

## VISIT REPORT

### SCHOOL VISIT

ADDRESS: Gandhi prathamik vidyalay. Hewlett Road, Kanchrapara. North-24-parganas.



#### **PURPOSE OF VISIT:**

- To assess nutritional status
- To find out the pattern of mid day meal given by school
- To conduct diet survey

#### **Managed by: Dr Chitrlekha Mukherjee**

The Department of Food and Nutrition of Kanchrapara College, in collaboration with IQAC, organized an educational visit for 4th semester students on the date of 14th July 2023 for 14 students semester at Gandhi prathamik vidyalay. Hewlett Road, Kanchrapara. North-24-parganas. to assess the nutritional status of school going children and to learn about mid-day meal program and packed lunch program in schools. — Mission: In the curriculum, offered by Kalyani University, students acquired the theoretical knowledge of anthropometric measurement and clinical assessment.

After this visit, they applied the lessons learned to the school-going children on their own. In the curriculum, offered by Kalyani University there is a practical paper for which students

have to prepare a project report on High School Visit. This visit covered that part of the syllabus as well.

**Vision:**

These types of visits will enable the students to learn the techniques of field work, which will help them when they'll work as nutritionists in community-based projects







# **A Visit Report for Practical paper: F & N-H-CC-P-9**

## **On Community Nutrition and Epidemiology**

### **Organised By**

**Department of Food and Nutrition In Collaboration with IQAC**

**Kanchrapara College, Kanchrapara, 24 pgs (N)**

**Venue: Kanchrapara High School, Kanchrapara, 24 pgs (N),**

**West Bengal, India**



**Managed By:** Mrs. Rupsha Ghosh, Mrs. Subhasree Rudra, Mrs. Sneha Sengupta  
(Faculties of Department of Food and Nutrition), Mrs. Saswati Bakal ( Lab attended of  
Department of Food and Nutrition)

**Date:** 14<sup>th</sup> July, 2023

**Time:** 11:30 pm to 01:30 pm

**Session:** 2023-2024



The Department of Food and Nutrition of Kanchrapara College, in collaboration with IQAC, organized an educational visit for 4<sup>th</sup> semester students on the date of 14<sup>th</sup> July 2023 for 14 students semester at Kanchrapara High School to assess the nutritional status of school-going children and to learn about mid-day meal program and packed lunch program in schools.

- **Mission:** In the curriculum, offered by Kalyani University, students acquired the theoretical knowledge of anthropometric measurement and clinical assessment. After this visit, they applied the lessons learned to the school-going children on their own.

In the curriculum, offered by Kalyani University there is a practical paper (F & N-H-CC P-9) for which students have to prepare a project report on High School Visit. This visit covered that part of the syllabus as well.

- **Vision:** These types of visits will enable the students to learn the techniques of field work, which will help them when they'll work as nutritionists in community-based projects.

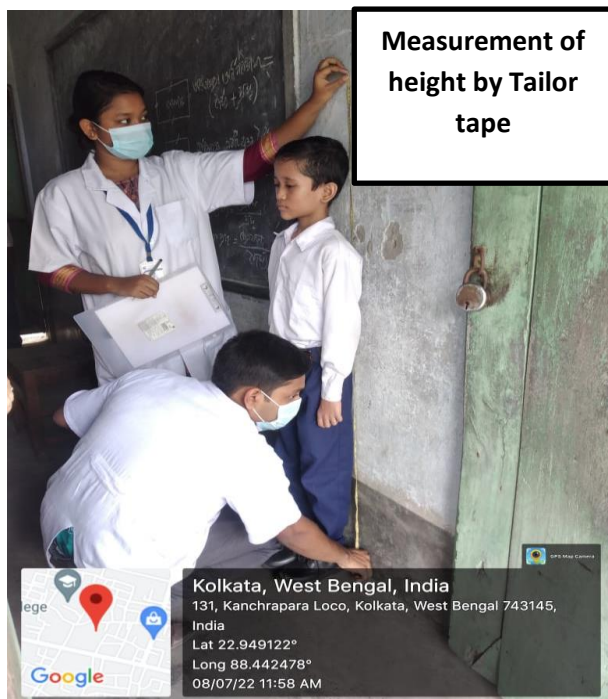
#### ❖ **ABOUT THE SCHOOL**

Kanchrapara High School was established in 1949 and is managed by the Department of Education. It is located in the Kanchrapara Municipality block of the north twenty-four Parganas district of West Bengal which is an urban area. The school consists of grades 5-12. The school is exclusively for boys, and there is no pre-primary section. Bengali is the medium of instruction in this school. The school is provided funds to prepare a mid-day meal on school premises.

#### ❖ **DETAILS OF VISIT**

**Session 1:** Anthropometry is widely recognized as one of the most useful techniques to assess the growth and nutritional status of an individual and a population. The visit was made to study the growth parameters of school-going children and to determine the relationship between dietary habits and overall growth of them. Also, the visit focuses on the concept of a mid-day meal program or packed lunch program which is a wholesome freshly-cooked lunch served to children in government and government-aided schools in India.

Having divided into three or four groups in both batches, students of our college took measurements of school students. The height (m) and weight (kg) of each student were measured with tailor tape and a weight machine. BMI (weight in kg/height in meter<sup>2</sup>) was calculated from the measurement. The age of the students was also recorded. For keeping the records of the survey, each student was given a printed proforma.



By taking height and weight, the class or grade of undernutrition was calculated using ICMR guidelines. Also, the height obtained from the survey was compared with ICMR recommended standard height with respect to age. It is necessary to measure the degree of malnutrition (though genetic factors also play a role in a child's height) of the school going children.

The dietary habits, as well as clinical signs of diseases of the school students, were also recorded.





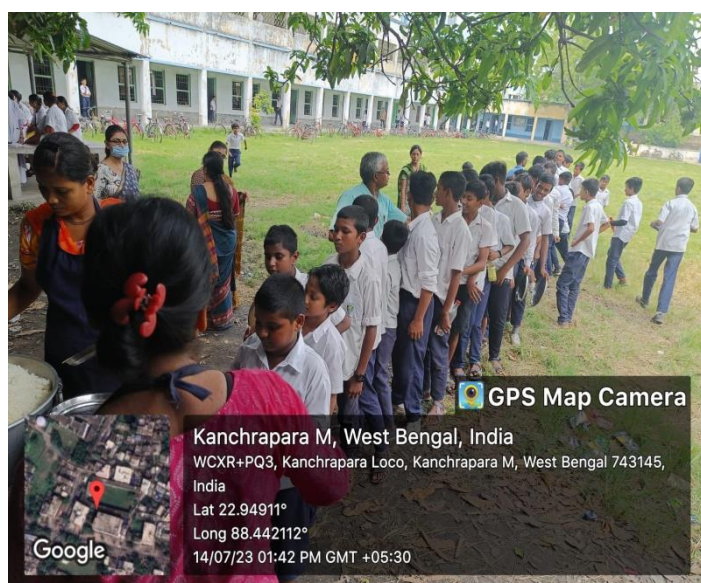
**Session 2:** The process and the whole concept of the packed lunch program were observed by our students in this session. The mid-day meal provided to school students was free of cost. School authorities provide it to students from class V to class X. They got to know that the mid-day meal workers cooked the lunches and distributed them at 1:30 p.m. on tiffin time every day. The worker distributed all the cooked foodstuffs one by one. On the day of our visit, they served boiled white rice and soybean-potato curry.



### ➤ Conclusion

During the school visit, our students learned the whole process of anthropometric measurement in a community survey, and the concept of a mid-day meal program was also cleared to them. This visit will help them in future studies on community surveys.

## PHOTO GALLERY









**DEPARTMENT OF GEOGRAPHY**  
**STUDY TOUR REPORT ON MANGALBARI VILLAGE, DOOARS**  
**Academic year: 2022-23**

**Introduction:**

An excursion is a trip by a group of students or people, usually programmed for studying geography outside the traditional classroom, where the students visualize and achieve the original knowledge of places and works which they have learned in the books and gain the knowledge of observation, evaluation and data collection and so on mainly the educational purpose.

**Overview:**

On the Academic year 2022-23 the Dept. of Geography, Kanchrapara College had organized a study tour to fulfil the requirements of the syllabus of the University of Kalyani (GEO-H-CC-P-11) at Mangalbari village, Dooars in the month of November - 2022. Total 32 students of Geography honours had participated on the excursion. There was an Instrumental survey (Dumpy level & Prismatic compass) and direct household, market, school and college survey to analyse the socio- economic condition of the area. Students have analyzed the specific problem of that area by preparing the questionnaire schedule and also have tried to give the measures of that particular problem.



**Objectives:**

The main objectives of the study tour were to:

1. To provide the direct source of knowledge for the students equipping them with the first hand information.
2. To activate the analytical power of the students.
3. To analyse the socio – economic condition as well as the physical set up of the area.
4. It generates curiosity among the students or learners directing their interests towards the exploration work.

### Beneficial aspect to the students:

It is suggested that the UG students are likely to gain most benefit from the excursion in terms of depth of learning and understanding when they are involved actively, particularly through various forms of inquiry based learning. The development of such field based learning curricula provides challenges to the students, not least because they may lead to finding new ways for students to work together. Some of the most highlighted beneficial aspect to the students are-

1. Provides a broad understanding of the world as well as socio-economic relationships of human beings in our society.
2. Present a well-reasoned and lucidly expressed argument.
3. Design an effective way of investigating the research problems.
4. Review existing literature / research of relevance to the chosen field work.



**DEPARTMENT OF GEOGRAPHY**  
**STUDY TOUR REPORT ON GANGTOK, SIKKIM**  
**Academic year: 2019-20**

**Introduction:**

An excursion is a trip by a group of students or people, usually programmed for studying geography outside the traditional classroom, where the students visualize and achieve the original knowledge of places and works which they have learned in the books and gain the knowledge of observation, evaluation and data collection and so on mainly the educational purpose.

**Overview:**

On the Academic year 2019-20 the Dept. of Geography, Kanchrapara College had organized a study tour to fulfil the requirements of the syllabus of 3<sup>rd</sup> year Geography Honours students, University of Kalyani at Gangtok, Sikkim in the first week of December - 2019. Total 28 students of Geography honours had participated on the excursion. There was an Instrumental survey (Dumpy level & Prismatic compass) and direct household, market, school and college survey to analyse the socio- economic condition of the area. Students have analyzed the specific problem of that area by preparing the questionnaire schedule and also have tried to give the measures of that particular problem.



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**DEPARTMENT OF GEOGRAPHY**  
**STUDY TOUR REPORT ON MANGALBARI VILLAGE, DOOARS**  
**Academic year: 2018-19**

**Introduction:**

An excursion is a trip by a group of students or people, usually programmed for studying geography outside the traditional classroom, where the students visualize and achieve the original knowledge of places and works which they have learned in the books and gain the knowledge of observation, evaluation and data collection and so on mainly the educational purpose.

**Overview:**

In the Academic year 2018-19 the Dept. of Geography, Kanchrapara College had organized a study tour to fulfill the requirements of the syllabus of the University of Kalyani (3rd year) at Mangalbari village, Dooars in the month of November - 2022. Total 36 students of Geography honours had participated on the excursion. There was an Instrumental survey (Dumpy level & Prismatic compass) and direct household, market, school and college survey to analyze the socio- economic condition of the area. Students have analyzed the specific problem of that area by preparing the questionnaire schedule and also have tried to give the measures of that particular problem.



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**Kanchrapara College**  
**Department of Zoology**  
**Educational Excursion Year 2018-2019**

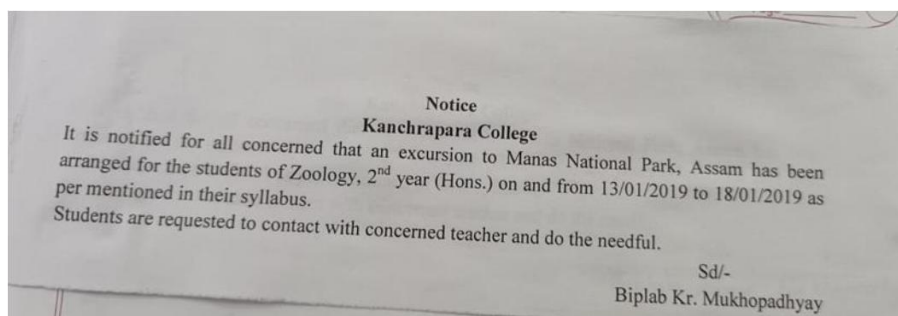
Department of Zoology

Excursion

KU Syllabus with effect from 2019-2020

ZOOL-H-CC-P03

**1. Excursion notice**



**2. Syllabus**

13

Course Code	Course Title	Total credits (FM)	Total no. of Lectures	Total no. of hours
ZOOL-H-CC-P-03	Perspectives in Ecology Lab	2 (20)	30	60

**List of Practicals**

1. Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided
2. Determination of population parameters (dominance, diversity, frequency) in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index and Importance Value Index for the same community.
3. Study of an aquatic ecosystem: Phytoplankton and zooplankton, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free CO<sub>2</sub>
4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary

1, 2: Theoretical, dry-lab.  
4: Major excursion.



### 3. Excursion Report

#### Preface

I am presenting a field work report on Manas National Park. In this field work I have tried to give all the important things about my field work. This report contains about the excursion and what we learn from Manas National Park. I have given information in this project by consulting books and useful websites .I have tried my best to avoid mistakes. If there is minute mistake please avoid it.

# Acknowledgement

We sincerely and honest acknowledge that the invaluable help rendered by the following persons without whose support we could not have done the report and educationally enriching tour. We express our greatest gratitude and best regards to **Ms. Rituparna Paul, Ms. Puja Bhattacharyya** for being the bricks and pillars in all matters related to excursion Mr. Dibyendu Roy for his cooperation. We have to mention excellent spirit of cooperation extended by **Dr. Biplab Kumar Mukhopadhyay** head of the department Zoology Kanchrapara College towards fulfillment of our requirements for the excursion.



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## **Introduction:-**

**Manas National Park** or **Manas Wildlife Sanctuary** is a [national park](#), [UNESCO Natural World Heritage site](#), a [Project Tiger](#) reserve, an elephant reserve and a [biosphere reserve](#) in [Assam](#), India. Located in the [Himalayan](#) foothills, it is contiguous with the [Royal Manas National Park](#)<sup>[2]</sup> in [Bhutan](#). The park is known for its rare and endangered endemic wildlife such as the [Assam roofed turtle](#), [hispid hare](#), [golden langur](#) and [pygmy hog](#). Manas is famous for its population of the wild water buffalo.



## **Aims and Objectives:-**

Aims and Objectives of Manas National Park Maozin is to conserve Manas Tiger Reserve with special preference to its core zone and to restore the past glory.

To promote Manas National Park as an international tourist spot.

To establish Manas National Park Conservation & Ecotourism Model

to establish and develop Eco-tourism and Community Tourism based on Conservation of Manas.

To revive and preserve the most ideal traditions and cultures of Bodo tribe.

To motivate and create awareness towards Conservation of Nature and Environment among the people

To bring about a Socio-Economic and Educational development in villages on the fring of Manas National Park through Eco-tourism and Community Tourism.

To promote Manas Ecotourism Concept across the globe.

To develop Network and Co-operation among the like minded NGOs across the globe.

To rehabilitate the ex-poachers and consume them in conservation of habitat, wildlife and harmony.

## OUR PROGRAMME OF MANAS NATIONAL PARK

Date of Journey	-	13 <sup>th</sup> January 2019
Train No & Name	-	12345 Saraighat Express
Departure Time & Place	-	15:50hrs Howrah Station

### Details Tour Programme

13/01/19: - Start from Howrah Station at 15:50hrs by 12345 Saraighat Express for New Bongaigaon Station.

14/01/19: - Reaching New Bongaigaon Station at 06:28hrs. Start from New Bongaigaon Station at 07:00hrs by Bus for Manas National Park. Reaching Manas National Park at 10:00hrs and transfer at Forest Rest House and Dormitories. Afternoon Jungle safari by Zypsy. Night stay at same Rest House and Dormitories.

15/01/19: - Morning and Evening coverage Manas National Park Safari by Zypsy. Night stay at same Forest Rest House and Dormitories.

