



# EDUCATIONAL EXCURSION REPORT

2018-2023

## **NAME – ONE DAY EDUCATIONAL EXCURSION: (Session 2018-2019)**

**1. PLACE- Santiniketan**

**DATE-23/11/2018**

**NO. OF PARTICIPANTS– 70 (Botany Honours and General)**

**TEACHER ESCORTS-** Dr. Kalyan Kumar Bhattacharyya, Sri Hemanta Saha, Dr. Sandipan Chatterjee, Dr. Anirban Paul, Shamim Alam & Ms. Mousumi Mukherjee

**LABORATORY ATTENDANT-** Sri Samarjit Das and Braja Gopal Ghosh



One day educational excursion was conducted to Santiniketan, Birbhum with the students of all the semesters. The location is 33 km from Suri, Birbhum. Students participated in the excursion arrived at the starting point that is opposite to Suri Vidyasagar College on the said day at around 07:00am. The main aim was identifying different local plants, collect plants for herbarium and gather knowledge about these plants. Two meals were arranged for the students as it was a day long program along with snacks. After having lunch, the students roamed around the place for a while before returning to the bus. The group returned back to Suri by evening.



**2. NAME – ONE DAY EDUCATIONAL EXCURSION : (Session 2019-2020)**

**PLACE-** Auttahas, West Bengal

**DATE-**18/12/2019

**NO. OF PARTICIPANTS – 90 (Botany Honours and General)**

**TEACHER ESCORTS-** Dr. Kalyan Kumar Bhattacharyya, Sri Hemanta Saha, Dr. Sandipan Chatterjee, Dr. Anirban Paul, Shamim Alam & Ms. Mousumi Mukherjee

**LABORATORY ATTENDANT-** Sri Samarjit Das and Braja Gopal Ghosh



*Teachers escorts with students*



*Collection of Plant specimens*

One day educational excursion was conducted to Auttahas, Birbhum with the students of all the semesters of General and Honours of Botany. Students participated in the excursion arrived at the starting point that is opposite to Suri Vidyasagar College on the said day at around 07:00 am. The main aim was identifying different local plants, collect plants for herbarium and gather knowledge about these plants. Two meals were arranged for the students as it was a day long program along with snacks. After having lunch, the students roamed around the place for a while before returning to the bus. The group returned back to Suri by evening.

- 3. NAME – TWO DAYS EDUCATIONAL EXCURSION : (Session 2021-2022)**  
**PLACE- Acharya Jagadish Chandra Bose Indian Botanic Garden,**  
**Howrah, West Bengal**  
**DATE- 29/3/22 -30/3/22**  
**NO. OF PARTICIPANTS– 26 (Botany Hons.)**  
**TEACHER ESCORTS- Dr. Hemanta Saha, Dr. Anirban Paul and Mousumi Mukherjee.**



*Different plants at AJC Bose Indian Botanic Garden at Howrah*



*Teacher escorts with students and guide in the IBG*

Two days educational excursion was conducted to Acharya Jagadish Chandra Bose Indian Botanic Garden, West Bengal with the students of all the semesters. It is one of the largest and oldest botanical gardens in South Asia, consisting of 273 acres famous for its enormous collections of orchids, bamboos, palms. The group travelled around the place and did local sight-seeing in their free time. On 30.03.22, the group returned back to their respective home

**4. NAME – ONE DAY LOCAL EXCURSION: (Session 2022-2023)**

**PLACE- Kendua**

**DATE-01/09/22**

**NO. OF PARTICIPANTS– 67 (Botany Honours and General)**

**TEACHER ESCORTS-** Dr. Kalyan Kumar Bhattacharyya, Sri Hemanta Saha, Dr. Sandipan Chatterjee, Dr. Anirban Paul, Shamim Alam & Ms. Mousumi Mukherjee

**LABORATORY ATTENDANT-** Sri Samarjit Das and Braja Gopal Ghosh



*Teacher escorts with students of Department of Botany at Kendua*

One day local educational excursion was conducted to Kendua, Birbhum with the students of all the semesters of Botany Honours and General. Students participated in the excursion arrived at the starting point at Suri Vidyasagar College on the said day at around 08:00 am. The main aim was identifying different local plants, collect plants for herbarium and gather knowledge about these plants. After lots of enjoyment the group returned back to our college.



**5. NAME – FIVE DAYS EDUCATIONAL EXCURSION TOUR TO DARJEELING: (Session 2022-2023)**  
**PLACE- DARJEELING, WEST BENGAL**  
**DATE-12/11/22 -17/11/22**  
**NO. OF PARTICIPANTS – 27(Botany Honours)**  
**TEACHER PARTICIPANTS-Dr. Kalyan Bhattacharyya, Dr. Hemanta Saha, Dr. Anirban Paul**



*Student and teacher at Darjeeling Railway station*



*Quinine Factory at Mungpoo*

In 2022, the department planned a five days educational tour at Darjeeling. The journey initiated on 12.11.2022 from Suri by bus and followed by Train from Bolpur Santiniketan station. After reaching Darjeeling, on the next day, the group decided to study the morphological differences in the plants of hilly areas than the plants of the plane regions. The group travelled around the place and did local sight-seeing in their free time. Students also went to Mungpoo which is famous for the production of quinine a drug used for Malaria. The Excursion team visit to



*Students and Teachers escorts at Lloyed Botanic Garden.*

*Collecting Plant specimen*

Lloyed Botanical Garden at Darjeeling, where they saw various king of plants starting from Bryophyta, Pteridophyta and various type of Gymnosperms and several types of Orchids and Cactus plants. The vast area around Mungpoo is full of Cinchona plantation. On 17.11.22, the group returned back to Siliguri Junction and boarded Kanchan Kanya express to return back to their respective home.



