

# **COLLABORATIVE ACTIVITY FOR STUDENT PROJECT**

## **Department of Zoology**

As a part of a collaborative activity the students of the department went to Bharathapuzha River for collection of water samples from 15<sup>th</sup> to 20<sup>th</sup> January 2020.

In connection with a project with the Institute for Land Disaster Management, Government of Kerala, the Head of the Department of Geology and Environmental Science, Mr. Linto Alappat went to collect various samples to the Bharathapuzha River. The project was titled “River bank mapping and Sand Auditing of Bharathapuzha River was sanctioned under G.O. (Ms.) No. 730/2019/ RD dated 01-03-2019.

Three students and a staff of the Department of Zoology, Sacred Heart College were able to go with the team from Christ College to collect water samples from various points on the Bharathapuzha River. The names of the students who accompanied the team from Christ college were Shivani Dinesh, Aleena Devassy and Dalna Davis of II DC Zoology.

The samples collected were analysed for various water quality parameters in the field using a water quality probe. Samples were also taken to the laboratory for the analysis of BOD (Biological Oxygen Demand). All the results were included in an undergraduate project which was submitted by the students as a part of their final semester undergraduate program.

For the analysis of BOD, initial dissolved oxygen values were measured in the field using the water quality probe and samples were taken in glass bottles covered with a black cloth. Samples were kept in the incubator in the Zoology laboratory of SH College immediately upon arrival. Samples were kept in an incubator at 37°C for 5 days. Dissolved oxygen was measured again on the 5<sup>th</sup> day and B.O.D was calculated using these values.

Their study revealed that most of the values obtained in the study were above normal values indicating that these waters were polluted.

# Collaboration letter

CHRIST COLLEGE (AUTONOMOUS)

Irinjalakuda, Kerala, INDIA 680 125

(Government Aided Autonomous Institution, Affiliated to the University of Calicut; NAAC Re-accredited with 'A' Grade)



DEPARTMENT OF GEOLOGY AND ENVIRONMENTAL SCIENCE

Linto Alappat, M.Sc., M.Phil., Ph.D.  
Assistant Professor and Head.

[http://www.researchgate.net/profile/Linto\\_Alappat/](http://www.researchgate.net/profile/Linto_Alappat/)

07 June 2021

Irinjalakuda

## TO WHOM IT MAY CONCERN

Dear Sir,

**Sub: Letter of collaboration between Department of Geology and Environmental Science, Christ College and Department of Zoology, Sacred Heart College, Chalakudy- reg.**

The Department of Geology and Environmental Science of this college and the Department of Zoology, Sacred Heart College have collaborated for field survey for the past two years.

The staff as well as students accompanied us on a field visit in connection with the Institute for Land Disaster Management, Government of Kerala sanctioned project on River Bank Mapping and Sand Auditing of Bharathapuzha River (G.O.(Ms.) No. 730/ 2019/ RD dated 01-03-2019). They had collected water samples along the Bharathapuzha River as a part of their project in undergraduate studies to measure various water quality parameters and measure the level of pollution using BOD studies. They provided us with water quality probe for analysis of water in the field and an anemometer for the measurement of wind speed in different locations.

Thank you.

Yours sincerely

(Linto Alappat)

Dr. LINTO ALAPPAT, M.Phil., Ph.D.  
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**Students measuring physical parameters in the water samples collected.**

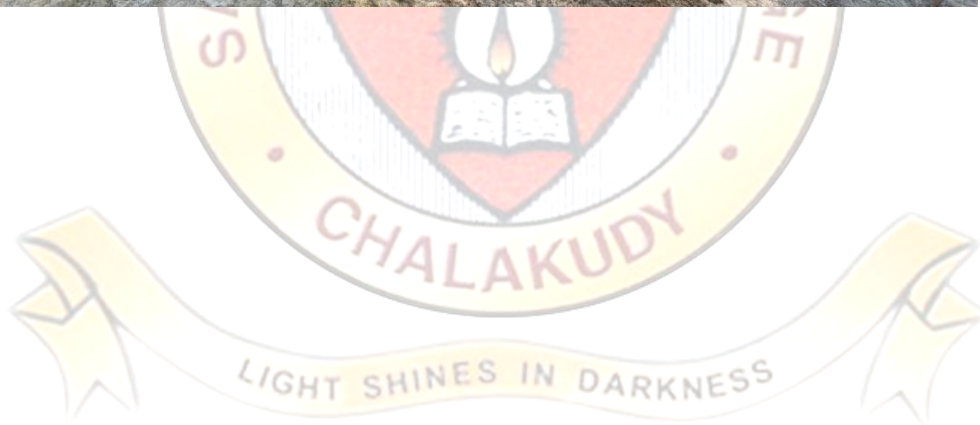


**Students measuring physical parameters in the water samples collected.**





**Students measuring physical parameters in the water samples collected.**



## Copy of a few pages of the project submitted by the students

### CERTIFICATE

This is to certify that the project entitled "WATER QUALITY ASSESMENT OF BHARATHAPUZHA RIVER" is the bonafide record of the work carried out by, **ALEENA DEVASSY, DALNA DAVIS, JITHYA KOSMIN, NAMITHA BABU, SILPA GOPI, SILPA K S SIVANI DINESH, SREEPARVATHY K D, ASHIRA ASHOKAN** under my guidance and supervision in Sacred Heart College, Chalakudy and that no part thereof has been presented for any other degree.

