

# **BHOOMITHRA SENA CLUB (BMC-155/KLM/14/11)**

**K.S.M.D.B.College, Sasthamkotta, Kollam**

## **PROGRAMS CONDUCTED DURING 2021-2022**

**Coordinator \_Ms Lekshmy Sreekumar**

**Members\_Dr Geeta Krishnan Nair ,Dr Sushant S Bhat, DrAthman**

### **PROGRAMS**

#### **1. PHYSICOCHEMICAL AND MICROBIOLOGICAL ANALYSIS OF WATER QUALITY OF SASTHAMKOTTA LAKE AND WELL WATER SAMPLES OF SASTHAMKOTTA PANCHAYAT.**

With the involvement of members of BMC club , physicochemical and microbiological analysis of water quality of Sasthamkotta lake and well water samples of Sasthamkotta Panchayat was assessed . It is included in the Ramsar list of wetlands of international importance. It is the drinking water source for about 700000 people living in Kollam District and also one of the major tourist attraction places.

Water pollution caused by fecal contamination is a serious problem due to the potential for contracting diseases from pathogens. The presence of pathogens is determined with indirect evidence by testing for an "indicator" organism such as coliform bacteria. Coliforms are relatively easy to identify, are usually present in larger numbers than more dangerous pathogens. As a result, testing for coliform bacteria can be a reasonable indication of whether other pathogenic bacteria are present or not.

Drinking water and well water samples from different localities of the Sasthamkotta panchayath and different parts of lake was analysed for coliform testing .Altogether 20 samples were analysed for preliminary screening. Those samples tested positive were further subjected to physicochemical and microbiological analysis in CEPCI (Cashew Export Promotion Council Of India) for testing total coliforms and the two subgroups thermotolerant faecal coliforms and E.Coli. The results indicated that the water

tested was contaminated with the fecal material of man or other animals. The basin of lake was contaminated by coliform which may be due to contamination from ground water percolated from nearby houses. Among the 20 samples analysed, the presence of coliform was detected in the samples collected from private wells and samples collected near the lake side and canal areas. Seven samples were tested positive. Those samples which were found positive were further subjected to detailed microbiological analysis for thermotolerant and fecal coliforms in CEPCI (cashew export promotion council of India) technical division and Water testing division, Dept of Environmental Sciences, University of Kerala. MPN was calculated. Test method used was S1622-1981 (reaffirmed 2003) Edn. 2.4 (2003-2005).

The public well samples showed a high level of 430/100ml. Presence of fecal contamination is an indicator that a potential health risk exists for individuals exposed to this water. Fecal coliform bacteria may occur in ambient water as a result of the overflow of domestic sewage or nonpoint sources of human and animal waste.