Educational  
Excursion  
Report

# DEPARTMENT OF MICROBIOLOGY

# MICROBIOLOGY





## 1. **NAME** – ONE DAY EDUCATIONAL EXCURSION

**PLACE**- Maa Tara Beverages, Md. Bazar, Birbhum

**DATE**- 18.07.2019 (Session 2019-2020)

**NO. OF PARTICIPANTS** – 09 (Semester II Microbiology Hons)

**TEACHER PARTICIPANT** - Mr. Amarnath Chattopadhyay

One day educational tour was organized by the Department of Microbiology on 18.07.2019 at Maa Tara Beverages, Md. Bazar, Birbhum.

The main objective of the tour was to understand the underlined principle of water purification and microbiological analysis of water. The journey started from Suri Bus stand at around 08:30 am. The excursion group reached the site by 09:15 am. The students were taught the whole process of water purification, packaging, sample test etc. Besides that, students also learned that how wasted water from that plant was used for agriculture. Lunches were arranged for the students. After the learning session, the students enjoyed the agricultural field where variety of fruits and vegetables were grown. The group returned back to Suri in the afternoon to their respective home.



2020 – 2021 session was an online session due to Covid lockdown. Hence, no educational excursion took place during that period.

## 2. **NAME** – SIX DAY EDUCATIONAL EXCURSION

**PLACE**- Darjeeling

**DATE**- 11.04.2022 to 16.04.2022 (Session 2021-2022)

**NO. OF PARTICIPANTS** – 16 (Microbiology Hons.)

**TEACHER PARTICIPANTS** - Mr. Amarnath Chattopadhyay, Mr. Ramkrishna Roy

Department of Microbiology, Suri Vidyasagar College had organized an industrial visit from 11.04.2022 to 16.04.2022 to Darjeeling for the students of the department. Sri Amarnath Chattopadhyay and Sri Ramkrishna Roy were the co-ordinators faculty for the industrial visit. We started travelling from Bolpur Rail Station at 5:30 pm on 11.04.2022. Totally 16 students along with 2 coordinators faculty were there in the journey.

We visited a local Bakery industry namely Raju Bakery and Happy Valley Tea Estate. In bakery, it started with a hands-on presentation explaining the different parts of the machinery used in making of different bakery products. Then the full process along with fermentation was explained by the manager of that bakery unit. At Happy Valley Tea Factory we participated in a guided factory tour. The complete tea processing including withering, crushing, cutting, tearing, curling, fermentation, drying, cleaning and grading was explained very clearly.

We also went for a guided visit in one of the oldest natural forest reservoir at Rampuria. Different samples of medicinal herbs were collected by our students. Our return journey started on 15.04.2022 from Siliguri and ended on 16.04.2022, when we all reached our home safely.





### 3. **NAME** – ONE DAY EDUCATIONAL EXCURSION

**PLACE**- Dighalpahari, Jharkhand

**DATE**- (Session 2022-2023)

**NO. OF PARTICIPANTS** – 23 (Microbiology Hons.)

**TEACHER PARTICIPANTS**- Mr. Amarnath Chattopadhyay, Mr. Ramkrishna Roy

**LABORATORY ATTENDANT**- Sri Ratan Singh

One day educational tour was organized by the Department of Microbiology on 22.12.2022 at Dighalpahari, Jharkhand. It is a small hamlet amid a lake surrounded by small hills and jungles.

The main objective of the tour was sample collection for study microbial population of that particular habitat. The journey started from opposite of the college at around 07:00 am. The excursion group reached the site by 09:00 am in a bus. The students were taught how to collect and store soil and water sample for microbiological analysis. The student learnt full heartedly. Breakfast and meals were arranged for the students. After the learning session, the students enjoyed the place in leisure time. The group returned back to Suri in the evening to their respective home.



# EDUCATIONAL EXCURSION REPORT

2019-2023





## 1. NAME – ONE DAY EDUCATIONAL EXCURSION

**PLACE- KURUA PAHAR, JHARKHAND**

**DATE- 29.12.2019 (Session 2019-2020)**

**NO. OF PARTICIPANTS – 35**

**TEACHER PARTICIPANTS- Dr. Amal Kumar Pari, Ms. Haimanti Chatterjee**



One day educational excursion was conducted to Kurua Pahar, Jharkhand with the students of all the semesters. The location is 66 km from Suri, Birbhum. Students participated in the excursion arrived at the starting point that is opposite to Suri Vidyasagar College on the said day at around 07:00am. The main aim of the study was to teach the students how to blend with local village people and collect data regarding their daily diet and how to advise them about economical nutrient rich food to stay healthy. The student talked with the villagers and collected data. Two meals were arranged for the students as it was a day long program along with snacks. After having lunch, the students roamed around the place for a while before returning to the bus. The group returned back to Suri by evening.

## 2. NAME – FOUR DAYS EDUCATIONAL EXCURSION TOUR TO DARJEELING

PLACE- DARJEELING, WEST BENGAL

DATE- 07.04.2022 – 10.04.2022 (Session 2021-2022)

NO. OF PARTICIPANTS – 27

TEACHER PARTICIPANTS- Dr. Amal Kumar Pari, Dr. Arijit Debnath, Dr. Deblina Ball,

Ms. Haimanti Chatterjee



2020 – 2021 session was an online session due to Covid lockdown. Hence, no educational excursion took place during that period. In 2022, the department planned a four days educational tour at Darjeeling. The main focus of the tour was to study the physiological differences in the population of hilly areas than the population of the plane regions. The journey initiated on 07.04.2022 from Suri. The excursion group boarded the Ranchi Kamakhya express at 04:30 am and reached New Jalpaiguri station at 01:30 pm. From there, cabs were booked to reach Darjeeling. After reaching Darjeeling, on the next day, the group decided to study the respiratory functions of the people of driving occupation and talked with a nearby car parking station to decide the time for data collection. As Darjeeling is a tourist place, the main occupation of the male population is driving for the tourists. The drivers said that next day evening all the drivers would give data. So, the group accumulated at the said place with anthropometer rod, weighing machine, sphygmomanometer and handheld spirometer to collect data. The subjects cooperated with the students and height, weight, blood pressure, pulmonary function was measured. The group travelled around the place and did local sight seeing in their free time. On 10.04.22, the group returned back to Siliguri Junction and boarded Kanchan Kanya express to return back to their respective home.



