirunelveli, delivered the vote of thanks. 83 faculty members from different colleges participated in the programme. All the participants were given participation certificate.

## Publications 20-21 by Faculty Members

- Dr. P.J.Joslin had contributed a book chapter 'Effects of Climate change on marine organisms' in the Book Climate Change: Impact on Environment. (ISBN: 978-81-947114-0-7)
- Dr. S.Mary Baptista Janet had published an article "Molecular Characterization of Protein and Antioxidant Capacity of *Turbo brunneus R.*, *Cypraea annulus L.* and *Babylonia spirata L*" in the International Journal of Pharmaceutical Sciences and Research Journal.
- Dr. Sr. C. Shibana, has published a book 'Environmental Studies', Archers and Elevators Publishing House, Bangalore. *It is a text- book focusing* on significant basics of forest, water, minerals, aspects of biodiversity, renewable and non-renewable resources, environmental pollution, environmental protection and management. It has adequate depth to make it appropriate as a textbook for students of different courses including humanities, commerce, science and engineering.
- Dr. Jemma Hermelin Jesy Diaz had published an article 'GC-MS Analysis and Anti-inflammatory Activity of *Murex tribulus*' in the International Journal of Pharmaceutical Sciences and Research Journal.
- Dr. Jemma Hermelin Jesy Diaz had published an article 'Molecular Characterization of Protein and Antioxidant Capacity of *Turbo brunneus R.* *Cypraea annulus L.* and *Babylonia spirata L.*' in the Materials Today: Proceedings Elsevier Journal.
- Dr. S. Selvi had contributed a chapter 'Plants and Climate change- A paradigm shift' in the Book Climate Change: Impact on Environment. (ISBN: 978-81-947114-0-7).
- Dr. R. Sri Priya had contributed a chapter 'Plants and Climate change- A paradigm shift' in the Book Climate Change: Impact on Environment. (ISBN: 978-81-947114-0-7).
- Dr. M.Paripooranaselvi had contributed a chapter 'Effects of Climate change on marine organisms' in the Book Climate Change: Impact on Environment. (ISBN: 978-81-947114-0-7)
- Dr. M.Paripooranaselvi had contributed a chapter 'Climate Change: Risks and Rescue of Marine Organisms' in the Book Climate Change: Impact on Environment. (ISBN: 978-81-947114-0-7)
- Dr. P. Subavathy had published an article 'Molecular Phylogenetic Analysis of *Turbo brunneus* (R.1798), *Cypraea annulus* (L.1758) and *Babylonia spirata* (L.1758)' in the Advances in Zoology and Botany Journal.
- Dr. P. Subavathy had published an article 'Molecular Characterization of Protein and Antioxidant Capacity of *Turbo brunneus R.* *Cypraea annulus L.* and *Babylonia spirata L*' in the International Journal of Pharmaceutical Sciences and Research.
- Dr. P. Subavathy had published an article 'Histological Investigation of the Digestive System and SEM Study of Radula in *Fusinus nicobaricus* (Gastropoda: Fascioliariidae)' in the Indian Journal of Animal Research.

## Massive Open Online Course 2020-2021

Course Name:

Wildlife Ecology and Essentials of Biomolecules :  
Nucleic Acids and Peptides

NPTEL

# Congratulations

INTERCOLLEGIATE TOURNAMENT  
Weight Lifting III Prize

T.D.M.N.S. College, Kallikulam  
27.03.2021 To 28.03.2021



**ANANTHASELVI S**  
I M.Sc., Zoology  
(93%) Elite + Gold



**RAJA RAJESWARI R**  
I M.Sc., Zoology  
(99%) Elite + Gold



**SWETHA R**  
I M.Sc., Zoology  
(99%) Elite + Gold



**M.JENOVIN**  
II B.Sc., Zoology