16/01/19: - Morning coverage Royal Manas National Park (Bhutan) by Boat. Evening free and individual Activities. Night stay at same Forest Rest House and Dormitories.

17/01/19: - Start from Manas National Park at 07:00hrs by Bus for Barpeta Road. Reaching Barpeta Road at 09:30hrs. Start Barpeta Road Station at 10:15hrs by 15960 Kamrup Express for Howrah.

18/01/19: - Reaching Howrah Station at 06:00hrs.

## **Our Team-**

- **Teachers-** Dr. Biplab Kumar Mukhopadhyay

Ms. Ritupama Paul

Ms. Puja Bhattacharyya

- **Non-Teaching Staff-** Dibyendu Roy

- **Students-**

Disha Ghosh	Enakshi Ghosh
Nabanita Dey	Payeshee Sarkar
Poulumi Karmakar	Pritha Dey
Puja Sarkar	Avik Biswas
Sayani Mallick	Pratya Biswas
Injamul Shekh	Ruhul Amin Mondal
Akash Das	Sougata Kar
Samrat Das	Sourav Pramanick
Sumit Kr Poddar	Ankita Bose
Supriya Saha	Sayoni Dam
Sunita Hembram	Swagata Ghosh
Arpita Roy Chowdhury	Anusree Roy Chowdhury
Akash Biswas	Paramita Das
Sudipta Bhattacharjee	Bandana Debnath
Debjani Das	Ayesha Rahaman



## **HISTORY:-**

The Manas National Park was declared a sanctuary on 1 October 1928 with an area of 360 km<sup>2</sup>. Manas bioreserve was created in 1973. Prior to the declaration of the sanctuary it was a reserved forest called Manas R.F. and North Kamrup R.F. It was used by the Cooch Behar royal family and Raja of Gauripur as a hunting reserve. In 1951 and 1955 the area was increased to 391 km<sup>2</sup>. It was declared a World Heritage site in December 1985 by UNESCO. Kahitama R.F. the Kokilabari R.F. and the Panbari R.F. were added in the year 1990 to form the Manas National Park. In 1992, UNESCO declared it as a world heritage site in danger due to heavy poaching and terrorist activities. On 25 February 2008 the area was increased to 950 km<sup>2</sup>. On 21 June 2011, it was removed from the List of World Heritage in Danger and was commended for its efforts in preservation.

## **Management:-**

The Park has a Project Tiger Reserve (core) since 1973, a Biosphere Reserve (national) since 1989 and an Elephant Reserve (core) since 2003 as well as Important Bird Areas (IBA). The Manas Wildlife Sanctuary provides habitat for 22 of India's most threatened animals listed in Schedule 1 of India's National Wildlife (Protection) Act 1972. In total, there are nearly 60 mammal species, 42 reptile species, 7 amphibians and 500 species of birds, of which 26 are globally threatened. There are two major biomes present in Manas, namely, the grassland biomes and the forest biomes. The former includes the pygmy hog, Indian rhinoceros, Bengal florican, etc. The latter includes slow loris, wild pig, capped langur, etc. It is also famous for its population of wild water buffaloes along with rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is also home to one-horned rhinos.

A total of 17 camp sites under prime grassland habitat were surveyed under two ranges of the park: Bansbari and Bhuyanpara. The specific targets of the survey were the pygmy hog (*Porcula salvania*) and hispid hare (*Caprolagus hispidus*). The GPS-based sign survey method was used to look for indirect signs such as pygmy hog droppings, nests and hispid hare pellets and feeding signs. A total of 20 nests of pygmy hog were detected at three locations. Hispid hare pellets were found almost on all camp sites. Wet alluvial grasslands dominated by *Barenga* (*Saccharum narenga*) and *Ulu* (*Imperata cylindrica*) species under the two ranges are critical for the survival of the pygmy hog and hence Manas Wildlife Sanctuary's authority takes suitable methods to protect it. The survey also received evidence for other grassland obligate species like hog deer (*Hyelaphus porcinus*), swamp deer (*Rucervus duvaucelii*) and the Bengal florican (*Houbaropsis bengalensis*).

### **Extension of area :-**

The park is divided into three ranges. The western range is based at Panbari, the central at [Bansbari](#) near [Barpeta Road](#), and the eastern at Bhuiyapara near [Pathasala](#). Manas is located in the foothills of the [Eastern Himalaya](#) and is densely forested. The Manas river flows through the west of the park and is the main river within it. It is a major tributary of Brahmaputra river and splits into two separate rivers, the Bwrsi and Bholkaduba as it reaches the plains. Five other smaller rivers also flow through the national park which lies on a wide, low-lying alluvial terrace spreading out below the foothills of the outer Himalaya. The park is 950 km<sup>2</sup>. in area and is situated at a height of 61m to 110m above mean sea level.

The national park that harbours wide-ranging flora and fauna has an area of 520 sq km. The floristic composition of the proposed extension area is rich and diverse, with 381 plant species identified so far. The break-up of the habitat is dense forest 151 sq km, open forest 91 sq km, grassland 71 sq km, swampy land 17.5 sq km and rivers 19.5 sq km. Excluding the southern side of the proposed area, the other three sides have contiguous forest areas both in Bhutan and India.

### **Topography :-**

Center: 26.7459904 91.0203239

Borders: 26.7446414 91.0189749 26.7473394 91.0216729

Manas National Park, Fatemabad - Mathanguri Road, Jyoti Gaon, Assam 781315, India map, Manas National Park, Fatemabad - Mathanguri Road, Jyoti Gaon, Assam 781315, India topography, Manas National Park, Fatemabad - Mathanguri Road, Jyoti Gaon, Assam 781315, India elevation, Manas National Park, Fatemabad - Mathanguri Road, Jyoti Gaon, Assam 781315, India relief, India, Assam, Jyoti Gaon, point of interest, park.

### **Climate:-**

The minimum temperature is around 15 degrees C and maximum temperature is around 37 degrees C.

Heavy rainfall occurs between May and September. The annual average rainfall is around 333 cm.

**Soil type:-** Deep alluvial Himalayan Wash



### **Geology and Geomorphology:-**

Manas National Park is located at the foothills of the Bhutan Himalayas in Baksa and Chirang districts of Assam (26°35'-26°50'N, 90°45'-91°15'E). It spans on both sides of the Manas River and is restricted to the north by the international border of Bhutan, to the south by thickly populated villages and to the east and west by reserve forests.

Park occupies an area of 500 sq. km., which forms the core area of the Tiger Reserve (2837 sq.km). The Tiger Reserve stretches over a length of 150 km. It is contiguous with Royal Manas National Park (1023 sq. km.) of Bhutan. The Manas National Park is located at the junction of Indo-Gangatic, Indo-Malayan and Indo-Bhutan realms and is a key conservation area in the Jigme Dorji-Manas-Bumdeling conservation landscape in the eastern Himalayan eco-region. The natural gradient of the land is gentle sloping southward and area along the southern boundary is more flat and get water-logged during the rains.

### **Drainage:-**

The Manas Wild Life Sanctuary, located in Assam, is considered as one of "Asia's finest wild life reserves" and is a UNESCO World Heritage Site. It is contiguous to the Bhutan's Royal National Park to its north. It now encompasses a bio reserve, a tiger reserve and also an elephant reserve. The park is well forested and also comprises grass lands and marshes. In 1928, the core of the area was designated a sanctuary and in 1978 it was declared a tiger reserve.<sup>[17]</sup>

Manas River and another tributary of Manas, the Hakua, flow through the sanctuary. A thick mantle of alluvium is the dominant soil of the terrain. Under subtropical climatic conditions (with 30 millimeters (1.2 in) of annual rainfall and temperature varying from a maximum of 30 °C (86 °F) and a minimum of 5 °C (41 °F), the forest consists of the semi-evergreen forest vegetation with mixed deciduous,

## **Socio Economic Attributes:-**

The study area comprised a total of 563 households. The total population was recorded as 3019 and the average individual per household was 5.36. Average cultivable land holding pattern of the farmers was 0.99 ha that ranged from 0.07–10.58 ha. About 14.39% of the farmers were landless.

The majority had their land holding areas that were less than 1 hectre, while only a few had larger areas of land. The main source of livelihood was traditional and subsistence farming. Only 8.76% of the households had an alternate source of livelihood to agricultural crop cultivation.

Five major agricultural crops were two type of paddies *Oryza sativa* - autumn paddy & winter paddy, pulses (Lentil, *Lens culinaris* and Jarosse, *Lathyrus sativus*), oil

seeds(Linseed, *Linum usitatissimum* and Indian  
Niger, *Guizotia abyssinica*) and spice  
(Coriander, *Coriandrum sativum*). In the study area, paddy  
was the principal crop which farmers considered central to  
their subsistence.

### **Man and Animal Conflict:-**

An assessment of human-elephant conflict was carried out in the fringe villages around Manas National Park, Assam during 2005-06. The available forest department conflict records since 1991 onwards were also incorporated during analysis. Conflict was intense in the months of July-August and was mostly concentrated along the forest boundary areas, decreasing with distance from the Park. Crop damage occurred during two seasons; paddy (the major crop) suffered the most due to raiding.

Crop maturity and frequency of raiding were positively correlated. Single bull elephants were involved in conflicts more frequently (59%) than female herds (41%), while herds were involved in majority of crop raiding cases. Combinations of methods are most effective. Family herds were easily deflected, while single bulls were difficult to



ward off. Affected villagers have suggested methods like regular patrolling (39%) by the Forest Department officials along the Park boundary, erection of a concrete wall (18%) along the Park boundary, electric fencing (13%), simply drive away (13%), culling (11%) and lighting the Park boundary during night hours (6%). Attempts to reduce conflict by changing the traditional cropping pattern by introducing some elephant-repellent alternative cash crops (e.g. lemon and chilli) are under experiment.

### **Other Disturbance:-**

There are 61 fringe villages to the south of Manas National Park consists of local tribes dominated by the *Bodo*. Other communities include *Assamese*, *Bengali*, *Nepali* and Tea Garden laborer community. Traditionally these local tribal communities hunt wild animals for meat.

Although, during the study period we did not find any information of hunting of Hispid hare but the possibility is there as we sighted snare set for deers and wild boars.

The UNESCO declared the park as a World Heritage site in 1985, but enlisted it as a World Heritage Site in Danger in 1992 after reports of severe poaching and insurgent activities in the park.

The park had also lost all its one-horned rhino population during this period. It however managed to get back its World Heritage site status in 2008, and one-horned rhinos were brought to the park from Kaziranga national park in 2010-11 as part of Assam government's ambitious Indian Rhino Vision (IRV) 2020 project aiming at having at least 3,000 one-horned rhinos in the state by 2020.

### **Our Activities In Manas:-**

Beside Gypsy safari in Manas National Park, we are also collected the water sample of Manas river on 15/01/2019 for determination of free CO<sub>2</sub>, O<sub>2</sub> & Alkalinity present in the sample water.

- Free CO<sub>2</sub> content in water sample was = 7.99 mg/lit.
  - Dissolved oxygen present in sample water was = 28.8 mg/lit.
  - Total alkalinity of the sample water was = 71.2 mg/lit.
-

### **CHECKLIST:-**

#### **A) Mammals:-**

1. Sambar deer
2. Black giant squirrel
3. Elephant
4. Capped langur
5. Water buffalo
6. Rhino
7. Barking deer
8. White-bellied musk deer
9. Pig tailed macaque

#### **B) Birds:-**

1. House crow
2. Common myna
3. Indian peafowl
4. Crested serpent eagle
5. Jungle fowl
6. Kalij pheasant
7. Black drongo
8. Greater racket tailed drongo
9. Red vented bulbul
10. Red whiskered bulbul
11. Chestnut tailed starling
12. Spot billed pelican
13. Lesser adjutant stork

#### 4. Pictures







## 5. Gurdian consent

Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 pgs.

Zoological excursion to Manas National park during the Academic Session 2018-19.  
The journey will start from Howrah station on 13<sup>th</sup> January 2019 and terminate on 18<sup>th</sup> January 2019 at Bandel station.

Declaration by the student

I, Avik Biswas a student of Part-II Zoology Hons., Roll No 525, do hereby declare that I shall abide by the rules/regulation and instructions as set forth by the Teacher-in-Charge and executed by the Teachers accompanying us and guiding our excursion.  
I shall pay the amount of Rs.7400/- (Rupees seven thousand and four hundred only) for the above said excursion.

Avik Biswas  
(full signature of the student)

Declaration by the Guardian

I endorse the above declaration given by my ward

Name: Sadhana Biswas  
Signature with date: 13.12.2018  
Address: Palta, Ambagan Link  
Road, P.O. - Bengal Enamel  
Dist. - 24 P.G.S. (N).  
Contact number: 9477919409

Appropriate action will be taken against the students violating instruction for excursion

Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 pgs.

Zoological excursion to Manas National park during the Academic Session 2018-19.  
The journey will start from Howrah station on 13<sup>th</sup> January 2019 and terminate on 18<sup>th</sup> January 2019 at Bandel station.

Declaration by the student

I, Bandana Debnath a student of Part-II Zoology Hons., Roll No 826, do hereby declare that I shall abide by the rules/regulation and instructions as set forth by the Teacher-in-Charge and executed by the Teachers accompanying us and guiding our excursion.  
I shall pay the amount of Rs.7400/- (Rupees seven thousand and four hundred only) for the above said excursion.

(full signature of the student)

Bandana Debnath

Declaration by the Guardian

I endorse the above declaration given by my ward

Name: Balaram Debnath  
Signature with date: Balaram Debnath  
19/9/18  
Address: Halisahar, East  
Kabiraj para  
Contact number: 98831 06428

Appropriate action will be taken against the students violating instruction for excursion.

**Kanchrapara College**  
**Department of Zoology**  
**Educational Excursion Year 2022-2023**

**Notice**

**Kanchrapara College**

It is notified for all concerned that an excursion to Central Sericultural Research & Training Institute (CSRTI), Baharampur, has been arranged for the students of Zoology 4th semester (Hons) on 01/06/2022 as per mentioned in their syllabus.

Students are requested to contact with concerned teacher and do the needful.

Sd/-

Anuradha Mandal

Course Code	Course Title	Total credits (EM)	Total no. of Lectures	Total no. of hours
ZOOL-H-CC-P-03	Perspectives in Ecology Lab	2 (20)	30	60

#### List of Practicals

1. Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided.
2. Determination of population parameters (dominance, diversity, frequency) in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index and Importance Value Index for the same community.
3. Study of an aquatic ecosystem: Phytoplankton and zooplankton, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free  $\text{CO}_2$ .
4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/Marine ecosystem.

1, 2: Theoretical, dry-lab.

4: Major excursion.



### Reference Books

- Gilbert, S. F. (2010). Developmental Biology, IX Edition, Sinauer Associates, Inc., Publishers, Sunderland, Massachusetts, USA
- Slack JMW, Essential Developmental Biology.
- Kardong, K.V. (2005) Vertebrates' Comparative Anatomy, Function and Evolution. IV Edition. McGraw-Hill Higher Education.
- Kent, G.C. and Carr R.K. (2000). Comparative Anatomy of the Vertebrates. IX Edition. The McGraw-Hill Companies
- Hilderbrand, M and Gaslow G.E. Analysis of Vertebrate Structure, John Wiley and Sons
- Saxena, R.K. & Saxena, S.C. (2008) : Comparative Anatomy of Vertebrates, Viva Books Pvt. Ltd.
- Krebs, C. J. (2001). Ecology. VI Edition. Benjamin Cummings.
- Odum, E.P., (2008). Fundamentals of Ecology. Indian Edition. Brooks/Cole
- Robert Leo Smith Ecology and field biology Harper and Row publisher
- Ecology: Theories & Application (2001). 4<sup>th</sup> Edition by Peter Stilling.
- Ecology by Cain, Bowman & Hacker. 3<sup>rd</sup> edition. Sinauer Associates

Course Code	Course Title	Total credits (FM)	Total no. of Lectures	Total no. of hours
ZOOL-H-GE-P-02	Comparative Anatomy and Developmental Biology of Vertebrates Lab	2 (20)	30	60

### List of Practicals

1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs
2. Study of disarticulated skeleton of Toad, Pigeon and Guinea pig.
3. Demonstration of Carapace and plastron of turtle OR
4. Identification of mammalian skulls: One herbivorous (Guinea pig) and one carnivorous (Dog) animal
  - a. Dissection of Tilapia: Circulatory system, Brain, pituitary, urinogenital system.
  - b. Study of whole mounts of developmental stages of chick through permanent slides: 24, 48, 72, and 96 hours of incubation.
5. Study of an aquatic ecosystem: Phytoplankton and zooplankton, determination of pH, and Dissolved Oxygen content (Winkler's method) and free CO<sub>2</sub>.
6. Report on a one-day visit to Sanctuary/Zoo/Sericulture station/Fishery/apiculture station/pond ecosystem/agroecosystem.

