



Mary Matha Arts & Science College

Re-accredited by NAAC with B++ Grade, CGPA 2.85 (III Cycle)

Mananthavady, Wayanad Pin: 670645, India.

Education for total liberation

Research Department of Zoology

COLLABORATION AND LINKAGE WITH OTHER INSTITUTION/ORGANIZATION

2022-2023

Sl. No	Title of Collaboration activity	Collaboration Agency	Name of Participants	Year of Collaboration
1.	Research	Nautica Environmental Associates LLC UAE	Dr Sanu VF & Dr Rukhsana K	2022-24
2.	Research & Field Activities	Bulk Water Supply Scheme – Jananidhi Pulpally Grama Panchayath	Dept. of Zoology & BWSS Pulpally	2022-24
3.	Research & Student Exchange	Nirmalagiri College Kannur	Dept. of Zoology Mary Matha College & Dept. of Zoology Nirmalagiri College	2022-24
4.	Research & Student Exchange	Gurudev Arts & Science College Kannur	Dept. of Zoology Mary Matha College & Dept. of Chemistry Gurudev College	2022-24

HOD

1. Training Program for Taxonomic Identification of Zooplankton Copepods

Date: 3rd August to 5th August 2022

Location: Department of Zoology

Participant:

Dr. Rukhsana K, Environmental Engineer, Nautica Environmental Associates LLC, Abu Dhabi, UAE

Programme Co-Ordinator: Dr. Sanu V F, Assistant Professor, Department of Zoology

Poster:



Objective:

The objective of the training program was to enhance Dr. Rukhsana K's taxonomic identification skills for zooplankton copepods found in the Arabian Sea and Bay of Bengal. The program aimed to equip her with the necessary knowledge and expertise to conduct taxonomic studies of copepod communities in India and UAE, fostering future collaborations between the two countries.

Activities:

Introduction to Copepods: The training program began with a comprehensive overview of copepods, their ecological importance, and their role in marine ecosystems.

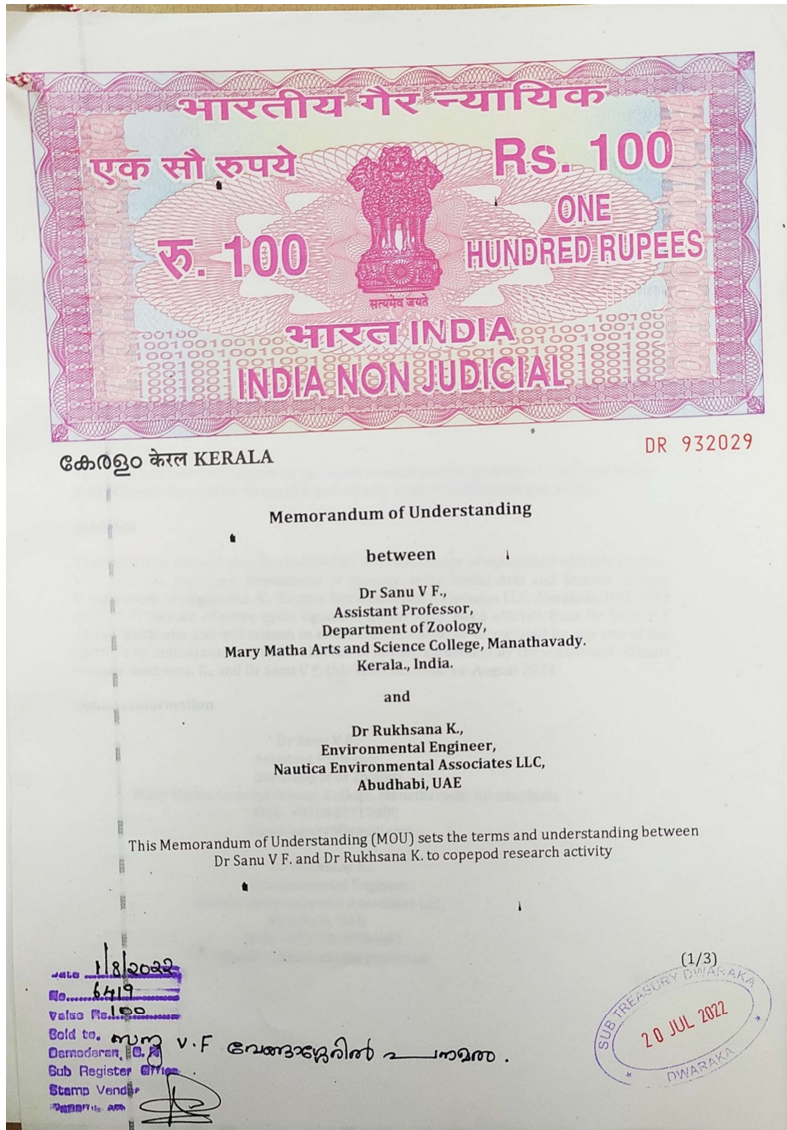
Taxonomy and Morphology: Dr. Sanu V F provided detailed lectures on the taxonomy and morphology of zooplankton copepods, focusing on key identification characteristics and classification techniques.