### **3. NAME – ONE DAY EDUCATIONAL EXCURSION**

**PLACE- DIGHALPAHARI, JHARKHAND**

**DATE- 22.12.2022 (Session 2022-2023)**

**NO. OF PARTICIPANTS – 45**

**TEACHER PARTICIPANTS- Dr. Amal Kumar Pari, Dr. Arijit Debnath, Dr. Deblina Ball,  
Mrs. Nupur Pal, Ms. Haimanti Chatterjee**



One day educational tour was organized by the Physiology department on 22.12.2022 at Dighalpahari, Jharkhand. It is a small hamlet amid a lake surrounded by small hills. The place is inhabited by tribal people. As it was a one-day program, the main objective of the tour was a learning session for the students about the local population. The journey started from opposite of the college at around 08:00 am. The excursion group reached the site by 09:30 am in a bus. The students were taught how to collect data and communicate with local people. The students asked the people about their nutritional status and advised them how they could provide themselves with full nutrition economically. The student learnt full heartedly. Breakfast and meals were arranged for the students. After the learning session, the students enjoyed the place in leisure time. The group returned back to Suri in the evening to their respective home.



EXCURSION REPORT ON STUDY OF PARASITE DIVERSITY  
IN FISHES FROM MIRIK LAKE, WEST BENGAL

**SUBJECT:-ZOOLOGY**

**P.G. 4TH SEM PRACTICAL EXAMINATION, 2022**

**PAPER:- 406 (DE - 5)**

*Submitted By :-*

**ROLL NO. :- BUR/ZOO/2020/114**

**REGISTRATION NO. :- 202003000614 OF 2020-21**



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## CERTIFICATION

This is to certify that Riya Makhal (Registration No.- 202003000614 of 2020-21, Roll No. BUR/ZOO/2020/114) M.Sc. 4<sup>th</sup> Semester student of Department of Zoology, Suri Vidyasagar College, has successfully completed her field report after her participation in an extensive field work performed in Darjeeling, Mirik lake and surrounding fish market of Mirik, West Bengal during the period of an educational tour organized by the Department of Zoology, Suri Vidyasagar College from 07/04/2022 to 11/04/2022 for the partial fulfilment of the Post Graduation in Zoology during the year 2020-2022.

Date:- 28/06/22

Suri

*Dipa Mandal*  
28/06/22

Mrs. Dipa Mandal

Head of Department

Department of Zoology

Suri Vidyasagar College

HEAD  
DEPARTMENT OF ZOOLOGY  
(P. G. SECTION)  
SURI VIDYASAGAR COLLEGE

## ACKNOWLEDGEMENT

It is an excellent opportunity for me to explicate my deep sense of gratitude to the respected teachers of my Department of Zoology, Suri Vidyasagar College, Dr. Chandrik Malakar, Head of Department Mrs. Dipa Mandal, Mr. Uttam Kumar Sen, Mr. Dhaniram Biswas, Miss Srishti Biswas, for suggesting and conducting present field work at the Mirik Lake and The Local Fishh Market in Mirik.

I would like to thank all the professors of my department for their guidance in spite of their busy schedules.

I'm grateful to Mr. Uttam Kumar Sen and my classmates for their excellent photography of our entire tour and helping us in composing our field report.

I would also like to express my heartfelt appreciation of my parents and other family members for their constant inspiration and financial support during the entire field work.

Date : 28/06/22

Suri

*Riyo Makhal*

Signature



## PREFACE

Field report provided us a realistic view of the art & science of field based wild life study. It provided us a clear concept about the status of biotic & abiotic components upon which the ecosystem is depended. The aim of this field report about **"Study of parasite diversity in fishes from the local fish market of Mirik"**.

For this purpose, Mirik lake & local fish market of Mirik and surrounding Darjeeling was chosen to accomplish the task and furnish the field report. Animal watching, bird watching and behavioural activities of the living animals (Padmaja Naidu Himalayan Zoological Park of Darjeeling) are emphasized in this report, which are the necessary key to judge the functional role as well as the position in the tropic level with in the food chain in this concern ecosystem of some regional mammals, birds etc. this field report also emphasize the conservation of certain species which have already reached to the penultimate door of extension.

## AIMS AND OBJECTIVES

Mirik is a picturesque tourist spot nestled in the serene hills of Darjeeling district of West Bengal. The name Mirik comes from the Lepcha words Mir-Yok meaning "place burnt by fire". The centre of all attraction is the **Sumendu Lake (Mirik Lake)**, surrounded by a garden on one side and pine trees on the other and linked together by an arching footbridge called Indreni Pull (Rainbow Bridge).

A 3.5-km-long road encircles the lake and is used for walks with the view of Kanchanjangha on the far horizon. Boating on the quaint shikaras and pony riding are available. Mirik lake is known for its rich variety of biodiversity and ecological scenery.

From our field work in **Mirik lake** and in the **local fish market** in Mirik we come to know about lot of things-

- An overall idea of rich animal diversity of the Mirik lake and surrounding and its ecosystem.
- The observation of the scenic beauty of Mirik lake and surrounding and different flora and fauna.
- Visit to a local fish market to collect fish for studying parasites living in that particular fish.
- Understanding of Socio-economic development in a fish market.
- Learning of dissection of fish to examine presence of Parasite.
- Preservation some fresh fishes and remaining of fishes after dissection in 4% Formalin.
- Study of parasite found in remaining of fish (especially gut content) in our Zoology department.