Either 3 or 4.

Lab note book, with labelled diagrams and identifications, with reason.

Separate Lab Notebooks for Identification and Ecology.

Separate Field Notebook.

**Kanchrapara College**  
**Department of Zoology**  
**Educational Excursion Year 2022-2023**

**Notice**

**Kanchrapara College**

It is notified for all concerned that an excursion to Kulia Fish Farm, Kalyani has been arranged for the students of Zoology 5th Semester (Hons) and 5th Semester (CC) on 12/12/2022 as per mentioned in their syllabus.

Students are requested to contact with concerned teacher and do the needful.

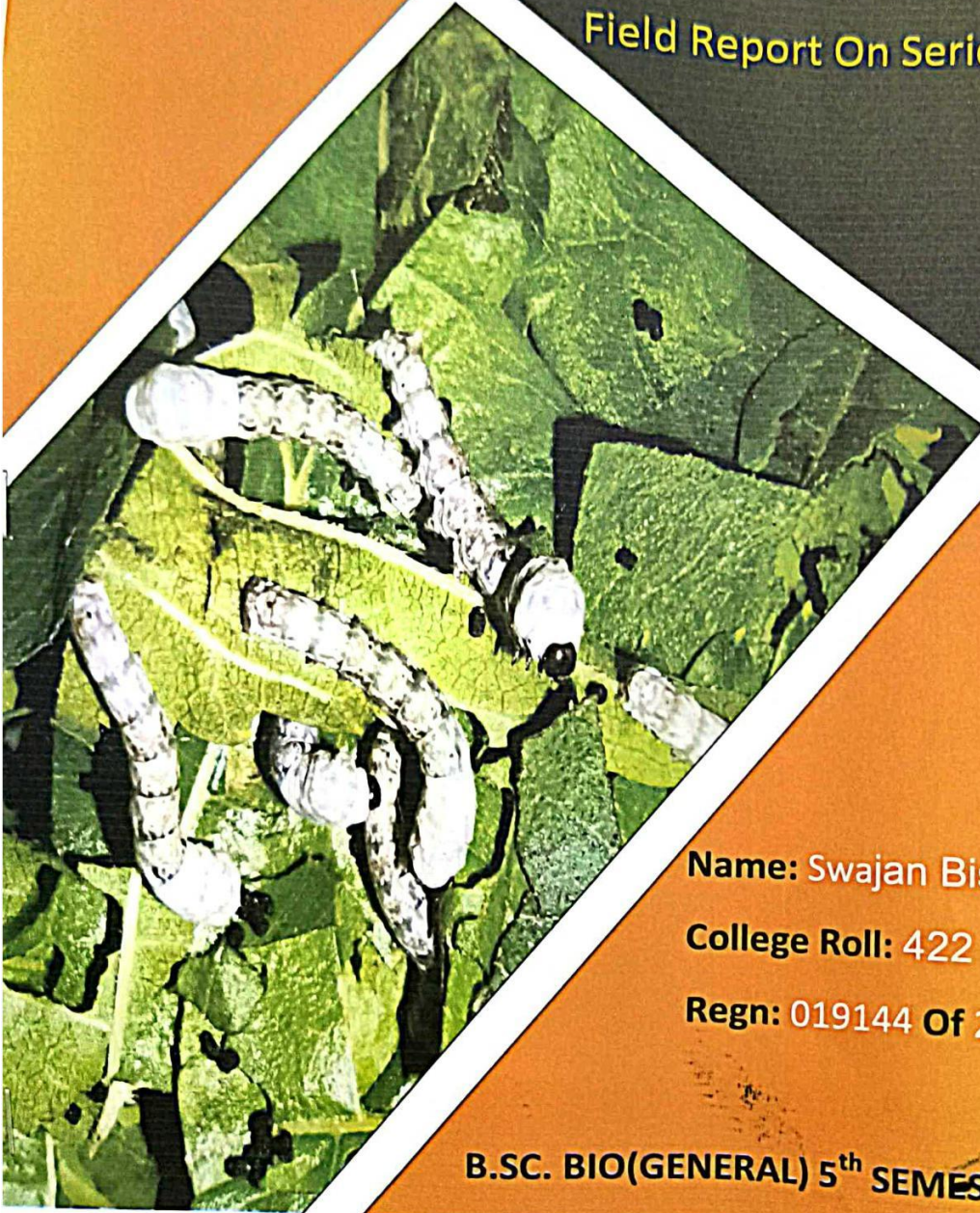
Sd/-

Anuradha Mandal



# KANCHRAPARA COLLEGE

## Field Report On Sericulture



Name: Swajan Biswas

College Roll: 422

Regn: 019144 Of 2020-21

B.SC. BIO(GENERAL) 5<sup>th</sup> SEMESTER

## □ *PREFACE*

In the preparation of this field report of Sericulture, I have precisely demarcated all the important points. I have made my best possible efforts to remove all the errors.

This report contains about the excursion in CENTRAL SERICULTURE RESEARCH AND TRAINING INSTITUTE, BERHAMPORE, WEST BENGAL, and what we learnt about sericulture from the institute.



## ACKNOWLEDGEMENT

I would like to express my deepest appreciation to all those who provided me the possibility to complete this report. I express our greatest gratitude and best regards to DR. Saili Paul for being the bricks and pillars in all matters related to excursion Mr. Debashis Aich for his cooperation. We have to mention excellent spirit of cooperation extended by MRS. Anuradha Mandal head of the department Zoology Kanchrapara College towards fulfillment of our requirements for the excursion.

Date:

Anay Mondal

Student's Signature

A. Mandal

Teacher's Signature

## INDEX

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## What is excursion

The main objective of conducting an Educational Excursion and field trip for students is to reinforce experiential and contextual learning. Further, the school organizes planned visits to various places to enrich the students and to take learning beyond the four walls of the classroom. Field trips are a way of enhancing classroom learning by making real world connections. Travel expands your horizons and school life cannot be complete without the fun of educational tours and excursions. These trips are tailor made to facilitate the students to know and understand the real, multicultural world. A host of activities are undertaken as a part of trips which act as a catalyst to think out of the box and broaden the outlook. The school discreetly organizes educational trips to strategically and historically important places and facilitates for students to reach out for information beyond the textbooks. The trips give students the opportunity to observe a particular environment that enables first-hand experience of what they are learning. In addition, students achieve a higher level of critical thinking when they evaluate their own learning compared with what they get exposed to, and they are able to modify their knowledge based on their personal experiences. Field trips also offer students and teachers the opportunity to interact outside of the classroom, thus enhancing their bonding with each other and improving their social and life skills.

## Purpose of excursion

- (1) They provide direct source of knowledge and acquaint the student with first hand information.
- (2) They provide an opportunity to the student for development of his aesthetic sense.
- (3) By such excursion students become interested in the exploration of their environment.
- (4) They help to develop in students a love for nature and to acquaint them with the real happiness in the outside world.







## Introduction

Man is always inquisitive for silk products. SILK- The Queen of Textiles, spells luxury, elegance, class and comfort. Mankind has always loved this shimmering fiber of unparalleled grandeur from the moment Chinese Empress Shilling Ti discovered it in her tea cup. It withstood many a daunting challenges from other natural and artificial fibers and yet, remained the undisputed Queen of Textile since centuries. Exquisite qualities like the natural sheen, inherent affinity for dyes and vibrant colors, high absorbance, light weight, resilience and excellent drape etc. have made silk, the irresistible and inevitable companion of the eve, all over the world.

## What is Silk?

Silk is a natural protein fiber, some forms of which can be woven into textiles. The protein fiber of silk is composed mainly of fibroin and is produced by certain insect larvae to form cocoons. The best-known silk is obtained from the cocoons of the larvae of the mulberry silkworm *Bombyx mori* reared in captivity (sericulture). The shimmering appearance of silk is due to the triangular prism-like structure of the silk fibre, which allows silk cloth to refract incoming light at different angles, thus producing different colors.

Silk is produced by several insects; but, generally, only the silk of moth caterpillars has been used for textile manufacturing. There has been some research into other types of silk, which differ at the molecular level. Silk is mainly produced by the larvae of insects undergoing complete metamorphosis.

## Where do we find Silk?

Geographically, Asia is the main producer of silk in the world and produces over 95% of the total global output. Though there are over 40 countries on the world map of silk, bulk of it is produced in China and India, followed by Japan, Brazil and Korea. China is the leading supplier of silk to the world. India is the second largest producer of silk and also the largest consumer of silk in the world. It has a strong tradition and culture bound domestic market of silk. In India, mulberry silk is produced mainly in the states of Karnataka, Andhra Pradesh, Tamil Nadu, Jammu & Kashmir and West Bengal, while the non-mulberry silks are produced in Jharkhand, Chhattisgarh, Orissa and north eastern state.



## Types of Silk:

There are five major types of silk of commercial importance, obtained from different species of silk worms which in turn feed on a number of food plants. These are:

- 1) Mulberry
- 2) Non Mulberry
  - a) Tropical tasar & Oak tasar
  - b) Muga
  - c) Eri

## Sericulture:

Sericulture, or silk farming, is the cultivation of silkworms to produce silk. Although there are several commercial species of silkworms, *Bombyx mori* (the caterpillar of the domestic silkworm) is the most widely used and intensively studied silkworm. Silk was believed to have first been produced in China as early as the Neolithic Period. Sericulture has become an important cottage industry in countries such as Brazil, China, France, India, Italy, Japan, Korea and Russia. Today China and India are the two main producers, with more than 60% of the world's annual production.

## Our aim and Objective:

We the students of B.SC. Bio general, Kanchrapara college heard a soft notice that our teachers will lead the entire 5<sup>th</sup> semester to CENTRAL SERICULTURE RESEARCH AND TRAINING INSTITUTE, BERHAMPORE, WEST BENGAL. We are excited to know that soon our theoretical knowledge will be transformed into something real life experience. Before we started our journey we noted some point about rules and regulations and which things we can do while in the field and things can't do while in the field.

## Our Team:



- **Teachers:** Mrs. Anuradha Mondal

Dr. Saili Paul

- **Non Teaching Staff:** Debashish Aich
- **Students:** Supriyo Ghosh, Anay Mondal, Debjit Banerjee, Shreya Paul, Akash Shaw, Kankana Biswas, Ayon Mistry, Rohit Paul, Dipa some, Kumari preeti mina, Swajan Biswas, Chandrima Singh, Dipasree Saha, Suraj Biswas, Sneha Mukherjee, Arthita Biswas, Chandan Dhali, Dipa Sarkar, Nitu Das, Sayani Sarkar, Subhankar Dutta, Debarghya Debnath, Sreenjoy sengupta, Manojit Paul
- **Schedule of our journey:**

**Name of the Train:** Hazarduari Express

**Date of the journey:** 8<sup>th</sup> December 2022

**Time of the journey:** 08:20 A.M.

## **CENTRAL SERICULTURE RESEARCH AND TRAINING INSTITUTE, BERHAMPORE, WEST BENGAL**

CSR&TI, Berhampore is a premier research station established during early 1943 to provide the research and development support for promotion of silk industry in the Eastern and Northeastern region. Presently, it functions under the administrative control of Central Silk Board, a statutory body under the ministry of textiles, Govt. of India. The institute is located in the historic district of Murshidabad in West Bengal, where the silk industry has bloomed, flourished and reached its pinnacle. The city is 200 km away from Kolkata and well connected by both Rail and Road.

The institute conducts research in all aspects of sericulture from soil to silk. Vested with the mandate to conduct research, it has made remarkable research break through and outstanding contributions for the overall development of silk industry in the region. On the plant side, new mulberry varieties capable of increasing the productivity and quality of leaf have been developed together with package of practices. On the insect side, productive silkworm breeds suitable to the region have been evolved, and suitable prevention and control measures have been worked out. Even on the reeling front, improved cooking and reeling techniques are suggested. To generate human resources development, tailor made training programme are conducted apart from the regular course of Post Graduate Diploma in Sericulture. All these contributions helped to sustain growth of the industry in this region. In the recent years, the institute has embarked on a "lab to land" programme to disseminate the research findings into successful economic ventures among the rural people. It's a new phase, a new dimension and a new promise to the industry ahead that acknowledges a greater wisdom and pride.

### **Our Activities:**

- On 8<sup>th</sup> December 2022 we reached Central Sericulture Research & Training institute, Berhampore at almost 11:30 A.M.
- Then we met with an incharge of the institute. He explained us about everything that is done in this institute. He told us that this institute is working on various sericulture related projects to help farmers involved in this field.



- Then we started visiting the institute. At first we visited fields of mulberry plants & also noticed the cultivation methods.
- Then we visited breeding room. Where we saw many silk worms. As we know silk worm has 4 molting stage and 5 instar stage. These worms were in 2<sup>nd</sup> instar stage.
- After that we went to the reeling and spinning division.
- Here they at first kill the pupa inside the cocoon & then dried it through many methods. After that the cooking of cocoon is done. They cook the cocoon at boiling temperature for 3-5 mins. This is done to soften the sericin of the cocoon. There after the brushing method is done & it's ready for reeling. After reeling the tenacity & elongation test is done.
- This institution is working hard to develop more improved hybrid for commercial use.

### **Futures of Silk in India:**

We are the 2nd largest producer of silk in the world after China. The largest consumer of silk in the world. The only country in the world that produces all 5 varieties of silk on a commercial scale. Holds the global monopoly for production of the famed golden 'Muga' silk. Along with these we faced some challenges:

- **Urbanization in Traditional Sericulture Areas:**

Along with the rapid economic development in the traditional areas of the country, the industrialization and urbanization process has accelerated significantly.

- **Augmentation of Bivoltine Raw Silk Production:**

Tropicalisation and popularization of bivoltine sericulture in our country is a big challenge. The bivoltine breeds alone can produce the gradable raw silk with the strength and tenacity required for our power looms.

- **Degrading Genetic Base:**

India has a very narrow genetic base required for developing the high yielding, disease tolerant breeds with better survival under fluctuating tropical conditions.

- **Unorganized nature of Sericulture:**

The Indian sericulture continues to remain with small, marginal farmers and small reelers, unlike China which has small producers but large converters.

### **Government initiatives through Central Silk Board (CSB) to revive Silk industry in India:**

1. Integrated Scheme for the Development of Silk Industry (CSS)
2. Central Silk Board (CSB) has been implementing a rationalized restructured Central Sector Scheme "Integrated Scheme for Development of Silk Industry" for development of sericulture in the Country.
3. It is an umbrella scheme consisting of following four components for the development of Sericulture and Silk industry.
4. The focus and emphasis are on improving production, quality and productivity of domestic silk thereby reducing the country's dependence on imported silk.
5. The Scheme has four components –

- a. Research & Development (R&D), Training, Transfer of Technology and IT Initiatives
6. Seed Organizations and farmers extension centres
7. Coordination and Market Development for seed, yarn and silk products and Quality Certification System (QCS) by creating amongst others a chain of Silk Testing facilities, Farm based & post-cocoon Technology Up-gradation, and Export Brand Promotion.

## **CONCLUSION:**

Excursion broadened our Outlook. We wear experience to cope up different situations working out as a unit. Theoretical Knowledge is not enough to fulfill our knowledge. This excursion help us to know about sériculture we are recharged once again with new interest and enthusiasm.

The best memories of the tour has drowned a deep-line in the deepest core of our heart which will remain unchanged till our last breath.

## **References:**

Various websites of internet-

- [www.wikipedia.com](http://www.wikipedia.com)
- [www.csrtiber.res.in](http://www.csrtiber.res.in)
- [www.abhipedia.abhimanu.com](http://www.abhipedia.abhimanu.com)

The End.