Practical Training: Dr. Rukhsana K received hands-on training in the laboratory, where she learned how to prepare and examine copepod samples under microscopes. She was guided in identifying copepod species based on morphological features and taxonomic keys.

Data Analysis and Reporting: Dr. Sanu V F provided guidance on data analysis techniques specific to copepod studies, including statistical analysis and interpretation of results. Dr. Rukhsana K was trained to prepare comprehensive reports based on her findings.

MOU and Future Collaborations:

During the training program, Dr. Rukhsana K and Dr. Sanu V F signed a Memorandum of Understanding (MOU) to establish a collaborative partnership between Nautica Environmental Associates LLC and the Department of Zoology. The MOU aims to facilitate joint research projects, exchange of knowledge and expertise, and the sharing of resources related to the taxonomic studies of copepod communities in both India and UAE.





2. Free Water quality Testing Camp In association with NSS & BWSS Pulpally Grama Panchayath.

Event Coordinator: Dr Sanu V F, Asst. Professor, Dept of Zoology

Date : 26 to 28 December 2022

Time : 10 am to 4pm

Venue/Platform: Govt. High School Neervaram

Report:

In collaboration with the National Service Scheme (NSS) and BWSS Jananidhi, Pulpally Grama Panchayath, the Department of Zoology organized a free drinking water quality testing camp for the villagers of Neervaram. The camp, held from December 26 to 28, aimed to assess the quality of drinking water sources in the village. This report presents the findings of the analysis conducted on 37 water samples by third-year Zoology students.

The programme was inaugurated by Mr. Aneesh K, Project Manager, BWSS Pulpally Panchayath. The collected water samples were subjected to comprehensive laboratory testing using appropriate techniques and equipment. The parameters analyzed included pH level, total dissolved solids (TDS), presence of heavy metals, microbial contamination, and the presence of chemical contaminants.

Photographs



ഓപ്പൺ ന്യൂസ്പേർ
WAYANAD

2022 DEC 26
തീർവാറം 26

ജലപരിശോധന ക്യാമ്പ് ആരംഭിച്ചു

തീർവാറം: നാഷണൽ സർവീസ് സ്കീം സപ്തദിന ക്യാമ്പിന് ഭാഗമായി മാതൃകാപാഠശാലയിൽ ജലപരിശോധന ക്യാമ്പിന് ആരംഭം. സെന്റർ കോളേജും പൂർണ്ണ ടിച്ച് പ്രദാനം ചെയ്ത ജലപരിശോധന ക്യാമ്പിന് തീർവാറം ഗവ. ഹയർ സെക്കണ്ടറി സ്കൂളിൽ ആരംഭിച്ചു. ഡിസംബർ 26 മുതൽ 28 വരെ നടക്കുന്ന പരിശോധനയിൽ സമീപ പ്രദേശങ്ങളിലെ മുഴുവൻ കുട്ടികളും സോഴ്സിംഗിലും വെള്ളം സാജനമായി പരിശോധിക്കും. ജലപരിശോധന ക്യാമ്പിന് പ്രൊജക്ട് മാനേജർ അനീഷ് കെ തോമസ് പരിശോധന ക്യാമ്പ് ഉദ്ഘാടനം ചെയ്തു.

പുൽപ്പള്ളി ഗ്രാമപഞ്ചായത്ത്
ബൾക്ക് വാട്ടർ സപ്ലൈ സ്കീം

 താഴെപ്പറഞ്ഞിരിക്കുന്നവർക്ക് ഓഫീസ്: 66258 240 777, 77172 33 00 10, 9929 35 98 94
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 web : www.bwsppullygp.com
 SLEC - Reg. No. WYD/CA/348/2014 Under Societies Reg. Act XXX-1860

01/12/2022

CERTIFICATE OF COLLABORATION

This is to certify that the Department of Zoology, Mary Matha Arts & Science College Wayanad is actively collaborating with the our institution in various academic and research activities for the years 1st December 2022 to 31st March 2024.