## OUR EXCURSION GROUP

Our excursion group consist of total 41 member including teachers and students of B.Sc. Semester II, Semester IV, SEM VII and PG Semester I and Semester IV of Department of Zoology, Suri Vidyasagar College.

### Name of the Teachers

Mrs. Dipa Mandal, Dr. Chandrik Malakar, Prof. Uttam Kumar Sen,

Mr. Dhaniram Biswas and Miss Sristi Biswas

### Name of Students of PG Semester IV

1. Abir Dutta
2. Dipika Roy
3. Indrajit Mukherjee
4. Moutusi Pathak
5. Nitimala Ghosh
6. Indranil Murmu
7. Puja Ghosh
8. Riya Makhhal
9. Sayak Dey
10. Sourav Pakira
11. Gargi Bairagya
12. Tiyasha Bhowmik





## TOUR ITINERARY

<u>DATE</u>	<u>TIME</u>	<u>EVENTS</u>
07/04/22	4.30 AM	DEPARTURE FROM SURI TO NJP BY PURI - KAMAKHYA EXPRESS
	11.00AM	ARRIVAL AT NJP
	2.30PM	JOURNEY STARTS TOWARDS DARJEELING VIA BUS
	4.30PM	REACHED KURSEONG
	7.00PM	REACHED DARJEELING
	8.00PM	VISIT DARJEELING STATION
08/04/22	4.00AM	JOURNEY START FOR TIGER HILL
	5.00AM	VISIT TIGER HILL FOR SUNRISE VIEW
	7.00AM	VISIT TO GHOOM MONASTERY, BATASIA LOOP, PEACE PAGODA
	4.30PM	VISIT TO TENZING ROCK
	5.00PM	VISIT TO MALL MARKET
09/04/2022	10.00AM	VISIT TO PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK
	01.00PM	VISIT TO HAPPY VALLEY TO STUDY WILD STREAM
	03.00PM	START FOR MIRIK VIA BUS
	06.00PM	ARRIVAL AT MIRIK, NIGHT STAY AT MIRIK
10/04/22	06.00AM	VISIT TO NEAREST FISH MARKET AND COLLECT FISH
	11.00AM	VISIT TO MIRIK LAKE, STUDY ECOLOGY AND WATER QUALITY OF LAKE WATER
	03.00PM	DEPARTURE FOR NJP VIA BUS
	07.50PM	REACHED NJP
11/04/22	03.25AM	START JOURNEY BY KAMAKHYA PURI EXPRESS
	12.00PM	REACHED SURI

## **BRIEF INTRODUCTION OF MIRIK LAKE**

Mirik lake is one of the most famous tourist spots in the state of West Bengal. It is famous for its beauty as well as easy transport facility to the place. On the way to Mirik the scenery is breath taking and it seems going amongst the white fluffy clouds. There is greenery on one side with the tea gardens, mountains, and pine trees along the way. The road trip from Darjeeling to Mirik makes a person fall short of words.

Located at an altitude of 1767 m, Mirik is an idyllic hill station, nestled in the serene hills of Darjeeling district in West Bengal. It is 55 kms from Siliguri and 49 kms from Darjeeling. The name Mirik comes from the Lepcha words Mir-Yok meaning "place burnt by fire". One of the newest hill stations in India, Mirik is blessed with pleasant climate. Beautiful landscaped gardens, tea estates, orange and cardamom plantations, the tourism department cottages, boating facilities, easy accessibility etc. have made Mirik an attractive resort town.

Mirik town used to be a meadow which was surrounded by hills. In 1970 the West Bengal Tourism Department made a small dam which blocked the water from flowing out thus creating the lake in the process. Later it was constructed in 1979 under "Mirik Tourist Project" for the facilitation of commercial tourism. The lake is fed by rain water which remains full throughout the year. Now the lake has become one of the biggest tourist attractions of Mirik town.

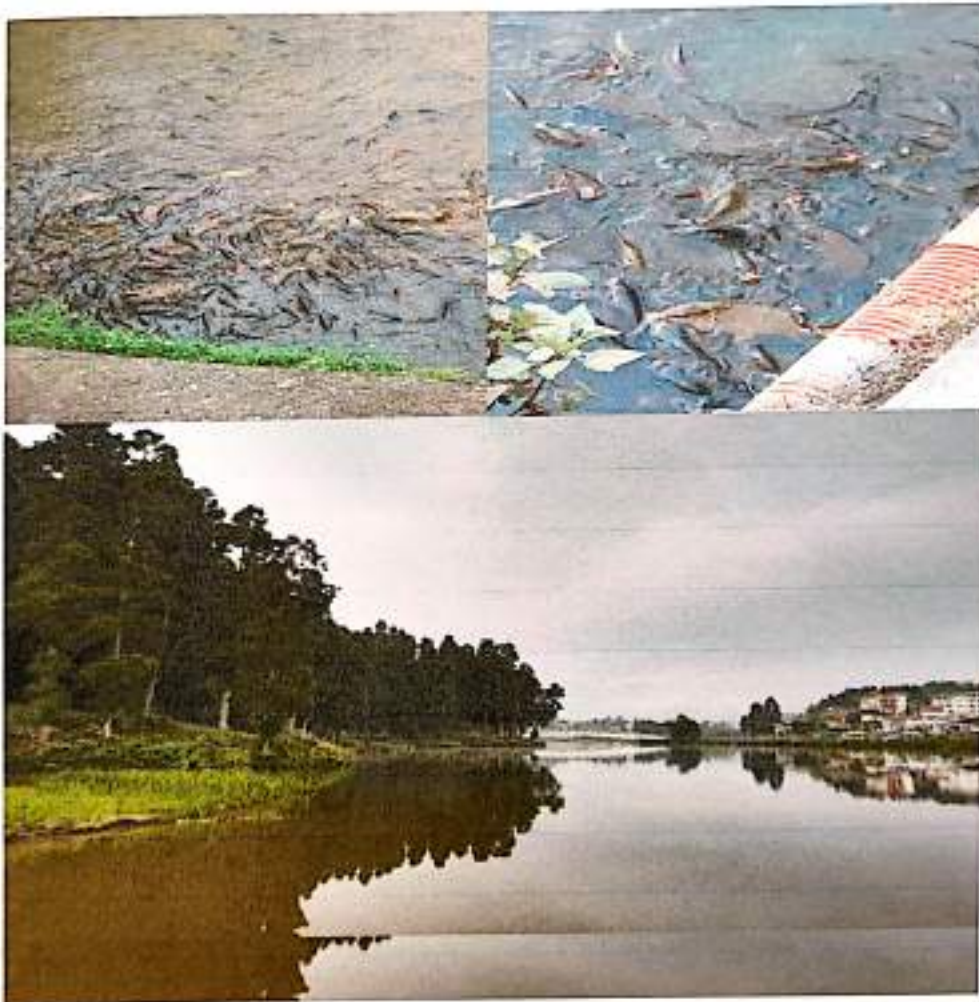
Mirik has an average elevation of 1,495 m (4,905 ft). The highest point is the Boker Monastery at about 1,768 m (5,801 ft). Mirik lake at about 1,494 m (4,902 ft) is the lowest point. The 1.25 km long Mirik lake or Sumendu Lake is the major tourist spot in Mirik. It is a beautiful man-made lake surrounded by a beautiful garden on one side and dense forest of pine, cardamom and the orange trees on the other. A long road encircles the lake and people usually take a leisure walk around it. From here, one can have a bird's eye view of the stunning Kanchenjunga.