## CERTIFICATE OF PARTICIPATION

This is certify that the candidate holding College Roll: 387 & Registration No. 019081 of 2020-21 is a regular Student of B.Sc.Bio(general) 5<sup>th</sup> Semester in Kanchrapara College, Kanchrapara North 24 pgs, has participated in the excursion to. The student was serious in his studies throughout Central Sericulture Research And Training Institute, Berhampore, West Bengal the excursion.

Signature of the accompanied Teachers:

A. Mondal

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Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 Parganas  
Zoological Excursion to Central Sericulture Research and Training Institute during the academic session 2022 Semester-V(CC)  
Declaration by the students

I Sri/Smt Kumari Preeti Meena a student of Sem V, Zoology Programme course (2022) Roll No. 355 do hereby declare that I shall abide by the rules/ regulation and instruction as said forth by the principal and executed by the teachers accompanying us and guiding our field trip.

I shall pay amount of Rs. 500 /- (rupees five hundred) for the above said excursion and the full amount will be paid in advance which is non-refundable.

Kumari Preeti Meena  
Full signature of student

Declaration by Guardian

I endorse the above declaration given my word,

Name: PREMSINGH MEENA  
Signature with date: Prem Singh Meena 06/12/22  
Address: 49 ABUL JABBAR ROAD DEHBANCHI, PALLY, KANCHRAPARA NRG 24  
Contact no.: 6291037910  
Appropriate action will be taken against the students for violating rules and instruction for excursion.

Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 Parganas  
Zoological Excursion to Central Sericulture Research and Training Institute during the academic session 2022 Semester- V (CC)  
Declaration by the students

I Sri/Smt Rohit Paul a student of Sem V, Zoology Programme course (2022) Roll No. 407 do hereby declare that I shall abide by the rules/ regulation and instruction as said forth by the principal and executed by the teachers accompanying us and guiding our field trip.

I shall pay amount of Rs. 500 /- (rupees) for the above said excursion and the full amount will be paid in advance which is non-refundable.

Rohit Paul  
Full signature of student

Declaration by Guardian

I endorse the above declaration given my word,

Name: Rathien Paul  
Signature with date: Rathien Paul 6-12-22  
Address: Bikrampur, Katayang, Nadia. PIN- 741250  
Contact no.: 7890436637  
Appropriate action will be taken against the students for violating rules and instruction for excursion.

# List of Students

5th Semester Programme Course  
Excursion to CSRTI, Berhampore  
DATE → 07/12/2022.

Sl. No.	Name
1.	Supriyo Ghosh
2.	Anay Mondal
3.	Subhankar Dutta
4.	Monojit Paul
5.	Debarghya Debnath
6.	Debjit Banerjee
7.	Dipagree Saha
8.	Kumari Preeti Meena
9.	Sneha Mukherjee
10.	Sayani Sarkar
11.	Dipa Sarkar
12.	Dipa Some
13.	Ankita Sarkar
14.	Swajan Biswas
15.	Shreya Paul
16.	Kankana Biswas
17.	Rohit Paul
18.	Akash Shaw

19. Shrinjoy Sengupta
20. Suraj Biswas
21. Nitu Das
22. Ayon Mistry
23. Chandan Dhal
24. Arthita Biswas
25. Chandrima Singh

List of Teaching staff

- 1) Anuradha Mandal
- 2) Sairi Paul

List of Non-teaching staff

- 1) Debashish Aich



To  
The Principal  
Kanchrapara College,  
Kanchrapara

Date: 06/01/23

Subject: Reimbursement of expenditure incurred from our own fund for educational excursion to Berhampore "Central Sericulture Research and Training Institute" on 07/12/2022.

Sir

With reference to the subject mentioned above I am requesting you to release the fund toward the expenditure incurred from our own for educational excursion to Berhampore "Central Sericulture Research and Training Institute", dated 7th December 2022. The details of the expenditure are stated below.

Sl.no.	Purpose	Amount
1	Train fare for 2 teachers and 1 non-teaching staff @280/-	Rs.840.00
2.	Amount paid to CSRTI	Rs.1000.00
3.	Refreshment for 3 persons	Rs.500.00
	<b>Total expenditure</b>	<b>Rs.2340.00</b>

I am requesting you to pay the above said amount as early as possible.

Thanking you,

Sincerely yours

A. Mondal  
(Anuradha Mandal)  
Department of Zoology  
Kanchrapara College

To  
Accountant  
Please take necessary  
action for payment of Rs.2340.00  
Albera  
19/01/23

**Kanchrapara College**  
**Department of Zoology**  
**Educational Excursion Year 2022-2023**

**Notice**

**Kanchrapara College**

It is notified for all concerned that an excursion to Kulia Fish Farm, Kalyani has been arranged for the students of Zoology 5th Semester (Hons) and 5th Semester (CC) on 12/12/2022 as per mentioned in their syllabus.

Students are requested to contact with concerned teacher and do the needful.

Sd/-  
Anuradha Mandal

To  
The Principal  
Kanchrapara College  
Kanchrapara

Date:07/01/23

Sub- Reimbursement of expenditure incurred from our own fund for educational excursion .

Sir

With reference to the subject mentioned above I am requesting you to release the fund toward the expenditure incurred from our own for educational excursion to Fresh Water Fisheries Research & Training Centre, Kulia, Kalyani, dated 12<sup>th</sup> December, 2022. The details of the expenditure are stated below.

Sl.no.	Purpose	Amount
1	Total fare for 3 teachers and 50 students @70/-	Rs.3710.00
3.	Refreshment for 3 teachers and 50 students @ 10/-	Rs.530.00
	<b>Total expenditure</b>	<b>Rs.4240.00</b>

I am requesting you to pay the above said amount as early as possible.

Thanking you,

Sincerely yours

*A. Mandal*  
07/1/23  
(Anuradha Mandal)  
Department of Zoology  
Kanchrapara College

*To Accountant  
Please take necessary action  
for payment of Rs. 4240.00  
P/Bera  
19/01/23*

Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 Parganas

Zoological Excursion to Fresh Water Fisheries Research & Training Centre Kulia, Kalyani during the academic session :  
Semester-V(CC)

Declaration by the students

I Sri/Smt Sneha Mukherjee a student of Sem V, Zoology Hons/ Programme course (2022) Roll No 377 do hereby declare that I shall abide by the rules/ regulation and instruction as said forth by the principal and executed by the teachers accompanying us and guiding our field trip.

Sneha Mukherjee  
Full signature of student

Declaration by Guardian

Name: Goutam Mukherjee I endorse the above declaration given my word,

Signature with date: Goutam Mukherjee 11/12/22

Address: 4/275 Katabagan, P.O. Beddipukuram, Nadia, PIN- 741250

Contact no.: 9874137853

Appropriate action will be taken against the students for violating rules and instruction for excursion.

Kanchrapara College  
Department of Zoology  
Kanchrapara, North 24 Parganas

Zoological Excursion to Fresh Water Fisheries Research & Training Centre Kulia, Kalyani during the academic session 2022  
Semester- V (CC)

Declaration by the students

I Sri/Smt Saswati Das a student of Sem V, Zoology Hons/ Programme course (2022) Roll No 311 do hereby declare that I shall abide by the rules/ regulation and instruction as said forth by the principal and executed by the teachers accompanying us and guiding our field trip.

Saswati Das  
Full signature of student

Declaration by Guardian

I endorse the above declaration given my word,

Name: Sibu Das

Signature with date: Sibu Das 12-12-22

Address: 341, Millanpagan Masjid Bati Road, Kanchrapara Pin-743145

Contact no.: 9331331490

Appropriate action will be taken against the students for violating rules and instruction for excursion.



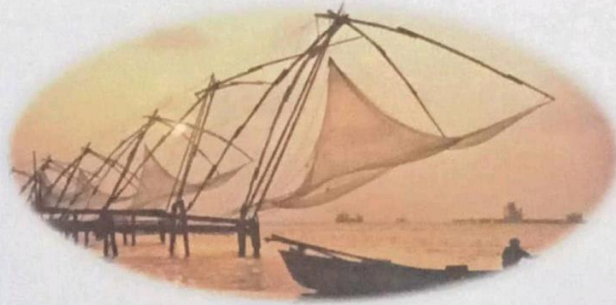
- 1) Aesop Barai. - 491
- 2) Animesh Ghosh. - 324
- 3) Tirtharup Dey. - 488
- 4) Rudra NasKar. - 333
- 5) Sayani Nandi. - 313
- 6) Priyanka Samanta. - 305
- 7) Prodip Kr Roy. - 331
- 8) Monboni Mandal. - 297
- 9) Tarushree Dutta. - 323
- 10) Krishna Ganguly. - 292
- 11) Royel Ghosh. - 489
- 12) Rajita Dey. - 306
- 13) Debiika Adhikary. - 288
- 14) Bipasha Sankar. - 286
- 15) Madhupima Debnath. - 293
- 16) Sayak Adhikary. - 334
- 17) Soumik Adhikary. - 338
- 18) Deep Majumder. - 326

- 19) Krishnakamal Patra. - 323
- 20) Subarna Saha. - 520
- 21) Raktim Khari. - 332
- 22) Saswati Das. - 311
- 23) Shreya Majumder. - 317
- 24) Soumyadeep Bhanja

2) Kanchanpura Station to Kalyani Station - 051-  
3) Kalyani Station to Kulin Fish Farm - 2-1

Name	5th Sem CE	Roll
① Sneha Mukherjee	→	377
② Dipa Some	→	350
③ Anay Mondal	→	387
④ Swaj Biswas	→	421
⑤ Supriyo Ghosh	→	420
⑥ Akash Shaw	→	522
⑦ Dipasree Saha	→	351
⑧ Konkana Biswas	→	521
⑨ Chandan Dhali	→	523
⑩ Anshita Biswas	→	343
⑪ Nitu Das	→	360
⑫ Chandrima Singh	→	347
⑬ Shrimjoy Sengupta	→	484
⑭ Swajan Biswas	→	422
⑮ Dipa Sarkar	→	349
⑯ Deberghya Debnath	→	394
⑰ Sayani Sarkar	→	371
⑱ Debjit Banerjee	→	524
⑲ Shreyas Paul	→	373
⑳ Sneha Das	→	375
㉑ Kumari preeti meena	→	355
㉒ Ayon Mistary	→	303
㉓ Rohit Paul	→	407
㉔ Ankita Sarkar	→	483
㉕ Manojit Paul	→	525
㉖ Arpita Pramanik	→	342
㉗ Subhankar Dutta	→	417

# KANCHRAPARA COLLEGE



## ***“ Field Study on Fish & Fisheries “***

**Registration No :- 019009.**

**Session:- 2020 – ‘ 21.**

**Roll :- 2115120 , No :- 2018890.**

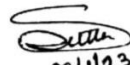
**Stream :- Zoology Honours. (B.Sc. 5<sup>th</sup> Semester).**



## CERTIFICATE OF PARTICIPATION

*This is to certify that the candidate holding  
Registration No - 019001 , Session- 2020 -'21 ,  
University Roll No - 2115120-2018890 , is a  
regular student of B.Sc Honours 5<sup>th</sup> semester in  
(Zoology department) Kanchrapara College ,  
Kanchrapara , North 24 pgs , has participated in the  
excursion to **FRESH WATER FISHERIES RESEARCH &  
TRAINING CENTRE , KULIA , KALYANI** . The student  
was serious in his studies throughout the excursion.*

Signature of the accompanied Teachers :-

  
28/1/23





## PREFACE

*I am presenting a field work report on Fisheries . In this field work I have tried to give all the important things about my field work. This report contains about the excursion in "FRESH WATER FISHERIES RESEARCH & TRAINING CENTRE KULIA , KALYANI " and what we learn from that about sericulture. I have given information in this project by consulting books and useful websites. I have tried to make this report attractive by adding appropriate photographs from our excursion. I have tried my best to avoid mistake. If there is any mistake please avoid it.*

## ACKNOWLEDGEMENT

*We sincerely and honestly acknowledge that the invaluable help rendered by the following persons without whose support we could not have done the report and educationally enriching tour. We express our greatest gratitude and best regards to Anuradha Mandal (HOD), Dr. Sarbani Dutta, Dr. Shatarupa Chakraborty for being the bricks and pillars in all matters related to excursion. We have to again mention excellent spirit of cooperation extended by Mrs. Anuradha Mandal head of the department Zoology Kanchrapara College towards fulfilment of our requirements for the excursion.*

*Aesop Barai.....*

*Signature of the student*

.....

*Signature of the Teacher*

## INDEX

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1.	<i>Excursion &amp; purpose of excursion</i>	06
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3.	<i>Our Team</i>	12
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### **What is excursion**

*An excursion is a trip by a group of people, usually made for leisure, education, or physical purposes. It is often an adjunct to a longer journey or visit to a place, sometimes for other typically work. It helps in developing cooperative attitude and various others. - related purposes. Short excursions for education or for observations of natural phenomena are called field trips. One-day educational field studies are often made by classes as extracurricular exercises, e.g. to visit a natural or geographical feature.*

### **Purpose of excursion**

- 1. They provide direct source of knowledge and acquaint the student with first hand information.*
- 2. They provide an opportunity to the student for development of his aesthetic scene.*
- 3. By such excursion students become interested in the exploration of their environment.*
- 4. They help to develop in students a love for nature and to acquaint them with the real happiness in the outside world.*





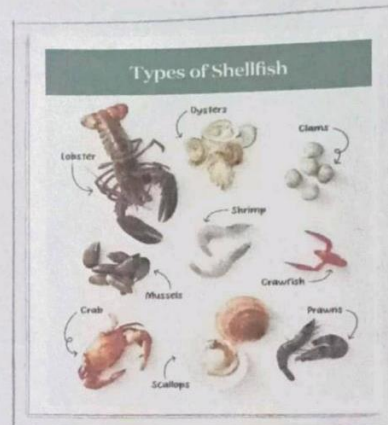
Fishing à'màn Part of  
Fisheries

## **Introduction**

*India is the third largest fish producing country and the second largest aquaculture fish producer in the world. India contributes about 7% to the global fish production. The country is also home to more than 10% of the global fish biodiversity and is one of the 17-mega biodiversity rich countries. Around 14 million people are engaged in fisheries and its allied activities. Andhra Pradesh is the largest fish producer in the country followed by West Bengal and Gujarat. The total fish production during 2017-18 is estimated to be 12.60 million metric tonnes, of which nearly 70% is from inland sector and about 50% of the total production is from culture fisheries. More than 50 different types of fish and shellfish products are being exported to 75 countries around the world.*

**Fisheries** is an economic activity that involves harvesting fish or any aquatic organism from the wild (Capture Fisheries) or raising them in confinement (Culture Fisheries/ Aquaculture). It may be Traditional/ Small Scale Fisheries (SSF) for sustenance, or Large-Scale/ Commercial Fisheries for profit.

**Fish** (in general) is a cold-blooded aquatic organism that breathes with gills and swims with fins; they are



Shellfish

categorized as Finfish and Shellfish.

**Finfish** are cold-blooded aquatic vertebrates that have gills, fins with rays, and scales covering the body.

**Shellfish** are cold-blooded aquatic invertebrate that have gills, various types of locomotory organs and a shell/ exoskeleton covering the body. They include crustaceans and mollusc.

### **Categorization of Fish by their habitat :-**

**Freshwater Fish** :- Fish that spend most or all of their life in freshwaters, such as rivers and lakes, having a salinity of less than 0.5 ppt. Around 40% of all known species of fish are found in freshwater.

They may be divided into 4 types. These are –

- **Coldwater Fish** ( $5^{\circ} - 20^{\circ} \text{C}$ ). **examples** :- Mahseer, Trout, etc.
- **Warmwater Fish** ( $25^{\circ} - 35^{\circ} \text{C}$ )- **example** :- Carps, Catfish, Snakeheads, Featherbacks, etc..
- **Brackishwater Fish** Fish that can tolerate a wide range of salinity (0.5 – 30.0 ppt ) and live in backwaters, estuaries and coastal waters. **Example** :- Mullet, Milkfish, Seabass, Pearlsip, Mudskipper, etc.
- **Marine Fish** Fish that spend most or all of their life in seawater, such as Seas and Oceans, having salinity above





Brackishwater  
Fisheries

30 ppt. There are about 240 species contributing to the marine fisheries. **Example :-** Sardines, Mackerel, Ribbonfish, Anchovies, Grouper, Cobia, Tuna etc.