## **PHYSICO CHEMICAL ANALYSIS**



## PHYSICO CHEMICAL ANALYSIS





## **OUR TEAM WITH THE COORDINATOR**

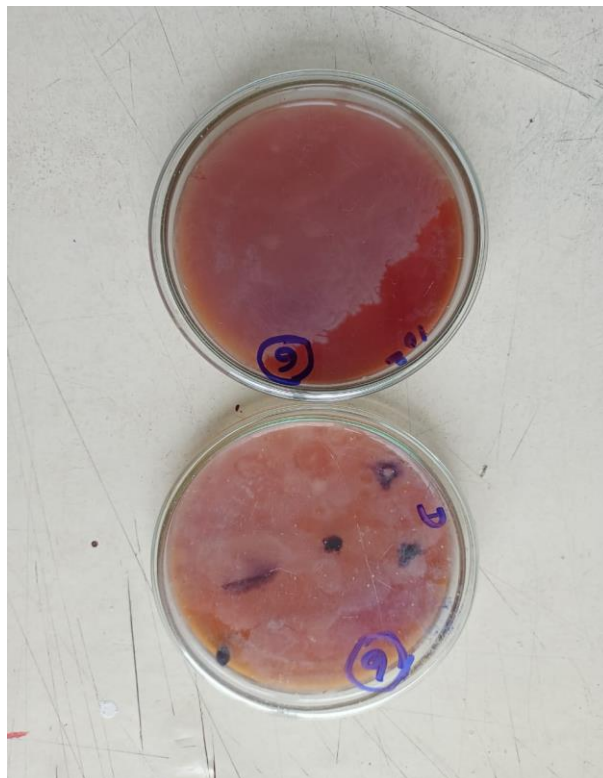


## **WATER COLLECTION**





## **MICROBIOLOGICAL ANALYSIS**





## 2 AWARENESS CAMPAIGN

Awareness campaign were conducted among common people to install proper waste disposal methods and advised them to increase the effectiveness of various management strategies to bring back the originality of the lake. Open defecation should be totally avoided .

In the water samples collected from some of private wells, E.coli level was very high of 220/100 ml and samples from public well revealed 430?100 ml. Thus the people around the locality were advised to take proper measures to solve the coliform problem. It can sometimes be solved with relatively simple actions like chlorination, boiling, adding disinfectants etc.

### 3.OBSERVED WORLD ENVIRONMENT DAY

Bhoomitra sena club in association with Department of Botany jointly organised an intercollegiate poster making and video making competition on the topic- **“Recreate, Reimagine, Restore -Ecosystem Restorations” in memory of Sugatha Kumari teacher** . Students from different colleges participated. Msc Zoology students of Sree Narayana College ,2021-22, Kollam bagged the first prize and won cash award of Rs 1000/ and Memento .Principal Dr Beena .B presented the awards.





**Department of Botany**  
**KSMDB College, Sasthamcotta**  
*in association with*  
**Bhoomitra Sena Club (BMC)**  
*presents*

# **Inter Collegiate Short Video Contest**

**in memory of late Sugathakumari Teacher**

**Theme:**  
**Restore, Recreate, Re-Imagine**  
**"Ecosystem Restorations "**



**Event Coordinators**  
**Dr. P. Geethakrishnan Nair**  
*( HOD Dept. of Botany )*  
**Lekshmy Sreekumar**  
*( Asst. Prof. Dept. of Botany )*

**Send your entries through telegram**



**8547227225**

#### 4. OBSERVED WORLD WETLAND DAY - 2 ND FEBRUARY

For highlighting the importance of actions that ensure that wetlands are conserved and sustainably used, World wetlands day was celebrated .



#### INTERCOLLEGIATE HAIKU WRITING COMPETITION

**Celebrating World Wetlands Day 02- February -2022**  
*Canva* **BHOOMITRASENA CLUB** *and*  
&  
**DEPARTMENT OF BOTANY**  
**K.S.M.D.B COLLEGE SASTHAMCOTTA**  
**JOINTLY ORGANISE A HAIKU WRITING COMPETITION**  
On the theme : "Wetlands"

**CALL FOR ENTRIES!!!**


**LESS IS MORE TRY IT OUT!!**

**\* ENTRIES OPEN TO ALL...**

**\* PARTICIPATE AND WIN CASH AWARDS**

**COORDINATORS,**  
Dr. P. Geethakrishnan Nair  
Ms. Lekshmi. S. Kumar

submission deadline  
28th February 2022

Send your entries through Telegram  **85472 27225**



## 5.FIELD VISIT

Sasthamkotta lake which is known as the the Queen of Lakes is located **29 km from Kollam**. It is the largest freshwater lake in Kerala and has always been a centre of tourist activity .A field trip was conducted to the Ramsar site - Sasthamkotta lake basin.

Resident troupes of monkeys are sighted on the banks in large numbers. Decent number of resident troupes of monkeys and insects like butterflies, odonates and hymenopterans are part of this lake. The Common Teal or dabbling duck is the smallest migratory bird found in the lake. Some of the vulnerable, endangered and critically endangered species reported by WWF in the lake comprises of *Puntius ticto punctatus*, *Horabagrus brachysoma* and *Parambassis thomassi*.