Mirik has become a tourist destination for its climate, natural environment and easy accessibility. The centre of all attraction, the Sumendu Lake, is surrounded by a garden named Savitri Pushpaudyan (after Savitri Thapa, a martyr soldier of INA) on one side and pine trees on the other, linked together by an 80ft long arching footbridge called Rainbow bridge or Indreni Pool (named after Indreni Thapa, a martyr soldier of INA). A 3.5-km-long road encircles the lake and is used for walks with the view of Kangchenjunga on the far horizon. Boating on the quaint boats and horse riding are available. The depth of the water varies from a minimum of 3 ft. to maximum of 26 ft. The lake is adorned with a floating fountain in the middle. There is a temple named Singha Devi Mandir on the west of the lake. The two points near the lake namely Rameetya Dara and Deosi Dara have the best view of the snowcapped Himalayan Range and the valley. The sunrise and the sunset are the best from this particular area.

- **Trees found at Mirik Lake:** - The western part of the lake is surrounded by the forest of tall dhupi trees along with oak, pine, chestnut etc.
- **Fishes found in Mirik Lake:** - Few local fishes such as Boroili (*Barilius bendelisis*), Koksa (*Barilius shacra*) etc. can be found in Mirik Lake.





## Method of parasite collection and preservation









- ❖ **Collection:** After collecting the fishes, some of them are taken for on-spot examination and the rest are kept aside for preservation. The entire outer surface, the fish scales, especially the oral region, the gills, the operculum and the fins are thoroughly examined for collection of parasitic helminths. On skin, fins, gills and in nasal chambers the Monogenea may be present. Dactylogyrids, Gyrodactylids, Capsalids and Mazocraeids are most commonly found as fish parasites. One may find encysted metacercaria of digenetic trematodes on the body and fins of fishes. After the external examination, the living or freshly killed fish is kept in an enamel tray containing saline water. A long incision is made from anus to urinogenital opening on the mid-ventral surface and the body cavities are examined carefully for parasites or cysts. Next the internal organs are removed, one at a time and placed separately in dishes containing saline water. Each organ is cut open and dipped in saline water so that the parasites are dislodged. Then the parasites are picked up with help brush or forceps.



- ❖ **Preservation:** The parasites collected from the fishes were thoroughly washed in saline solution to free it from debris and mucus and then preserved in vials filled with 70% ethyl alcohol. Rest of the fresh fishes and remaining of fishes after dissection are preserved in air-tight and leak-proof plastic bags filled with 4% formalin to further examine them for protozoan or and helminth parasites in our departmental laboratory. All the vials and plastic bags containing specimens are properly labelled.

## DISCUSSION

During the excursion we wrote our observations; tried to identify different species with the help of our teachers. Every night we met for general discussion and unsolved matter if any. We also tried to take photographs of different fishes. After returning home we met at the college for compilation of the list of our observed fishes. Check list of our observed parasites from the collected fishes given below:

	Name of Fishes	Name of the Parasites
1.	 <i>Barilius bendelisis</i>	 <i>Bothriocephalus sp.</i>
2.	 <i>Cyprinus carpio</i>	 <i>Dactylogyrus sp.</i>
3.	 <i>Ctenopharyngodon idella</i>	 <i>Balantidium ctenopharyngodon</i>
4.	 <i>Schizothorax richardsonii</i>	 <i>Myxobolus himalayaensis</i>

5.



*Catla catla*



*Lernaea cyprinacea.*



*Trichodina sp.*

Beside the check list, we also observed different types of parasites from the collected fish which are not listed here because of lack of knowledge about them.

By this excursion general curiosity on different parasites of fishes have been grown in our mind. We also understand the ecology of the ecosystem. We also learn about the effort of local people, the Department of Fisheries, Govt. of West Bengal for culturing different types of fishes in Mirik lake.



## CONCLUSION

Study tour is a tremendous way to facilitate learning for the students. They can easily know about the nature and can take the educational elements from the nature. After discussing all the points, we have come to know that study tour is educational and refreshment tour for both teachers and students.

Till now when I close my eyes, I can feel the sound of waterfalls and toy train, I love the feeling of fresh air on my face. The excursion taught us to grow bigger, to see the nature from a naturalist eyes, to love nature, to obey the rule of nature. I promise to my soul that the learning will not be wastages. I will go through the ways the nature shows to travel. I promise to feel the nature, save the nature and to give highest satisfaction to my own soul to be a proper and successful student of Nature, rather than the subject Zoology.