### **Brackishwater Fisheries :-**

India has around 1.2 million ha brackishwater resources comprising of estuaries (deltaic river mouths), coastal lagoons, lakes, backwaters, tidal creeks, canals, mudflats, mangrove plants, etc. These water bodies lying between the freshwater and marine regimes have certain **characteristics :-** (i) fluctuating water level synchronizing with the tides, (ii) wide salinity range of 0-35 ppt, (iii) higher nutrient content and productivity, (iv) serve as nursery grounds for numerous marine organisms, (v) harbour a rich diversity of flora and fauna, and (vi) support artisanal capture fisheries and provide livelihood to the coastal fishers.

### **Mullet :-**

Thirteen species of Mullet are found in India of which eight species contribute to the commercial catches. Mugil cephalus and Mugil parsia are the two cultivable species. They are euryhaline species that tolerate salinity from 0-35 ppt. They are omnivorous in feeding habit. They feed at the lowest trophic levels on plant detritus and algae. **Example :-** Grey Mullet(Mugil cephalus), Goldspot Mullet(Mugil parsia)

### **Bass :-**

Asian Seabass, *Lates calcarifer*, commonly called the Giant Sea Perch is an economically important food fish in the tropical and subtropical regions of Asia and the Pacific. Because of its relatively high market value, it has become an attractive commodity of both large and smallscale aquaculture enterprises.

### **Grouper :-**

There are more than 64 species of groupers found in the Indian waters. Groupers are important and economically valuable aquaculture species in Southeast Asian countries.

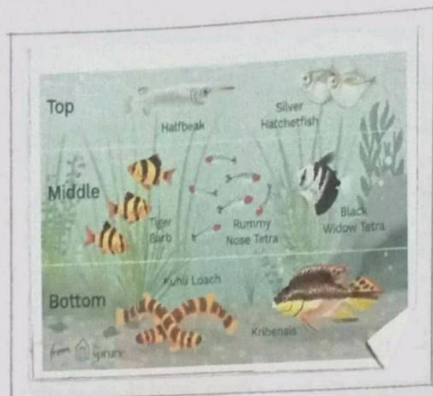
**Example :-** Greasy Grouper (*Epinephelus tauvina*) , Orange-spotted Grouper (*Epinephelus coioides*) .

### **Catfish :-**

*Nuna Tenqara* or the Long Whiskers Catfish, *Mystus gulio*, is a common and popular fish because of its nutritional value and taste. Primarily a brackish water fish that enters and lives in freshwater. In freshwater, adults occur mainly in larger water bodies (rivers and streams) with mud or clay substratum, and rarely found in smaller streams. **Example :-** *Mystus gulio*, *Mystus vittatus*.

### **Marine Fisheries :-**

India has a 8,118 km long coastline stretching along 9



Surface, middle, Bottom  
water fishes



*Maritime States and 4 Union Territories. The nine Maritime States are Gujarat, Tamil Nadu, Kerala, West Bengal, Maharashtra, Odisha, Andhra Pradesh, Karnataka and Goa. The 4 Maritime Union Territories are Daman & Diu, Puducherry, Lakshadweep Islands and the Andaman & Nicobar Islands.*

*The important Marine Fisheries can be grouped into the following categories: **1. Surface-water Fish (Pelagic)** Sardines, Anchovies, Ribbonfish, Mackerel, Seerfish, Tuna, etc. **2. Mid-water Fish (Pelagic)** Bombay Duck, Cobia, Silver Bellies, Horse Mackerel, etc. **3. Bottom-water Fish (Demersal)** Perches, Catfish, Pomfrets, Flatfish, Eels, etc.*

*The important Marine Fisheries can be grouped into the following categories :-*

- 1. Surface-water Fish (Pelagic): Sardines, Anchovies, Ribbonfish, Mackerel, Seerfish, Tuna, etc.*
- 2. Mid-water Fish (Pelagic): Bombay Duck, Cobia, Silver Bellies, Horse Mackerel, etc.*
- 3. Bottom-water Fish (Demersal): Perches, Catfish, Pomfrets, Flatfish, Eels, etc.*



Our team

## **Our team**

### **Teacher :-**

*Mrs. Anuradha Mandal (Head of the Department)*

*Dr. Sarbani Dutta*

*Dr. Shatarupa Chakraborty*

### **Students :-**

*Aesop Barai, Sayani Nandi, Priyanka Samanta, Prodip kr. Roy, Tirtharup Dey, Rudra Naskar, Krishna Ganguly, Koyel Ghosh, Tanusree Dutta, Bipasha Sarkar, Rajita Dey, Moubani Mondal, Madhurima Debnath, Subarna Saha, Debika Adhikary, Animesh Ghosh, Sayak Adhikary, Sounak Adhikary, Raktim Kuri, Saswati Das, Deep Majumder, Krishnakamal Patra, Soumadeep Bhadra, Shreya Majumder.*

**Destination :-** FRESH WATER FISHERIES RESEARCH & TRAINING CENTRE (FFRTC) KULIA, KALYANI

### **Schedule Of Our Journey**

**Started Location:-** From Kanchrapara College.

**Train :-** Gede Local.

**Date of journey :-** 12th December 2022

**Time of the journey :-** 11:00 am



Fresh water Fisheries Research & Training Center  
Wular, Wazirpur



### **Freshwater Fisheries Research & Training centre**

*This training setting up has been carrying out a good number of remarkable research and experimental work encompassing different aspects of Freshwater Fisheries and achieved commendable success which in turn helped the pisciculturists to be acquainted with the sophisticated technology and to utilize their resources upto the optimum level and to exploit the productivity of their resources to the possible maximum extent and the resultant effect made the state in achieving almost self sufficiency in fish production.*

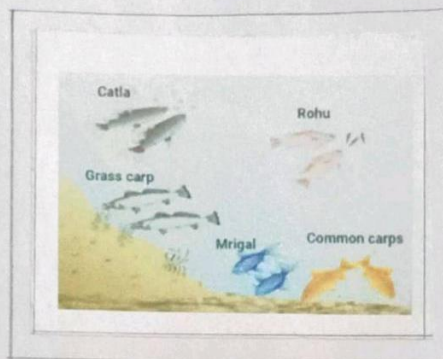
*Freshwater Fisheries Research & Training Station always maintained a good communication with fish farmers though field trial. interaction with the farmers in the classroom through training and in the field and also by publication of leaflets, booklets describing technology and thus lab to land programme achieved remarkable success.*

### **Facilities available at FFRTC**

*The FFRTC is located in a lush green and pollution free campus and a esthetically designed infrastructure .It has well-equipped laboratory , field library hall , boys and girls hostel and modern audiovisual equipment also available.*

*Aquaculture, is the rearing of fish for consumption, think "fish*

*farms." The benefits are many including lessening the environmental impact of fisherman to our oceans and natural fish populations, a readily available source of protein, the beneficial impact on the job market, and many other considerations. I'm confused by your question about classifications of aquaponics. Aquaponics, is the use of aquatic animal waste to fertilize and produce fruits and vegetables. The two can obviously be combined, but could you provide more information about what you mean by classifications of aquaponics.*



Composite fish Culture

## **COMPOSITE FISH CULTURE**

In order to obtain high fish culture production per hector of the water body , fast growing , compatible different species of Indian and exotic carps of different feeding habits are stocked and cultured in the same pond , so that all its ecological niches are utilized by the fishes. This technique of fish culture is called **COMPOSITE CULTURE** or **POLY CULTURE** or **MIXED CULTURE**.

### **Preparation of ponds:-**

According to the depth , a pond can be divided into three distinct zones – **1) Upper surface zone** , **2) Middle column zone** and **3) Bottom zone**. A particular species exploits a particular zone. As a result , the entire ecological area is not used.

The methods adopted in composite fish culture can be broadly divided into **3 Phases**. **A) Pre-stocking management** , **B) Stocking management** , **C) Post-stocking management**.

### **Species combination in composite fish culture**

In composite fish culture, this type of fish combination is rare they are: The Indian Agricultural Research Council has created aquaculture as an indigenous system. It involves a mix



of five to six different fish species, all of which are raised in the same pond. Fish are chosen for their distinct eating patterns and lack of competition. This runs out of all the nutrients in the pond. Rohu, Catla, Mrigal, Grass Carp, and Chinese Carp are common choices. This will increase fish production per hectare.

In composite fish culture fingerlings should be stocked in the following ratio Catla : Rohu : Mrigal : Silver carp : Grass carp : Common carp = 1:2:1.5:2:1.

### **Supplementary feeding :-**

The natural food organism in the ponds may not be sufficient as fish food. The most commonly used mixture of rice bran or rice polish and groundnut or mustard oil cake in 1:1 ratio. A feeding rate 10- 15% of body weight of fish per day up to six months and after 2-3%.

### **Harvesting and Production :-**

Composite fish culture is generally practised at least for 2 months. In this period, generally, catla attains a weight of 1kg; rohu → 600-700 gms; mrigal → 500-600 gms & Silver-carp 1-1.5kg; grass carp → 1.5-2 kg and common carp-3000-4000 kg/ha/yr should be normally expected with the six species.



Induced breeding

### **Induced breeding**

Induced breeding is a technique by which ripe fishes are stimulated by pituitary hormone introduction to breed in captivity. The stimulation promotes a timely release of eggs and sperms from ripe gonads. The active factors like LH and FSH are present in fish pituitary. The process of breeding is also known as **HYPOPHYSATION**.

#### **Procedure:-**

**Collection of pituitary gland:-** Pituitary glands are collected from fully mature fish of both sexes, 0 year: The glands should be collected from freshly killed fish preserved (5-7 days) fish. The glands can be collected from cut fish through foramen magnum or by cutting whole head.

**Preservation of gland:-** immediately after collection, the gland is preserved in absolute alcohol for dehydration and defatting. After 24 hours the alcohol is changed with fresh absolute alcohol. The glands are preserved in dark place.

**Preparation of gland extract:-** Required quantity of glands (10-20 pieces) taken and kept on a filter paper or evaporation of alcohol. Then the glands are grinded in a Tissue homogenizer. Generally 10 mg of gland is dissolved and diluted with 1 ml of distilled water. The content is transferred to a centrifuge tube and centrifuged for 1 - 2 minutes. The supernatant contains hormonal part is drawn into a hypodermic syringe.

### **Factors affecting induced breeding in fishes:-**

Environmental factors like temperature, water condition, light, meteorological conditions etc are important factors controlling the reproduction of fish.

#### **Temperature:-**

1. There is an optimum temperature range for induced breeding of culturable fishes.

#### **Light:-**

1. Light is another important factor controlling the reproduction in fishes.

#### **Hormonal influence:-**

1. Gonadotropins have been found to increase during spawning and decrease afterwards.
2. Due to the presence of females, there is an increase in gonadotropin level in males.
3. FSH and LH have been reported to influence gonadal maturity in carps.

**Homoplastic gland:-** When pituitary gland used for injection is collected from the same species to which it can be administered, is known as Homoplastic gland.

**Heteroplastic gland:-** When pituitary gland used for injection is collected from the other species to which it can be administered, is known as Heteroplastic gland.



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Different types of eco-hatcheries

## **Eco-hatcheries**

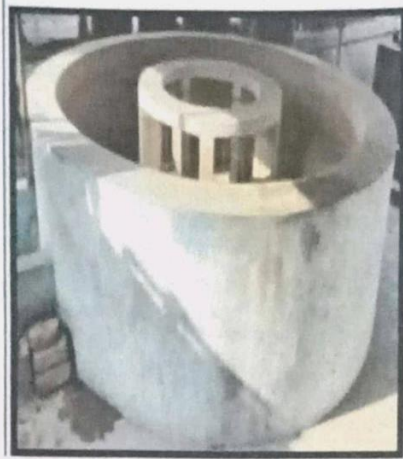
The need for development of hatcheries was emphasized so as to achieve maximum production of fish seed from the huge quantities of eggs produced by the hypophysation technique.

### **Chinese Hatchery for Fishes:-**

Chinese spawning and hatching systems are based on continuous flow of water by gravity to breed carps and hatch the eggs. The cost of construction and operation of a Chinese hatchery is less when compared to any other design for the same production capacity. In India, the Chinese hatchery system is now considered to be highly suitable for the production of quality fish seed. This system is designed for fish breeding and incubation. The duration of one operation for hatching is 4 days. It can be repeated after a period of 4 days.

**Chinese type of Hatchery consists of four main components :-**

**1) Overhead Water Storage Tank:-** The floor of the tank should be 2.6 m above ground level. The inside dimension should be 5.5 x 2.7 x 2.2m and it should have a 30,000 litres capacity. Water supply to the overhead tank should be arranged by pumping water from an open well or a deep tube-well.



Different types of eco-hatcheries



**2) Spawning Pond**:- It is a circular masonry / concrete pond with an inside diameter of 8 m. It has 50 cubic metres of water holding capacity. The inside depth at the periphery is 1.20 m which slopes down to the centre at 1.50 m. A water supply line is laid along the outside of the wall and the inlet to the pond is provided at 14-16 places equally spaced and fixed at an angle of  $45^\circ$  to the radius of the tank using a 20 mm diameter pipe with a nozzle mouth, all arranged in one direction.

**3) Incubation Ponds**:- There are two circular incubation ponds each of 3.6 m internal diameter. There are 2 chambers in each pond. The dimension of the outer chamber is 4 m having an outer masonry / concrete wall. Another circular wall with a fixed nylon screen is provided at 0.76 m clear distance from the outer wall. These tanks are about one metre in depth with 9-12 m<sup>3</sup> of water holding capacity. They hold 70,000 million eggs / m<sup>3</sup>.

**4) Hatchling Receiving Pond**:- This is a rectangular masonry concrete tank. The inside dimensions are 4 x 2.5 x 1.2 m. This is located at a lower elevation than the incubation pond, so as to drain out the water from it by gravity. Fresh water supply from the overhead tank is provided by a 7.5 cm diameter pipe line, bifurcated into 3 numbers of 3cm diameter pipelines. These pipelines are arranged to provide the spray for aeration.



Ornamental fish Culture

## **Ornamental Fish Culture**

*Ornamental fishes can be defined as attractive colorful fishes of peaceful nature that are kept as pets in confined spaces of an aquarium or a garden pool with the purpose of enjoying their beauty for fun and fancy. Ornamental fishes are also called 'live jewels' for their beautiful colors and playful behaviour.*

*In 1951 India the starts the rearing of goldfish. Ornamental fishes of India are contributing about 1% of the total ornamental fish.*

*India has great potentials in Ornamental fish production due to the presence of rich biodiversity of species, favourable climatic conditions and availability of cheap labour. Kerala, Tamil Nadu and West Bengal mainly practice ornamental fish farming in India.*



Aqua Culture



Aquarium fish



## **Aquaculture**

The culture of ornamental fishes is called as aquaculture. Ornamental fish culture is the culture of attractive, colourful fishes of various characteristics, which are reared in a confined aquatic system. Farmers and hobbyists mainly grow it. Ornamental fishes are also known as living jewels. There are more than 30,000 fish species reported around the world, of this about 800 belong to ornamental fishes. Most of the ornamental fishes survive in freshwater.

### **Aquarium fishes:-**

Aquarium fishes are broadly grouped into 2 categories on the basis of their breeding behaviour, viz., egg-layers (oviparous) and livebearers (ovo-viviparous). Egg-layers are further classified as egg-layers with no care (non-guarders), egg-layers with care (guarders), egg buriers, mouth-incubators, nest-builders and egg-carriers on the basis of parental care.

### **Egg layers :-**

Important group of egg-layers are barbs, rasboras, goldfish, tetras, danios, betas, angelfish and gouramis. Among them barb is one of the most important groups. Barbs of Indian origin are rosy barb, striped barb and aruli barb. The major group of danios includes gaint danio, pearl danio and

zebra danio. Among rasboras slender rasbora, glowlight rasbora and scissortail are the important ones. Goldfishes are the most preferred fish for the aquarium keepers. Some common varieties being comet, lion head, oranda, red cap, veil tail, shubunkin, bubble eye etc. The fish grows up to 20 cm in length, but starts breeding when it is only 6 cm long.