The list of aqua fauna in the lake is long which includes 27 species of freshwater fishes like pearl spot and catfish, two genera of prawns, 21 species of herrings and sardines of the family Clupeidae etc.



Dr Geethakrishnan Nair,HOD ,Department of Botany and Ms.Lekshmy Sreekumar (FIC,BMC) addressing the students on the importance of the flora of lake.

## **6.INTERACTION WITH THE AGRICULTURIST CHERUVAYAL RAMAN**

As a part of promoting awareness to the students ,an online interview was conducted with the famous tribal farmer Cheruvayal Raman on the topic biodiversity conservation and organic farming. The interview published in Mathrubhumi Online News Portal was conducted by Ms.Lekshmy Sreekumar (FIC,BMC) .

Cheruvayal Raman, a native of Mananthavady in Wayanad and a member of the Kurichiya community, is an authority on paddy cultivation. He is the custodian of 53 varieties of paddy seeds that were traditionally used in Wayanad, and can identify and name every variety just by sight. He is recognised as a heritage paddy preserver by the Government of Kerala, and is a General Council member of the Agricultural University, Mannuthy. He was felicitated with the Genome Saviour Award 2016, instituted by Protection of Plant Varieties & Farmers' Rights Authority of India (PPVFRA), for his lifetime efforts in the conservation of traditional rice varieties. He upholds the legacy of traditional Kurichiya and Kuruma communities as a full-time paddy farmer



<https://archives.mathrubhumi.com/features/agriculture/cheruvayal-raman-the-guardian-of-indigenous-paddy-seeds-1.5389801>

## **7. PUBLISHED ARTICLES ON VARIOUS ENVIRONMENTALY SENSITIVE ISSUES .**

To raise the importance of Environmental Conservation among students and common people, the coordinator of BMC club has published several articles in leading news papers

1. <https://www.mathrubhumi.com/agriculture/features/large-scale-cultivation-of-oil-palm-in-india-and-its-impacts-1.6405842>
2. <https://archives.mathrubhumi.com/environment/biodiversity/great-indian-bustard-1.5867786>
3. <https://archives.mathrubhumi.com/features/agriculture/cheruvayal-raman-the-guardian-of-indigenous-paddy-seeds-1.5389801>
4. <https://youtu.be/x0jPf-GWLEo>

**07.11.2022**

**Lekshmy Sreekumar**  
**FIC, Bhoomithrasena club**  
**Mob: 8547227225**



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**Income and expenditure statement for 2021-2022**

<b>Particulars</b>	<b>Opening balance (Rs)</b>	<b>Expenditure (Rs.)</b>	<b>Balance (Rs.)</b>
For testing the microbiological and chemical analysis of water of Sasthamkotta lake	6966/-	3717/-	3249/-
For conducting intercollegiate video making competition in connection with environmental day celebration.	3249/-	1000/-	2249/-
Cash price – Rs 1000			
Memento	2249/-	350/-	1899/-
Brochure making – Rs 350	1899/-	300/-	1599/-
Total Expenditure		5367/-	

**Certified that, an expenditure of Rs.5367 (Rupees Five thousand three hundred and sixty seven only was incurred by the undersigned.)**

**07.11.2022**

**Lekshmy Sreekumar**

**FIC, Bhoomithrasena club**

**Mob: 8547227225**

From

Lekshmy Sreekumar  
Assistant Professor  
Department of Botany  
KSMDB college

To

The Principal  
KSMDB college

Respected Sir,

Kindly forward the report of activities of Bhoomitra Sena Club conducted in our college during the year 2021-2022 to the Director, Environment and Climate Change Directorate, Trivandrum.

Thanking you

Yours faithfully

Lekshmy Sreekumar

Sasthamkotta

7/11/2022