1. Undertaking research projects.
3. Knowledge sharing through staff exchange.
4. conducting collaborative field research Activities
5. Conducting capacity building workshops.

പ്രൊഫ. ഡോ. അനീഷ്
 ബൾക്ക് വാട്ടർ സപ്ലൈ സ്കീം
 പുൽപ്പള്ളി ഗ്രാമപഞ്ചായത്ത്
 വയനാട്, പിൻ: 673579

3. Study Title: *Diversity and community structure of Zooplankton in Suheli Par, a coral Atoll in the Union Territory of Lakshadweep, India*

Study Type: MSc Dissertation work as part of research collaboration and student exchange programme with Nirmalagiri college and Dept. of Zoology, Mary Matha Arts & Science College Mananthavady

Student Name: Ms. Sweetly Sunder, VIth Sem. MSc Zoology Student, Nirmalagiri College, Kuthuparamba

Supervising teacher: Dr Sanu VF, Asst. Professor, Dept. of Zoology, Mary Matha Arts & Science College Mananthavady

Abstract

Zooplankton plays a vital role in structuring and regulating the coastal marine food web and also in the functioning of the biological pump. As their community structure and function are highly prone to changes in the environmental conditions regular monitoring of their distribution as well as their interactions with various physicochemical parameters is inevitable for the sustainable management of the ecosystem.

This study provides a first time observations on the mesozooplankton distribution and community composition from Suheli par Atoll, Lakshadweep archipelago. The volume of water filtered from lagoon was 123 m³ and from outer lagoon was 131 m³. Total zooplankton density ranged from 37 to 53 ind./m³ and total biomass of 0.03ml/m³ in both the stations. Fifteen groups of holoplankton and seven different types of meroplankton were recorded from the study area. Holoplankton becomes the significant share to the total zooplankton particularly copepods contributing a dominant share (23% in both the stations). Amphipods contributed second next to copepods (15% in lagoon and 14% in outer reef) followed by fish larvae and eggs (11% in both the stations).

The observed zooplankton diversity in Suhelipar Atoll highlights the presence of a relatively rich and diverse community. The presence of copepods, amphipods, and larval stages of marine invertebrates indicates a complex and interconnected food web within the region. However, it is important to note that this study represents a snapshot of the zooplankton community and does not provide temporal data or long-term trends. The differences in zooplankton density between the two sampling stations could be attributed to local variations in environmental conditions, including nutrient availability, temperature, and

current patterns. Continued monitoring efforts are necessary to assess the long-term dynamics and potential impacts on zooplankton populations in Suhelipar Atoll, which will aid in the conservation and management of this valuable marine ecosystem.

NIRMALAGIRI COLLEGE, KUTHUPARAMBU, KANNUR

Re-accredited with NAAC 'A' grade

DEPARTMENT OF ZOOLOGY

Dr. Jimly C. Jacob
Assistant Professor and Head

Nirmalagiri P.O.,
Kannur District, 670701
Email: zoologynirmalagiri@gmail.com
Date: 10-12-2022

CERTIFICATE OF COLLABORATION

This is to certify that the Department of Zoology, Mary Matha Arts and Science College, Mananthavady, is actively collaborating with Department of Zoology of our institution in supervising post graduate students for the academic year 2022-23.



Jimly C. Jacob
Assistant Professor
Department of Zoology
Nirmalagiri College
Kuthuparamba-670701

4. Study Title: *Water Quality Status of Major River Basins of Wayanad with Special Reference to Microplastics*

Study Type: MSc Dissertation work as part of research collaboration with Dept. of Zoology, Mary Matha Arts & Science College Mananthavady and Gurudev Arts & Science College Payyannur

Student Name: Ms. Alinda Shaji, VIth Sem. Msc Chemistry Student, Gurudev Arts & Science College, Payyannur

Supervising teacher: Dr Sanu VF, Asst. Professor, Dept. of Zoology, Mary Matha Arts & Science College Mananthavady

Report:

This report presents the findings of an extensive study conducted by Dr. Sanu V F, Assistant Professor, Dept. of Zoology and Ms. Alinda Shaji, MSc Chemistry student of Gurudev Arts & Science College, Payyannur. The study aimed to assess the water quality status of major river basins in Wayanad, Kerala, with a particular focus on the presence of microplastics. Ten stations along the river basins were selected for sampling and analysis. The study employed various physical, chemical parameters to evaluate water quality, along with specific tests for microplastic identification and quantification. The results provide valuable insights into the contamination levels and potential risks associated with microplastics in the rivers of Wayanad.

Photographs