#### **Live bearers:-**

They give birth to young ones and reproducing only a few numbers of offspring in comparison to egg layers. Their breeding is relatively easy and development of young ones takes place inside the female, which are released after about 4 weeks. The common livebearers include guppy, black molly, swordtail, and platy. The number of offspring produced by livebearers is between 50-100. If properly fed with natural food, supplemented with better artificial feed, the mortality caused by predation/cannibalism could be checked thereby survival rate of these offspring can be increased.

## **CONCLUSION**

*Excursion broadened our Outlook. We wear experience to cope up different situations working out as a unit. Theoretical Knowledge is not enough to fulfill our knowledge. This excursion help us to know about Fisheries and Aquaculture . We are recharged once again with new interest and enthusiasm. The best memories of the tour has drowned a deep-line in the deepest core of our heart which will remain unchanged till our last breath. Creating some employment opportunities, making business environment, meeting the demand for Fish and fish culture around the globe to some extent in the local and outside market and brokers, investing capital on this project, generating revenues and creating condition for improvement the production of FISH.*

## **REFERENCE**

*Our teachers helps us to complete the report.*

- I. Information from FFRTC.*
- II. We took informations from our guide and the Fishery and researching officers.*
- III. We take information from www.google.co.in.*
- IV. Also Wikipedia.com helps a lot.*
- V. We gain some informations from books and relative data.*



Course Code	Course Title	Total credits (FM)	Total no. of Lectures	Total no. of hours
ZOOL-G-DSE-P-01	Fish and Fisheries Lab	2 (20)	30	60

#### List of Practical

#### List of Practicals

1. Morphometric and meristic characters of fishes.
2. Study of *Petromyzon*, *Myxine*, *Pristis*, *Chimaera*, *Exocoetus*, *Hippocampus*, *Gambusia*, *Labeo*, *Heteropneustes*, *Anabas*, *Echeneis*, exotic carps.
3. Study of different types of scales (through permanent slides/ photographs).
4. Study of crafts and gears used in Fisheries (Pictures/models). Characters.
5. Water quality criteria for Aquaculture: Assessment of pH, DO, free CO<sub>2</sub>, productivity, alkalinity, hardness, chloride (by titration/refractometer).
6. Study of air breathing organs in *Channa*, *Heteropneustes*, *Anabas* and *Clarias*. Drawing with characters.
7. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.

Lab notebook with labelled diagrams, methods and results.

1, 3, 4, 6: Identification with diagram, systematic position (where applicable) and diagnostic characters.

Course Code	Course Title	Total credits (FM)	Total no. of Lectures	Total no. of hours
ZOOL-H-DSE-P-01	Fish and Fisheries Lab	2 (20)	30	60

#### List of Practicals

1. Morphometric and meristic characters of fishes.
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  7. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.
- Lab notebook with labelled diagrams, methods and results.



**Kanchrapara College**  
**Department Of Zoology**  
**Educational Excursion Year 2022-2023**

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**Notice**

**Kanchrapara College**

It is notified for all concerned that an excursion to Kajiranga National Park and Hoollongapar Gibbon sanctuary, [Assam has been arranged for the students of Zoology 2<sup>nd</sup> Semester (Hons) on and from 31/03/2023 to 05/04 2023 as per mentioned in their syllabus.  
Students are requested to contact with concerned teacher and do the needful.

Sd/-  
Anuradha Mandal

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Course Code	Course Title	Total credits (FM)	Total no. of Lectures	Total no. of hours
ZOOL-H-CC-P-03	Perspectives in Ecology Lab	2 (20)	30	60

#### List of Practicals

1. Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided
2. Determination of population parameters (dominance, diversity, frequency) in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index and Importance Value Index for the same community.
3. Study of an aquatic ecosystem: Phytoplankton and zooplankton, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free CO<sub>2</sub>
4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary

1, 2: Theoretical, dry-lab.

4: Major excursion.



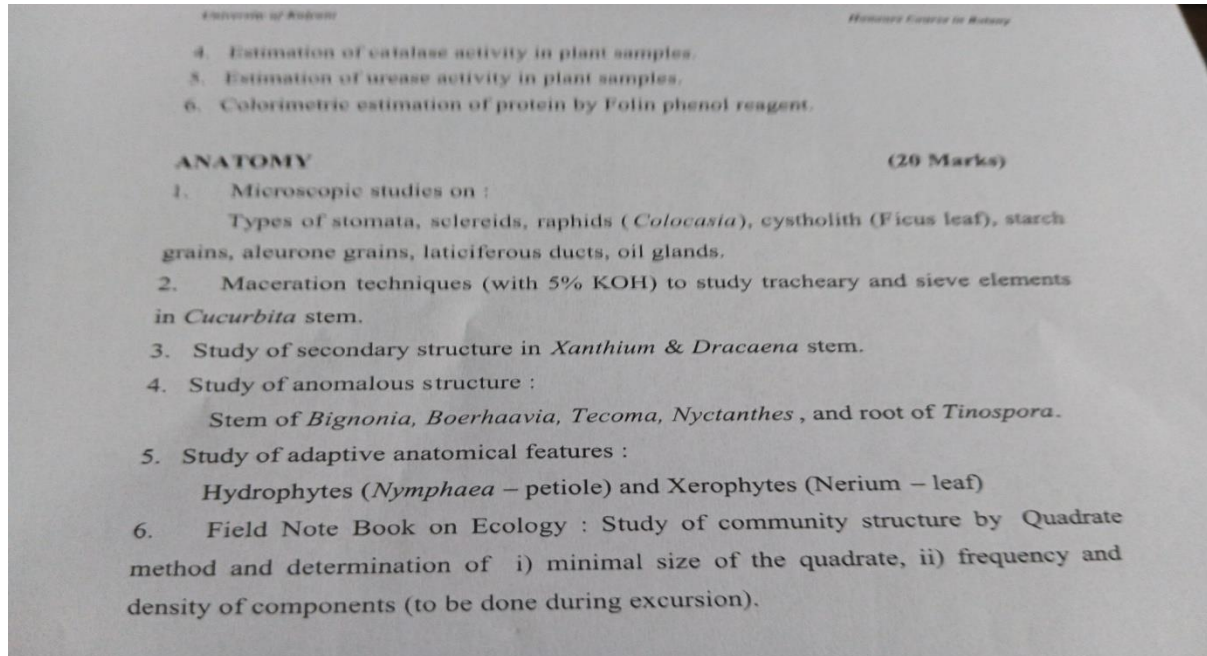




## Department of Botany

### Field Report

Paper-IX (K.U syllabus with effect from the session-2019-2020)



1. Place of visit: Animal Resources Development Department-State Livestock Farm, Govt of West Bengal



2. Place of Visit-Dooars

Date: 4<sup>th</sup> Nov. 2019

Paper-UG-H-BOT-CC-P-08

-UG-H-BOT-GE-P-02







### 3. Session-2020-2021

No Excursion due to Pandemic situation

### 4. Sedssion-2021-2022

Place of visit-Fodder Farm

Date: 16.3.2022

Paper-UG-H-BOT-DSE-P-03





5. Session-2022-2023

Date: 05.01.2023

Place of visit-BSI

Paper:

-UG-H—BOT-CC-P-08

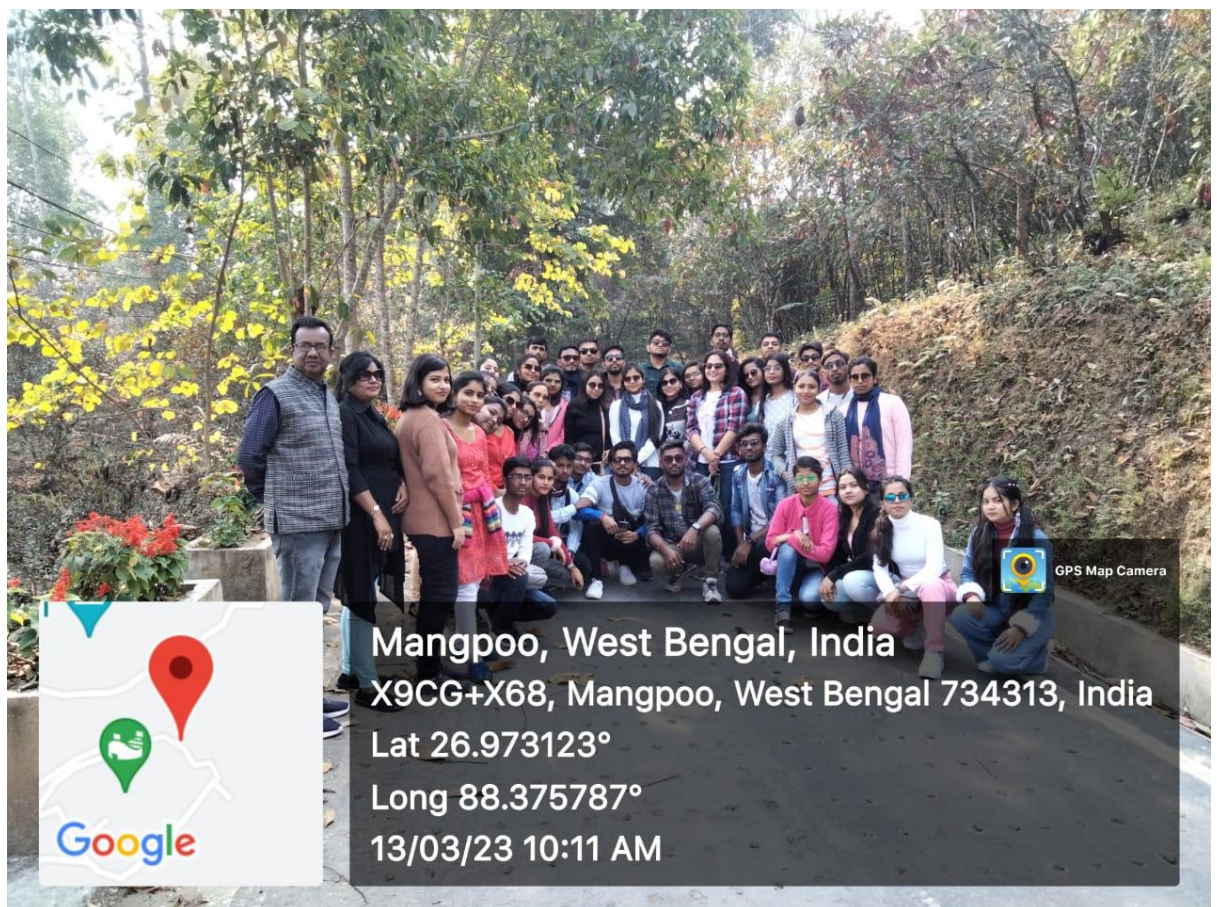
-UG-H-BOT-DSE-T-03







6. Place of visit –Sitong, Lava, Burmik  
 Date of visit: 11.3.2023  
 Paper-UG-H-BOT-DSE-P-03  
 UG-H-BOT-GE-P-02







## **Report on Excursion**

1. Name of the Department: Environmental Science
2. Period of Excursion /Field Work /Project Work: 13/01/2020 to 17/01/2020
3. No. of students participants: 35
4. Place(s) visited: Lataguri – Gorumara, Jalpaiguri, W.B.
5. Title of the Field Work/ Project Work: Ecological field visit forest ecosystem of Lataguri Mouza (Jalpaiguri District) W.B.
6. Paper Title: ENVS-H-CC-05-P: Ecological Field Visit forest ecosystem

Lataguri is located outside the Gorumara National Park on National Highway No. 31. Permits for entering Gorumara and Chapramari Wildlife Sanctuary are given from Lataguri. We also visited the Neora Valley National Park in Kalimpong district, West Bengal, India. The village also contains a "Nature Interpretation Center", which gives information about the flora and fauna of the area.

Conclusions / Suggestion: Inequalities in welfare, health, and safety benefits of tea workers have been found among different categories of tea companies in the study.

Comments / Suggestions: The type of excursion / Educational tour is very helpful for the students to absorb the actual learning through practical experience







0/c

Expenditure of Part I, Part-II and Part-III (Hons) Students' Excursion:

Department of Environmental Science

➤ Field study to the Garumara National Park and Neora Valley National Park, West Bengal  
(13<sup>th</sup> to 18<sup>th</sup> January, 2020)

Sl. No.	Details	Expenditure (₹)
1	Train fare of 35 students @ ₹ 680.00	23,800.00
2	Train fare of 3 faculty members & 1 staff @ ₹ 680.00	2,720.00
3	Package cost (including food, lodging & car) for 35 students @ 5900.00	2,06,500.00
4	Package cost (including food, lodging & car) for 3 faculty members + 1 staff @ 5900.00	23,600.00
5	Miscellaneous (Medicines, Package drinking water bottles, Cakes, Biscuits, etc)	734.00
Total		2,57,354.00

Total contribution by 3 faculty members and 1 staff = ₹ (2720.00 + 23,600.00) = ₹ 26,320.00

All original bills, Railway Tickets, Permits are attached herewith....

Piyal Bhattacharya  
2 Feb' 20  
(Piyal Bhattacharya)

Received  
M  
01/02/20



Sl. No.

636

## BUILD

Mob 96098 10946

70766 67255

ARANNYA BHAWAN

E-mail: [arannyabhawanresort@gmail.com](mailto:arannyabhawanresort@gmail.com)

Website: [www.aranniybhawanjaldipara.com](http://www.aranniybhawanjaldipara.com)




Hoang Pham Kyvanh, Near Junction 80, Highway 04, Vinh City, V.A.

Name Dept. of Environmental Science, Kanchrapur College

Address 24 Parganas (N)

Date 18.01.2020

Sl. No.	Particulars	Rate	Amount Rs.	P
	<p>Arrival date: 14.01.2020</p> <p>Departure date: 17.01.2020</p> <p>No. of guests = 39</p> <p>Feeding &amp; lodging @ 5900.00 for 3 days for 39 guests</p> <div style="text-align: center;">  </div>	2,30	100	—
Date: 17.01.2020				
Receiver's Signature		TOTAL	2,30,100	—

(Rupees in words) Two lakh thirty ARANNYA BHAWAN Signature  
thousands and one hundred only J.D. ARA 12/01/2020  
08250293639

U8250293630

Signature \_\_\_\_\_  
13/01/2020

13/01/2020













		<b>शुभ यात्रा HAPPY JOURNEY</b>		<b>Helpline No. 138</b>	
<b>PNR/Arrival/Departure No.</b> 130				<b>F</b> टिकट नं. TICKET NO <b>26583218</b>	
<b>पी.एन.आर. नं./PNR NO.</b> SAC:996421 GSTIN-IR:19AAAG00209E1Z6 STATE OF SUPPLY:19 WEST BENGAL		<b>जरी नं.</b> TRAIN NO		<b>तारीख</b> DATE	
		<b>कि मी</b> K.M		<b>वयस</b> ADULT CHILD	
<b>श्रेणी/CLASS</b> <b>673-697B034</b>		<b>13141</b>		<b>13-01-2020 616 6 0</b>	
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<b>कोच/सीट/बेथ</b> SEALDAH		<b>आयु</b>		<b>आयु</b>	
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<b>S5 26 MR F 19</b>		<b>Rs. TWO ZERO FOUR ZERO ONLY</b>			
<b>S5 27 LB F 18</b>		<b>VALID WITH ORIGINAL ID</b>			
<b>S5 28 LB F 18</b>					
<b>S5 29 MR F 19</b>					
<b>S5 30 LB F 18</b>					
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<b>721 15-11-2019 14:52:02 RYA 1 VIA MH -RDC -AZ -NFK -PILDT-NAT</b>					
<a href="http://www.er.indianrailways.gov.in">www.er.indianrailways.gov.in</a>					



एक कदम स्वच्छता की ओर

**शुभ यात्रा HAPPY JOURNEY**



**Hotline No. 138**

**PNR/Arrival/Departure No.139**

**F** टिकट नं. **TICKET NO.**

**पी.एन.आर. नं./PNR NO.**

गाड़ी नं. **TRAIN NO.**

तिथि **DATE**

कि.मी. **K M**

यात्राकर्ता **ADULT**

बच्चे **CHILD**

**26583219**

**SAC:996421 GSTIN-IR:19AAAGM0289C17G STATE OF SUPPLY:19 WEST BENGAL**

**श्रेणी/CLASS**

**653-6978060**

**13150 17-01-2020 622 6 0**

**JOURNEY CUM RESERVATION TICKET**

**PNR-CAL**

**राया न्यू माल जं. सिवालदह**

**कांचनकुल्या एक्सप्रेस**

**NEW MAL JN**

**SEAL DOWN**

**RESERVED**

कोच	सीट/बर्थ	लिंग	आयु	यात्रा अधिकार	सिवालदह	आ रा	रा.रा	रा.आ	कांचनकुल्या	कु. नकद
COACH	SEAT/BERTH	GENDER	AGE	T.AUTHORITY	CONC.	R.FEE	S.CH.	SF.CH.	VOUCH.	Rs. T.CASH Rs.
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S1	19 UB	F	19							
S1	20 LB	F	18							
S1	21 MB	F	18							
S1	22 UB	F	19							
S1	24 SU	F	18							

**RS.100 ZERO FOUR ZERO ONLY**

**VALID WITH ORIGINAL ID**

**KANCHANKANYA EX BRD NEW MAL JN**

**SCH DEF 17-01 18:47 ARR 18-01 08:20**

**564 15-11-2019 14:52:22 KPA 1 VIA SGLT-HAF -MLDT-FPH -BWN -DKAE**

**www.er.indianrailways.gov.in**

ERPO118







06 December, 2019

To  
The Principal  
Kanchrapara College

Subject: Request to permit excursion for the Environmental Science (Hons) students

Respected Sir,

As per the Kalyani University prescribed CBCS syllabus for Environmental Science (Hons), the students are required to perform an excursion. You are thus requested to give permission for an excursion to Garumara National Park and surrounding natural spots (Jalpaiguri district, West Bengal) from 13-17 January, 2020.