*Zeper Mandah  
28/06/2022*



FR → 2018-19

**EXCURSION REPORT ON FOREST  
AREA TO STUDY BIODIVERSITY  
IN DOOARS, WEST BENGAL**

**B.Sc PART -III HONOURS PRACTICAL  
EXAMINATION 2019**

**SUBJECT: - ZOOLOGY**

**PAPER: - XII**

**ROLL: 17SH/310 NO: 0137**

**REGISTRATION NO: 201601053283 OF 2016 - 2017**





## CERTIFICATION

This is to certify that (Registration no- 201601053283 of 2016-2017, Roll No- 17SH/310/0137) B.Sc. 3<sup>rd</sup> year student, department of zoology, Suri Vidyasagar College, has successfully completed his field report after his participation in an extensive field work performed in the Dooars Wildlife, West Bengal during the period of an educational at the said venue organized by the said department from 29/11/18 to 2/12/18 under the guidance of professor of department of zoology, Suri Vidyasagar College for the partial fulfillment around the bachelor degree in zoology during the year 2018.

Date \_\_\_\_\_ April, 2019

Suri

*C. Malakar*

Dr. Chandrik Malakar

HEAD OF THE DEPARTMENT

Department of Zoology

Suri Vidyasagar College

Supervisor

*C. Malakar*

HOD of Zoology

Suri Vidyasagar College

Head of the Dept. of Zoology  
Suri Vidyasagar College



## ACKNOWLEDGEMENT

It is an excellent opportunity for me to explicate my deep sense of gratitude to Dr. Chandrik Malakar, Prof. Uttam Kumar Sen and, Mrs. Dipa Mondal Asst. Professor in Zoology, Department of Zoology, Suri Vidyasagar College, Suri, Birbhum for suggesting and conducting present fieldwork at Gorumara National Park.

I am also grateful to other professors of my department for their valuable suggestion and help inspite of their busy schedules.

I am also grateful again to Mr. Uttam Kumar Sen and other friends for excellent photography of entire tour and composing our field record.

I would like to express my deep appreciation of my parents and other family members for their constant inspiration and financial support during the entire period of field work.

Date 21st February, 2019

Suri

*Soumyajit Dutta*

Signature

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## PREFACE

Field reports provided us a realistic view of the art and science of field base wild life study. It provides us a clear concept about the status of biotic and abiotic components upon which the ecosystem is depended. The aim of this field report about "Forest Ecosystem" and its biodiversity is to emphasize and explore the co-relation between the biotic and abiotic components of ecosystem along the aspect of morphological and physiological characteristics of biotic components of that concerned. For this purpose famous Gorumara National Park and its surrounding was chosen to accomplish the task and furnish the field report. Animal watching, bird watching and behavioral activities of the living animals are emphasized in this report, which are the necessary key to judge the functional role as well as the position in the tropic level with in the food chain in this concern ecosystem of some regional mammals birds etc. This field report also emphasize the current initiative, objectives taken by the local governing body about the conservation of certain species which have already reached to the penultimate door of extension.



## AIMS AND OBJECTIVES

Tropical Deciduous Forests are the most widespread forests of India. They are also called the monsoon forests. Tropical Deciduous Forests thrive where the rainfall is between 70 cm and 200 cm. The trees in these forests shed their leaves for about six to eight weeks in summer.

Deciduous forests are most important as habitat areas. Many wildlife species rely on deciduous forests and trees as their primary sources of food and shelter. In Gorumara National Park most deciduous trees grow close to streams, rivers or in moist areas.

From our field work we come to know about a lot of things-

- An overall idea on animal diversity of the Gorumara national Park and surrounding.
- Outline knowledge of habitats of different animals.
- The various behavioral aspects of different animals under different conditions
- Socio economic development related to forestry.

## OUR EXCURSION GROUP

Our excursion group consist of a total of 46 members including teachers , students of B.Sc. III year, Sem II & Sem I (Honours) of Dept. of Zoology Suri Vidyasagar College.

### Name of the Teachers

Dr. Chandrik Malakar  
Prof. Uttam Kumar Sen  
Mrs. Dipa Mondal

### NAME OF THE STUDENT

#### Sl.No B.Sc.III (H)

1. Aditi Chandra
2. Antara Das
3. Shruti Paul
4. Animesh Nandi
5. Samima Yasmin
6. Tiya Roychoudhury
7. Puspita Banerjee
8. Soumi Dutta
9. Uzma Mir
10. Mamal Mondal
11. Souvik Chakraborty
12. Abhik Chakraborty
13. Riya Rajak
14. Soumyajit Dutta
15. Shreya Karmakar
16. Rahul Ghosh
17. Sayantika Mondal
18. Diya Ghosh
19. Jagneswar Mondal
20. Srinath Hembram
21. Sayan Garai
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3. Ankan Das
4. Biplob Saha
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1. Moitry Biswas
2. Rajesh Saha
3. Poulomi Bhounik
4. Arpan Das
5. Indrani Nayek
6. Saptaki Saha
7. Jhun Rooj
8. Sumana Ghosh
9. Soumyadeep Sarkar
10. Sk Akbar Uddin
11. Sukanya Mondal
12. Chumki Pal
13. Joyashree Pal



## BRIEF INTRODUCTION OF GORUMARA NATIONAL PARK

Gorumara National Park is a beautiful place, located in the Jalpaiguri district of the state of West Bengal. The park is situated in the Terai region of the Himalayan foothills. It is primarily known for its population of Great Indian One horned Rhinoceros.

It was established as a National Park in the year of 1992. Total area of the park is 79.45 Km<sup>2</sup>. Gorumara Park located on the bank of rivers Murti and Raidak has vegetation of riverine grasslands interspersed with savannah woodlands. The park has been declared as the best among the protected areas in India by the MOEF (Ministry of Environment and Forest) for the year 2009.