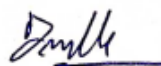
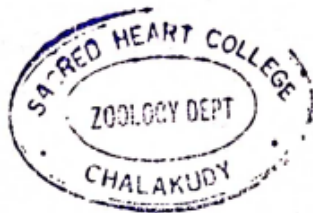
Place: Chalakudy

Date: 11-03-2020



Teacher in charge

(DR. V. NEETHA)



Dr. Tessy K L

Head of the Department of Zoology

Sacred Heart College, Chalakudy, Thrissur

*Head of the Department  
Dept. of Zoology  
Sacred Heart College  
Chalakudy.*

## **ACKNOWLEDGEMENT**

With great sincerity we profoundly thank Dr. TESSY K.L., HOD, Department of Zoology, SACRED HEART COLLEGE, CHALAKUDY for her precious guidance, suggestions and valuable insights in choosing the project.

Our sincere thanks to Dr. Sr. REENA ITTYACHAN, our principal for providing us with the facilities to carry out the project work.

We extend our hearty thanks to Dr. NEETHA.V. and Dr. Sr. JOAN for sustained encouragement and advices in the work.

We would like to thank Dr. Linto Alappat, Head Department of Geology and Environmental science and his team for collecting the samples and giving us permission to use it for our B.Sc. project. The sample were collected as a part of the project on "Sand Auditing of Bharathapuzha River", Govt. of Kerala (G.O. (Ms) No.730/2019/RD dated on 01-03-2019).

We would like to mention our gratitude to the Department of Biotechnology (DBT), Govt. of India which provided the funds through the STAR College Scheme to produce the water quality probe and incubator without which we would not be able to do the analysis for this project.

It is pleasure to thank our Laboratory Assistants especially Mrs. MARY M.D., Mrs. SINI P.O. for their sincere support.

We would like to thank our parents for supporting and boosting not only during the work but also throughout our life.

Thanks are also due to our friends who have been a source of inspiration.

**ALEENA DEVASSY**

**DALNA DAVIS**

**JITHYA KOSMIN**

**NAMITHA BABU**

**SILPA GOPI**

**SILPA K S**

**SIVANI DINESH**

**SREEPARVATHY K D**

**ASHIRA ASHOKAN**

### 3. METHODOLOGY

#### 3.1 WATER SAMPLE COLLECTION

Water samples were collected from 21 locations along the Bharathapuzha River and its tributaries (Table1). At each station the sample id and all the other physico chemical parameters that were measured using a water quality probe were recorded.

S.No.	Location Name	State	Sample ID	Latitude and Longitude
1	Ponani harbour	Kerala	BP1	N10°47'6.62" E75°55'3.72"
2	Chamravattom	Kerala	BP2	N10°50'3.29" E75°57'28.70"
3	Tanavur	Kerala	BP3	N10°51'56.1" E76°00'18.3"
4	Kuttipuram	Kerala	BP4	N10°51'40.15" E76°1'1.94"
5	Kodumudi	Kerala	BP5	N10°52'40.76" E76°6'48.70"
6	Thirumittacode	Kerala	BP6	N10°47'4.90" E76°11'6.51"
7	Ottapalam	Kerala	BP7	N10°46'7.63" E76°22'58.78"
8	Vadakkethara	Kerala	BP8	N10°42'15.54" E76°25'36.46"
9	Lakkidi Bridge	Kerala	BP9	N10°45'3.57" E76°26'5.95"
10	Kalikavu Bridge	Kerala	BP10	N10°46'47.65" E76°30'46.90"
11	Olavakkode	Kerala	BP11	N10°46'45.21" E76°34'25.72"
12	Mathur	Kerala	BP12	N10°48' 78.59" E76°42'7.87"
13	Menonpara	Kerala	BP13	N10°47'43.62" E76°46'52.66"
14	Kanjikode	Kerala	BP14	N10°47'9.25" E76°44'38.77"
15	Perumatty	Kerala	BP15	N10°41'33.09" E76°46'49.27"
16	Kozhipathy	Kerala	BP16	N10°39'39.70" E76°52'12.34"
17	Pudur	Kerala	BP17	N10°37'57.83" E76°55'34.07"
18	Marchinaickenpalayam	Tamil Nadu	BP18	N10°36'59.49" E76°57'20.79"
19	Uppar	Tamil Nadu	BP19	N10°36'33.31" E76°56'37.84"
20	Manjapatti	Tamil Nadu	BP20	N10°33'07.66" E77°01'20.24"
21	Erinsinampatti- Palar	Tamil Nadu	BP21	N10°30'55.90" E77°06'33.65"

**Table 1: Location name, sample ID and latitude and longitudes of the sites from which water samples were collected from the Bharathapuzha River**