In this connection, you are requested for necessary financial assistance to conduct the excursion smoothly.

With regards,

  
GDC/19

<PIYAL BHATTACHARYA>

Granted  
06/12/19

Principal  
Kanchrapara College  
Kanchrapara, 24 PPs (N)

# Kanchrapara College

ESTD : 1972



☎ : STD-033 2585 5159 / 8790  
2876 1587 (Offi.)

website : www.kpcoll.net  
e-mail : info@kpcoll.net  
e-mail : principal@kpcoll.net

From :

Ref. No. :

P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

Date :

## Educational Excursion 2019-2020 Department of Environmental Science

Sl. No.	Name	Parent Mob No.	Sl. No.	Name	Parent Mob No.
1	Tarun Kanti Dutta	9007743703	21	Prodipti Saha	8777233266
2	Biswajit Kar	9732071044	22	Puja Barman	9883781972
3	Pallabi Das	6290338839	23	Swagata Sarkar	6291972272
4	Saswati Ghosh	8927517629	24	Debadrati Biswas	9433757186
5	Agni Shankar Saha	8145925067	25	Soumen Banerjee	9038904697
6	Sayandip Roy	8900177060	26	Shromona Dey	7365840207
7	Susmita Sarkar	8617573649	27	Adity Sarkar	7595865348
8	Susmita Bhowmik	9748659169	28	Payel Das	8017555839
9	Arunima Saha	9153181209	29	Sneha Bhowmik	9432334162
10	Barnali Sikdar	9083814024	30	Nitika Sharma	8443987699
11	Sanchari Mondal	8001203273	31	Deyasine Sinha Roy	9153699971
12	Satavisha Banik	9875353051	32	Rashmoni Biswas	9230380731
13	Avishikta Aich	9903332235	33	Suparna nandy	7699365559
14	Rudrani Bhattacharya	7890562977	34	Arundhuti Pradhan	8101482505
15	Soumidipa Chatterjee	9433390744	35	Biswadeep Pramanik	9333669586
16	Rima Biswas	7797042732	36	Arijit Saha	8637379115
17	Anushka Das	8637543080	37	Yeasin Mondol	8768287025
18	Archismita Biswas	8902036618	38	Parvej Mondal	8509684969
19	Parna Paul	9775090103	39	Rebanta Raha	8910271763
20	Debashuriti Banerjee	9007824101			

Timeline: 13<sup>th</sup>-17<sup>th</sup> January, 2020

Excursion spot: Garumara National Park and adjoining natural spots of Jalpaiguri district (West Bengal)

Tour operator: Mr. Bakul Roy, Aranya Bhavan, Madarihut, Alipurduar,  
(Mobile:9609810946/8250293639)

*Pranab Kr. Bera* 4/1/2020  
(Dr. Pranab Kr. Bera)  
Principal  
Kanchrapara College  
Kanchrapara, 24 Parganas



## Students' Excursion 2019-2020 for students of Department of Environmental Science

Stay at: Hotel Banante, Lataguri and Hotel Sayan  
Contact person: Mr. Bakul Roy (Mob: 96098 10946)

Date	Program
13 Jan	Assemble <b>within 12:00 noon</b> in front of the main RPF booth at Sealdah station
	Departure by <b>13141 Teesta Torsa Express</b> at 1:40 pm
14 Jan	Arrival at New Mal Junction station at 4:22 am; Transfer to Hotel
14-17 Jan	<ul style="list-style-type: none"> <li>➤ Garumara National Park Forest safari: study of forest ecosystem</li> <li>➤ Visit to Neora Valley National Park</li> <li>➤ Visit to Chhagey waterfall: collection and identification of rock samples</li> <li>➤ Visit to Rishop: Herbarium plant collection and Quadrante study</li> <li>➤ Socioeconomical study at Lava (if possible)</li> </ul>
17 Jan	After breakfast transfer to New Mal Junction station
	Departure by <b>13150 Kanchankanya Express</b> at 6:47 pm
18 Jan	Arrival at Sealdah at 8:20 am

Package Cost: Rs. 5900.00 per head  
Train fare: Rs. 680.00 per head

PACKAGE COST INCLUDES	PACKAGE COST EXCLUDES
<ul style="list-style-type: none"> <li>➤ All sightseeing by car/ bus as per tour program mentioned above</li> <li>➤ Breakfast, Lunch, Snacks &amp; Dinner</li> <li>➤ Service of a Tour Manager</li> </ul>	<ul style="list-style-type: none"> <li>➤ All personal expenses</li> <li>➤ Entry fee of camera</li> <li>➤ Anything which is not included in the "PACKAGE COST INCLUDES" BOX</li> </ul>



# Kanchrapara College

ESTD : 1972



☎ : STD-033 2585 5159 / 8790  
2876 1587 (Offi.)  
website : www.kpcoll.net  
e-mail : info@kpcoll.net  
e-mail : principal@kpcoll.net

P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

No. :

Date :

Date: 4<sup>th</sup> January, 2020

## To whom it may concern

A batch of 35 students of 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> year B.Sc. in Environmental Science (Honours) is going to make a visit to the Gorumara National Park, Neora Valley National Park, Changey Waterfall, Rishop canopy hanging bridge, lava monastery and Gorubathan adjoining sites from 13.01.2020 to 18.01.2020, as compulsory part of their University prescribed syllabus. The students will be guided by Dr. Biswajit Kar, Ms. Pallabi Das, Ms. Saswati Ghosh and Mr. Tarun Kanti Dutta, Department of Environmental Science, Kanchrapara College, West Bengal.

It would be highly appreciated if they are extended assistance either moral or material in case of emergency situation, if any during their journey and stay at North Bengal.

(Dr. Pranab Kumar Bera)

Principal

Kanchrapara College

Principal  
Kanchrapara College  
Kanchrapara, 24 Pgs (N)

**UG-ENVS-H-CC-P -05**

**CREDITS: 2**

**Practical:**

- Qualitative and quantitative analysis of planktons of aquatic systems.
- Determination of species, dominance and frequency using quadrat/ plot method.
- Determination of dissolved oxygen, free carbon dioxide and primary productivity of water samples collected from aquatic ecosystems.

✓ Ecological field visit: pond/forest/river/wetland or other ecosystem.



2019-2020

To  
The Principal,  
Kanchrapara College,  
Kanchrapara,  
North 24 Parganas



(Through Head of the Department of Botany)

Sub: Excursion to ~~Doodh~~ for the Hons students of Botany

Respected Sir,

We, the Hons and General students of Botany are intending to visit Sikkim in the 1st week of November 2019. The excursion is in conformity with the Syllabus. So, we request you to please release the necessary fund and sanction the permission to make the excursion programme a grand success.

With regards

- 187 Piu Mondal (3rd yr Hon)  
197 Sujoyadeep Guha (3rd Yr Hons)  
207 Riya Sankar (3rd Yr Hons)
- 1) Pradipta Kundu (GE)  
2) Dipannita Garvia (C.C)  
3) Barnali Roy (C.C)  
4) Anab Sugata (C.C)  
5) Asin kr. Sadhukhan (C.C)  
6) Bipra Biswas (G.F)  
7) Anwesha Ghosh (G.E)  
8) Yeasin Mondal (G.E)  
9) Payel Das (G.E)  
10) Soumita Sankar (C.C)  
11) Sahil Mallick (C.C)  
12) Anindam Sankar (C.C)  
13) Nitika Sharma (G.E)  
14) Debdeep Basak (C.C)  
15) Anindam Singh (G.C.C)  
16) Arunima Karmakar (C.C)  
17) Pijush Tharma (C.C)  
18) Adity. Sikdon. (G.E)

Samin Datta  
HOD  
Department of Botany

Granted  
01/11/2019

Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist. - 24 Pgs. (N)

2019-2020

- 17> Shreya Barak (cc)
- 22> Puja Barak (cc)
- 23> Mithila Sankar (cc)
- 24> Rila Sarkar (cc)
- 25> Titli Chakrabarty (cc)
- 26> Debarmita Bhattacharya (cc)
- 27> Trina Das (cc)
- 28> Sayantika Kundu (cc)
- 29> Abhinava Sankar (Hons)
- 30> Sayani Mondal (Hons)
- 31> Ishika Biswas (Hons)
- 32> Menisha Bose (Hons)
- 33> Sohini Sarkar (Hons)
- 34> Pija Ghosh (Hons)
- 35> Sandhya Bhattacharya (Hons)
- 36> Sandhya Bhattacharya (Hons)
- 37> Subhasish Das (Hons)
- 38> Pratim Paul (Hons)
- 39> Souparna Mahato (Hons)
- 40> Sayani Mitra (Hons)
- 41> Amarendra Biswas (Hons)
- 42> Shantanu Biswas (Hons)



Grantee

P/Bera  
01/11/2019

Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist. - 24 Pgs. (N)



2019-2020

To,

The Principal

Kanchrapara College

Kanchrapara, North 24 Pgs.

**Subject-** Humble prayer for visit to the State Live Stock Farm, Kalyani

Respected Sir,

I would like to inform you that our students are intending to visit the State Livestock Farm, Kalyani on 2<sup>nd</sup> week of January, 2020. This visit is included with Botany Honours syllabus of University of Kalyani.

So, I am requesting you to give me the permission to go to the Live Stock Farm, Kalyani.

Thanking You,

Yours faithfully

*Samir Datta*  
Samir Datta

(H.O.D.) Department of Botany



*Grantee*

*P. Datta*  
14/01/2020

Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist.- 24 Pgs. (N)

2021-2022

To,  
The Principal  
Kanchrapara College  
Kanchrapara, North 24 Pgs.

Subject- Humble prayer for visit to the State Live Stock Farm, Kalyani

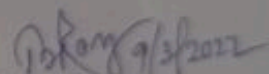
Respected Sir,

I would like to inform you that our students are intending to visit the State Livestock Farm, Kalyani on 16<sup>th</sup> March, 2022. This visit is included with Botany Honours syllabus of University of Kalyani.

So, I am requesting you to give me the permission to go to the Live Stock Farm, Kalyani.

Thanking You,

Yours faithfully

  
Barnali Roy

Department of Botany



*Grantee*  
*Prerna*  
*09/03/22*

Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist. - 24 Pgs. (W)

027 2023

To  
The Principal,  
Kanchrapara College,  
Kanchrapara, North 24 Pgs.  
Through IQAC- Co-ordinator

**Subject:** Humble prayer for visit to the Shibpur Botanical Garden.

Respected Sir,

I would like to inform you that our students are intending to visit the Shibpur Botanical Garden on 28<sup>th</sup> November, 2022. This visit is included with Botany Hons syllabus of University of Kalyani.

So, I am requesting you to give me the permission to go to the Botanical Garden.

Thanking You,  
Yours faithfully,

Barnali Roy 18/11/2022  
H.O.D.  
Department of Botany

Forwarded to Principal  
18/11/2022

IQAC  
Kanchrapara College  
Kanchrapara, 24 Pgs.



2022 - 2023

To  
The Principal,  
Kanchrapara College,  
Kanchrapara, North 24 pgs.

Through IQAC Coordinator

Respected Sir,  
*Sub: Educational Excursion to Burnik, Lava & Rishop*

I would like to bring your kind attention that our students of Botany Hons are very intending to visit Burnik, Lava & Rishop. These area are rich with multiple floras and this excursion is in conformity with the Hons syllabus of K.U.

So, I am requesting you to please give me the permission for Botanical excursion.

Thanking you  
Yours faithfully  
*B.M.*  
Barnali Roy 11/02/2023

*Heen*  
*Don*  
11/02/23  
*Sanjeev*  
11/02/23  
Principal  
Kanchrapara College  
Kanchrapara. 24 Pgs IN

IQAC  
Kanchrapara College  
Kanchrapara, 24 Pgs. IN



To

The principal,

Kanchrapara College, Kanchrapara.

Sub: Application for Environmental Science excursion of B.Sc. 2<sup>nd</sup> Year honors students

Respected sir,

We the students of 2<sup>nd</sup> year (H), department of Environmental Science of your college want to inform you that we are organizing an educational tour as according to our syllabus and chosen to go to **Lataguri Mouza (Jalpaiguri District) W.B.** We are seeking permission from you to comments our educational tour on 13/01/2020 to 17/01/2020.

We shall be highly obliged if you permit us for the educational tour as soon as possible.

Thanking you

Date: 03.01.2020

Yours Faithfully

Place: Kanchrapara

Students of 2<sup>nd</sup> year honors

Department of Environmental Science, Kanchrapara college

Permitted  
P.K. Bera  
03.01.2020  
Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist. - 24 Pgs. (N)

# Kanchrapara College

ESTD : 1972

☎ : STD-033 2585 5159 / 8790  
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website : www.kpcoll.net  
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e-mail : principal@kpcoll.net

From :



P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

Ref. No. :

Date :

To,  
The Principal  
COM & JNM hospital  
Kalyani, Nadia

Dated : 30/11/18

SUB: Application for seeking permission for hospital visit by the students of Kanchrapara College Department of Food & Nutrition

Respected Sir,

This is to state that the students of third year, department of Food & Nutrition, Kanchrapara College, wish to visit your hospital on 11/12/18 and 12/12/18 as per their syllabus curriculum. The number of students is 20 (twenty).


The purpose of this visit are-

1. To collect data regarding the patient's medical and dietary history by questionnaire method
2. To check the vitals of the patients including BMI and Ideal Body Weight by anthropometric measurements
3. To provide dietary guidelines

Your kind permission and cooperation will facilitate the students and make their project successful. Please do the needful for pursuing this visit.

Thanking You,

Yours Sincerely,

  
Dr. Pranab Kumar Bera  
Principal  
Kanchrapara College

# Kanchrapara College

ESTD : 1972

STD-033 2585 5159 / 8790  
2876 1587 (Offi.)  
website : www.kpcoll.net  
e-mail : info@kpcoll.net  
e-mail : principal@kpcoll.net

From :



P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

Ref. No. :

Date :

To,  
The Principal  
COM & JNM hospital  
Kalyani, Nadia

7/12/18

2637

Dated: 7/12/18

SUB: Application for seeking permission for hospital visit by the students of Kanchrapara College Department of Food & Nutrition

Respected Sir,

This is to state that the students of third year, department of Food & Nutrition, Kanchrapara College, wish to visit your hospital on 11/12/18 and 12/12/18 as per their syllabus curriculum. The **number of students is 20 (twenty)**. They will perform their activities under the guidance of Chitralekha Mukherjee, faculty Head, department of Food & Nutrition, Kanchrapara College.

The purpose of this visit are-

1. To collect data regarding the patient's medical and dietary history by questionnaire method
2. To check the vitals of the patients including BMI and Ideal Body Weight by anthropometric measurements
3. To provide dietary guidelines

Your kind permission and cooperation will facilitate the students and make their project successful. Please do the needful for pursuing this visit.