Much of this forest is moist deciduous and sal is the most common and valuable tree. Teak, Simul, Siris, Khair are also found here. The park is breathtaking with its rivers and mountain ranges. The arid deciduous jungle terrain mix together with grasslands, docks one of biggest variety of jumbo





fauna in West Bengal. The major river of the park is the Jaldhaka River, a tributary of the Brahmaputra river system. In this regard, Gorumara is a significant watershed area between the Ganges and Brahmaputra river systems. The park is very close to Jaldapara National Park and Chapramari Wildlife Reserve. The park is home to many species flora and fauna. The vegetation here is so thick that sunlight barely reaches down to the forest floor and there are times when it is impossible to see through the thicket. The park has recorded fifty species of mammals , 193 species of birds , 22 species of reptiles , 7 species of turtles , 27 species of fishes and other macro and micro fauna.

**Mammals:** The Park is rich in large herbivores including Indian Rhinoceros , Gaur , Asian Elephant , Sloth bear , Chital , and Sambar Deer . Small herbivores include Barking deer, Hog deer and Wild boar . There is a comparative lack of large carnivores, with the only big cat being the Leopard.



The park is not home to any resident population of Bengal Tigers , Indian Wild Dogs or Indian Wolf . Tigers are, however, occasionally spotted here. It

does have numerous small carnivores including various civets, mongooses and small cats. The park has a large resident population of Wild boar, but the critically endangered Pygmy Hog has been reported from the park. It also has numerous rodents, including Giant Squirrels. The rare Hispid Hare



has also been reported from the park.

Birds: Gorumara National Park is famous for its bird population - which includes brilliant sub mountain forest birds like the Scarlet Minivet, Sunbird, Asian Paradise Flycatcher, Spangled Drongo and Great Indian Hornbill. Numerous woodpeckers

and pheasants inhabit the park.



# TOUR DIARY

29/11/2018:

Our journey started from Bolpur station Kanchankanya express. We got on the bus at Suri to catch our train at Bolpur which was scheduled on 11:20 pm. There we had started our journey by boarding our train and reached New Mal Junction.

30/11/2018:

We checked in a resort named the "Golden Hedge", which is situated at Batabari More. There we took rest and after refreshment we planned to go to Gorumara National Park for jungle safari. We hired gypsy car and started to enjoy the magical nature of the jungle. On the way we observed many kinds of birds, peacock, bison, deer and elephant. We traveled the major parts of the forest and observed many wild animals like Indian bison, spotted deer, Indian elephant, Indian

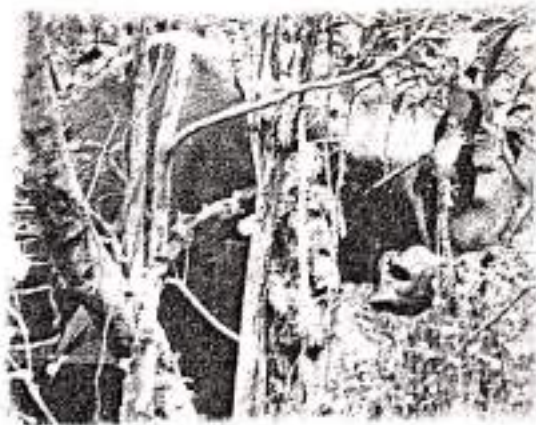


Fig. *Bos gaurus*

giant squirrel, langur, wild boar, jungle fowl, great hornbill, peacock, spangled drongo. However we enjoyed the day with our hearts content. Later came back to the resort, took our dinner and meet to our teachers for general discussion and report preparing about the tour, then we rest for next day's adventure.



01/12/2018:

We woke up at around 5:30 am and quickly got ready. Today we had plans to visit Bhutan Ghat followed by Choto Mahakal Temple, Buxa Fort. We were very excited about Buxa Fort. However it's a restricted place due to various insurgencies and disturbances in that region and unless you have known contacts it's not possible to visit Buxa Fort. The journey through the cool green hills and evergreen forests are something really tempering for our eyes. HOD of our department and other teachers are really helped us in various small things which can't be explained in words. The Jayanti River adds to the beauty of Jayanti. The village is aptly named after river. It is a popular tourist spot, owing to its wonderful landscape. The place has a wonderful view to it, making it a perfect picnic spot. One can take a walk along the riverside or simply sit by and enjoy the view.



After lunch we went to Buxa Fort via Rajabhatkhawa and Santalbari. We had to leave our vehicles near Santalbari and start trekking. From Santalbari to Buxa Fort is about 4 kms walk. Santalbari is a small village. The Buxa Fort is located at an altitude of about 2500 ft. Again it was drizzling so the road was very slippery so we had to be very careful. We were accompanied by a local



guide Kanchan Thapa. The climb was really a tough one and we would stop often because of our tiring limbs. On our way Kanchan Thapa told us how the British rulers had captured Netaji Subhash Chandra Bose along with other freedom fighters and kept them in the cells of Buxa Fort. On reaching the



Buxa Fort we witnessed the ruins of the fort. The silence of the place spoke an untold story of the struggle of our freedom fighters. After visiting the Buxa Fort we returned to our resort "Golden Hedge", and enjoy cultural programme. After

dinner we gathered to a common room for note down and exchanging our experience.