The list of the students are enclosed herewith as annexure.

Thanking You,

Yours Sincerely,

Allowed  
no financial  
inspection

7/12/18  
Principal  
College of Medicine & JNM Hospital  
WBHS, Kalyani, Nadia

Dr. Pranab Kumar Bera  
Principal  
Kanchrapara College

Dated: 18/01/2019

To,  
The CDPO  
ICDS Project  
Kanchrapara U,  
Kanchrapara  
24 parganas(N)

**SUB: Permission for the visit to ICDS centre for the student of kanchrapara College**

Respected Madam,

I would like to request that the students of kanchrapara college, department of Food & Nutrition second year wish to visit your centre for the partial fulfilment of second year practical examination.

The aim of this visit will be the assessment of nutritional & health status and to know the dietary pattern of the children.

Students will examine the children by following ..

- The HEIGHT & WEIGHT of each student
- CHEST,ARM,HEAD,MID-UPPER ARM CIRCUMFERENCE
- SKIN EXAMINATION
- TEETH CHECKING
- Presence of any physical ailments
- Presence of any nutritional deficiency
- Dietary pattern

Your kind permission and cooperation will help the student for pursuing their examination.

Thanking You.

Yours sincerely,

  
18/01/19  
**CHITRALEKHA MUKHERJEE**

**Head, Department of Food & Nutrition**



To  
The Principal  
Kanchrapara College  
Kanchrapara, 24 pgs (N)

[Through IQAC]

Date: 30.08.2022

Sub: Asking permission for organizing an awareness programme on 'Menstrual hygiene' among school students on the occasion of 'National Nutrition Month', 2022, on 13.09.2022

Sir,

On the occasion of 'National Nutrition Month', 2022, I am informing you that the Department of Food and Nutrition will organize an awareness program on 'Menstrual hygiene' among school students (Kanchrapara Municipality Polytechnic School for Girls).

The fifth-semester students of our department will present a lecture (using a model they made) on menstrual hygiene to the students of classes VII and VIII of the school, since this age group experiences menarche. They will distribute sanitary napkins (two pads for each student) at the end of the event.

The approximate expenses to conduct that event is Rs. 2,000/- .

I'll be thankful if you kindly give the permission to conduct the above mentioned event.

Sincerely yours,

Ankita Chakraborty 30/8/22

Dr. Ankita Chakraborty  
HOD/ Departmental In-charge  
Department of Food and Nutrition  
Kanchrapara College

Forwarded to Principal  
01/09/22

IQAC  
Kanchrapara College  
Kanchrapara, 24 Pgs (N)

Principal  
11/9/22

Principal  
Kanchrapara College  
Kanchrapara, 24 Pgs (N)

# Kanchrapara College

ESTD : 1972



☎ : STD-033 2585 5159 / 8790  
2876 1587 (Offi.)  
website : www.kanchraparacollege.ac.in  
e-mail : info@kpcoll.net  
e-mail : principal@kpcoll.net

From :

P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

Ref. No. :

Date :

To,  
Officer-in-charge  
COM & JNM hospital  
Kalyani, Nadia

Dated: 30/11/22

SUB: Application for seeking permission for hospital visit by the students of Kanchrapara College Department of Food & Nutrition

Respected Sir,

This is to state that the students of 5<sup>th</sup> semester, department of Food & Nutrition, Kanchrapara College, wish to visit your hospital for different case study (both indoor and OPD) as per their syllabus curriculum. The **number of students are 22 (twenty two)**. They will perform their activities under the guidance of Chitralekha Mukherjee, faculty, department of Food & Nutrition, Kanchrapara College.

The purpose of this visit are-

1. To collect data regarding the patient's medical and dietary history by questionnaire method
2. To study different patient's profile and physiological conditions
3. To plan a proper dietary guidelines.

Your kind permission and cooperation will facilitate the students and make their project successful. Please do the needful for pursuing this visit.

Thanking You,

Yours Sincerely,

*Pranab Kumar Bera* 29/11/22

Dr. Pranab Kumar Bera  
Principal  
Kanchrapara College

# Kanchrapara College

STD-033 2585 5159 / 8790  
2876 1587 (Offi.)

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e-mail : info@kpcoll.net  
e-mail : principal@kpcoll.net

ESTD : 1972



From :

P.O. : KANCHRAPARA  
DIST. : NORTH 24 PARGANAS  
WEST BENGAL, PIN-743145

Ref. No. : ke/HM/KHS/visit/FN/2023-48

Date : 13-7-23

To  
The Head Master  
Kanchrapara High School  
Kanchrapara, 24 pgs (N)

Date:

Sub: Request for permission <sup>to</sup> for visit at your school of our 4<sup>th</sup> semester's students

(Food & Nutrition Department)

Sir,

With due respect, I am requesting you for permission to visit of 4<sup>th</sup> semester students of the Department of Food & Nutrition on 14.07.2023 (From 11:30 a.m. to 1:30 p.m.) at your school. As per the University curriculum, the visit is necessary for the practical paper on "Community Nutrition & Epidemiology" ( F & N-H-CC-P-9: Visit to old age/ ICDS centre/ Nutritional Rehabilitation Centre/ Slum area/ Any Public place and report preparation on nutritional status and health concern). 15 students, 4 teachers of the department will go to your school for measuring the growth and development of the students (8-10 years of age) for making a report on nutritional status assessment. A list of students of our college be attached herewith.

You kindly give permission for the above-mentioned visit.

Thanking you.

Sincerely yours,

*Dr. Pranab Kr. Bera*  
13/07/23

Dr. Pranab Kr. Bera Principal  
Principal Kanchrapara College  
Kanchrapara, 24 Pgs (N)  
Kanchrapara College  
Kanchrapara, 24 pgs (N)

*Received*

*Arup Kumar Ghosh*  
13.07.2023.

Arup Kumar Ghosh  
(M.A.(Double) Eng. & Edn, B.Ed.)  
Headmaster & Secretary  
Kanchrapara High School (H.S.)  
(Govt. Sponsored)  
Kanchrapara, North 24 Pgs, 743145

To,

The Principal  
Kancharapara College  
24 Parganas North  
West Bengal

**Date: 03.08.2023**

**Subject: Permission for case study**

**Respected sir/madam,**

This is to state that we wish to send the 4<sup>th</sup> semester students of department of Food and Nutrition to Renaissance Hospital Pvt Ltd, Tegharia, Nazrul Islam Avenue ( vip road) kolkata – 700157, for studying in-house patients. **The number of students are fourteen (14).** We will make four groups for 14 students

**Purpose of this visit are :**

1. To collect diagnostic report as per patients condition
2. To get idea regarding hospital admitted patients
3. To acquire knowledge regarding system that follow to record patient's history

For that we require four days to accomplish the above-mentioned purpose. We wish to complete this project from **08.08.2023- 11.08.2023.**

Your kind permission will help students to pursue their degree and give practical knowledge regarding hospital and patients.

Yours sincerely

Chitrallekha Mukherjee.

Chitrallekha Mukherjee  
Head/Department in charge  
Kancharapara College

*03/08/23*

*Dean approved -*  
*03.08.23*



To

The Teacher- In-Charge

Kanchrapara College

Kanchrapara, 24 Pgs (N)

Sub: Asking for permission of educational excursion in the Geography department.

Respected Sir,

You will be pleased to note that department of Geography will going to arrange the educational excursion (for field work, mentioned in paper XI, group-B) at **JALPAIGURI/ KALIMPONG/DARJEELING**( any one place) and adjoin region on the middle of November, 2018.

I shall be highly obliged if you kindly allow this tour. The list is enclosed here with the name of participating students, teachers, staff, GB copy, and university syllabus and students applications.

Thanking you.

- i) Three teacher (one female)
- ii) One non teaching

*Amanda Kumar Halder*  
yours faithfully *06/9/18*

(HOD, Dept. of Geography)

*Permit + 8-  
✓  
4.9.18*

Teacher in Charge  
Kanchrapara College

DEPARTMENT OF GEOGRAPHY  
KANCHRAPARA COLLEGE  
2018

STUDENTS LIST

SL NO.	NAME OF THE STUDENT	AGE	SEX
01	ANU PAUL	20	F
02	SANJUKTA GHOSH	20	F
03	SOUMI MUKHERJEE	19	F
04	ANJALI DAS	20	F
05	RAKESH PRAMANIK	19	M
06	SURAJ MONDAL	19	M
07	PRITAM PAUL	20	M
08	SUPRADIP ADHIKARI	20	M
09	SUBHASISH BHADRA	19	M
10	DIPANKAR MONDAL	19	M
11	MADHURIMA NANDI	19	F
12	SARMISTHA SHIL	19	F
13	RIYA BARAI	19	F
14	SUSMITA MONDAL	20	F
15	NILANJANA BOSE	20	F
16	RIMI BISWAS	19	F
17	GITASREE SAHA	19	F
18	PURABI SEN	19	F
19	ANIRBAN SARKAR	19	M
20	ARAJIT DAW	19	M

NOC T

Supadip

Presented by  
N. Sen.  
11.9.18

Teacher-in-Charge  
Kanchrapara College

DEPARTMENT OF GEOGRAPHY  
KANCHRAPARA COLLEGE  
2018  
STUDENTS LIST

SL NO.	NAME OF THE STUDENT	AGE	SEX
21	TANMOY SANNYASI	20	M
22	SNEHA SARKAR	19	F
23	RANKITA GAYEN	19	F
24	SABNAM MONDAL	20	F
25	GAZI TOUFIQ ILAHI	20	M
26	MADHU BAIRAGI	19	F
27	ANKITA TAPADER 9007742141	19	F
28	BIKRAMJIT BOSE 8420228622	20	M
29.	PALLABI MALLIK 8020042350	21	F
	9748273796		
	KAKU.		

Teacher-in-Charge  
Kanchrapara College

DEPARTMENT OF GEOGRAPHY  
KANCHRAPARA COLLEGE  
PASSENGER LIST  
(TEACHING STAFF)

SL.NO.	NAME OF THE TEACHER	AGE	SEX
01	SRI ANANDA KUMAR HALDER	37	M
02	MRS SANJALI DAS	33	F

NON-TEACHING STAFF

SL. NO	NAME	AGE	SEX
01	SRI SANKAR SAHA	47	M

*[Handwritten signature]*  
11.9.18

Teacher-in- Charge  
Kanchrapara College



To

The Principal

Kanchrapara College

Kanchrapara, 24 Pgs (N)



Sub: Asking for permission of educational excursion in the Geography department.

Respected Sir,

You will be pleased to note that department of geography will going to arrange the educational excursion (for field work, mentioned in paper XI, Group –B) at DARJEELING /GANGTOK and adjoin region on the 1<sup>st</sup> week of September, 2019.

I shall be highly obliged if you kindly allow this tour .The list is enclosed here with the name of participating students, Teachers, staff and University syllabus.

Thanking you.

*Ananda Kumar Halder*  
Yours faithfully

i ) Three teachers

ii) One non-teaching

(HOD, Dept. of Geography)

Dept. of Geography  
Kanchrapara College  
Kanchrapara, 24 Pgs. (N), W.B

Date: 18/03/2019

*Grantee*  
*18/3/19*  
Principal  
Kanchrapara College  
Kanchrapara, 24 Pgs. (N)

To

The Principal

Kanchrapara College

Kanchrapara, 24 pgs (N)

Date: 03.08.2022

Sub: **Application for the permission of educational tour in the department of Geography.**

Respected sir,

It is hereby informed you that, for the requirement of fulfil the syllabus of 5<sup>th</sup> semester, Geography honours students, paper- GEO/H/CC/P/11, we want to arrange an educational tour at Dooars and adjoin region on the 30.10.2022- 4.11.2022.

I shall be highly obliged if you kindly allow the tour. The list is enclosed here with the name of participating students, teachers and staff.

Thanking you.

*Please conduct a meeting with travel agent as soon as possible. Recommended for Educational tour on and from 30/10/22 to 04/11/22*  
*Prabha 03/08/22*

Yours faithfully

*Sanjali Das*  
03/08/2022

Sanjali Das

HOD/Departmental in-Charge

Department of Geography.

HOD/Departmental In-Charge

Department of.....

Kanchrapara College

North 24- Pgs, Pin-743145


Principal  
Kanchrapara College  
Kanchrapara, 24 Pgs (N)

*Dr 16/8/22*

### LIST OF PASSENGERS

Sl. No.	Name of the teaching staff
1.	Mrs. Sanjali Das
2.	Mr. Subham Basu
3.	Miss Shilpa Biswas
4.	Mr. Ananda Kumar Halder

Sl. No.	Name of the students	Sl.No.	Name of the students
1.	Adrija Maitra	17.	Shana Iqbal
2.	Ahana Das	18.	Suchismita Chattoraj
3.	Aishwarya ghosh	19.	Swantika Samanta
4.	Amrita Kar	20.	Unique Fairy
5.	Anjali Singh	21.	Avik Das
6.	Arpita Dey	22.	Birburu Baskey
7.	Bedangini Biswas	23.	Dipta Pal
8.	Barnali Roy	24.	MD mehebab hossain
9.	Chitralekha Biswas	25.	Shilajit Karmakar
10.	Dona Karmakar	26.	Shivam Saha
11.	Indrani Sarkar	27.	Soumajit Ghosh
12.	Jhumpa Dey	28.	Subhradip Das
13.	Kabita Saha	29.	Ujjal Sharma
14.	Risma Biswas	30.	Supriya Roy
15.	Rwitika Saha	31.	Antara Acharya
16.	Sayani Dey	32.	Debaroti Guha

 03/08/2022

Sanjali Das

HOD/Departmental in-Charge


Department of Geography.

HOD/Departmental In-Charge

Department of.....

Kanchrapara College

North 24- Pgs, Pin-743145

 16/08/22

 3/8/22

To,  
The Teacher-In-Charge;  
Kanchrapara College;  
Kanchrapara.

Sub:- Application regarding zoological excursion of B.SC Part -II, Zoology Honours

Sir,

We the students of 2<sup>nd</sup> year HONOURS, Department of Zoology, of your college want to inform you that we are organising an educational tour as according to our syllabus and chosen to go to MANAS NATIONAL PARK, ASSAM. We are seeking permission from you to commence our educational tour from 13<sup>th</sup> January, 2019 to 17<sup>th</sup> January, 2019.

We shall be highly obliged if you permit us for the educational tour as soon as possible.

Thanking You,

Date: 15/09/2018  
Place: Kanchrapara

Yours' Faithfully,  
Students of 2<sup>nd</sup> Year Honours  
Department of Zoology;  
Kanchrapara College, Kanchrapara.

- 1) Sougata KAR,
- 2) Suddipta Bhattacharyee
- 3) Payeshee Sarkar
- 4) Akash Biswas
- 5) Sumit Kumar Podder,
- 6) Priyanka Dey
- 7) Sriyata Ghosh
- 8) Prokta Biswas
- 9) Sumita Hembram.
- 10) Anusree Roy Chowdhury
- 11) Debjani Das
- 12) Arpita Ray Chowdhury.
- 13) Disha Ghosh
- 14) Supriya Saha
- 15) Puja Sarkar
- 16) Nabanita Dey

Permit  
15.9.18  
Teacher-in-Charge  
Kanchrapara College

P.T.O



To

The principal,

Kanchrapara College, Kanchrapara.

Sub: Application for zoological excursion of B.Sc. 2<sup>nd</sup> and 3<sup>rd</sup> Year honors students

Respected sir,

We the students of 2<sup>nd</sup> year and 3<sup>rd</sup> year(H), department of zoology of your college want to inform you that we are organizing an educational tour as according to our syllabus and chosen to go to **Kulia Fish Farm**, Kalyani. We are seeking permission from you to commence our educational tour on 12.12.2022.

We shall be highly obliged if you permit us for the educational tour as soon as possible.

Thanking you

Date: 02.12.22

Yours Faithfully

Place: Kanchrapara

Students of 2<sup>nd</sup> and 3<sup>rd</sup> year honors

Department of Zoology, Kanchrapara college

*Permitted*

*P.K. Bera*  
*02.01.22*  
Principal  
Kanchrapara College  
P.O. - Kanchrapara, Dist. - 24 Pgs. (N)