02/12/2018:

In the early morning we started our journey towards the tea garden. We enjoyed the beauty of tea garden. Then we went to tea factory to see the processing of tea. The factory's manager also helped us to understand how they make tea from tea leaves. We bought some packed tea also from this factory. After our morning excursion we returned to our hotel at 11 am. After having our delicious lunch, we bid good bye to Dooars. At 12:30 pm we went to Gajoldoba Teesta Barrage, a hot tourist destination and bird watching centre in Jalpaiguri. Gajoldoba has been a boon to the migratory water fowls after a dam was constructed for irrigational purpose on river Teesta. It is a good place to see migratory and wintering raptors, plus grebes. Some birds seen here are Common Shelduck, Falcated Duck, Garganey, Red crested Pochard, Ferruginous Pochard, Lesser Sand Plover, Northern Lapwing,



Fig. *Dendrocygna javanica*

Osprey, Western and Eastern Marsh Harreiers, Hen Harriers, Peregrine, Great crested and Black necked Grebes. The reservoir, surrounded by dense forests of Baikunthapur, invites a large collection of water birds from Ladakh and Central Asia. Spend some leisurely hours on the spur with a binocular and watch the Bohimini ducks, Bar headed goose,



Fig. *Anser indicus*

Pochards, Pintials, Shovlers, mallards, black Ibis and many species of storks, cormorants and ducks. We enjoyed nature's beauty. Our journey was memorable. At 4 pm we went to Jalpaiguri station to return home.



## DISCUSSION

During the excursion we wrote our observations; try to identify different species with the help of our guide and professors. Every night we meet for general discussion and unsolved matter if any. We also tried to take photographs of different animals, birds etc with two high zoomed dslr cameras. After returning home we met at the college for compilation of the list of our observed wild lifes. Check list of our observed wild lifes are given below;

NAME	SCIENTIFIC NAME
Asian Elephant	<i>Elephas maximus</i>
Spotted Deer	<i>Axis axis</i>
Indian giant squirrel	<i>Ratufa indica</i>
Indian bison	<i>Bos gaurus</i>
Spangled drongo	<i>Dicrurus bracteatus</i>
Great hornbill	<i>Buceros bicornis</i>
Wild boar	<i>Sus scrofa</i>
Fulvous-breasted woodpecker	<i>Dendrocopos macei</i>
Jungle fowl	<i>Gallus gallus</i>
Ashy drongo	<i>Dicrurus leucophaeus</i>
Indian peafowl	<i>Pavo cristatus</i>

Table : CHECKLIST OF ANIMALS WATCHED IN GORUMARA NATIONAL PARK

Common Name	Scientific Name
Ruddy shelduck	<i>Tadorna ferruginea</i>
Bar headed goose	<i>Anser indicus</i>
Lersser whistling duck	<i>Dendrocygna javanica</i>
Red Crested Pochard	<i>Netta rufina</i>
Common Coot	<i>Fulica atra</i>
Great crested grebe	<i>Podiceps cristatus</i>

Table 2: CHECKLIST OF BIRDS WATCHED IN GAJOLDOBA

Beside the check list, we also observed different types of birds, insects, animals etc. Which are not listed here because of lack of knowledge about them.

By this excursion general curiosity on wild life has been grown in our mind. We also understand the ecology of the ecosystem. We also learn about the effort of local peoples and Govt. for conserving our biodiversity of the area.



# UNIVERSITY OF BURDWAN



## EXCURSION REPORT ON ZOOLOGICAL PARK TO STUDY ANIMAL BEHAVIOUR IN PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK

**SURI VIDYASAGAR COLLEGE**  
**B.SC Semester-VI**  
**Dept-Zoology Honours**  
**Paper-DSE-3**  
**(Animal Behaviour)**

**University Roll No-190331000015**

**University Reg.No-201901032358 of 2019-20**



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## CERTIFICATE

This is to certify that **Arijit Mondal, Roll No- 190331000015, Registration No- 201901032358 of 2019-20, B.Sc 5<sup>th</sup> Sem Student, Department of Zoology, Suri Vidyasagar College**, has successfully completed his field report after his participation in an extensive field work performed in the Padmaja Naidu Himalayan Zoological Park, Darjeeling during the period of an educational tour at the said venue organized by the said department from 07/04/2022 to 11/04/2022 under the guidance of professors of Department of Zoology, Suri Vidyasagar College for the partial fulfillment of Bachelor degree in Zoology during the year 2022.

Date :- 8<sup>th</sup> April, 2022

Place :- Suri

  
Signature Of HOD

Head of the Dept. of Zoology  
Suri Vidyasagar College



## ACKNOWLEDGEMENT

It is an excellent opportunity for me to explicate my deep sense of gratitude to Dr. Chandrik Malakar, Prof. Uttam Kumar Sen, Prof. Dhaniram Biswas, Prof. Dipa Mondal, Prof. Sristi Biswas Department of Zoology, Suri Vidyasagar College, Suri, Birbhum for suggesting and conducting present fieldwork at **Padmaja Naidu Himalayan Zoological Park**, at Darjeeling.

I am also grateful to other professors of my department for their valuable suggestion and help inspite of their busy schedules .

I am also grateful again to my Professors and other friends for excellent photography of entire tour and composing our field record .

I would like to express my deep appreciation to my parents and other family members and classmates for their constant inspiration and financial support during the entire period of field work.

Date :- 8<sup>th</sup> April, 2022

Place :- Suri

*Arijit Mondal.*  
-----  
Signature

## INTRODUCTION

To learn the Zoology as a subject, it is important to make the student a better understanding of the subject by allowing them to see and observe the natural environment. Sanctuary, national park, forest and zoological garden are appropriate places to study the animals. A field trip is a visit to an area outside of the normal classroom where students can try new things, have different experiences and learn valuable life lessons. Here students can see new sights and have hands on opportunity to explore wide variety of experiences and they can study the natural behaviour of many animals.

According to our syllabus (Visit to Forest/Wildlife sanctuary/Biodiversity Park/Zoological Park to study behavioural activities of animals and prepare a short report) a field trip was organised to **Padmaja Naidu Himalayan Zoological Park** located in Darjeeling from 7th April to 10th April, 2022. This trip was organised by the teachers and students of Zoology Department of Suri Vidyasagar College. During this field trip we covered this whole Zoological Park and some tourist spots of Darjeeling.

## PARTICIPANTS

We were about 42 persons participated in the excursion of Darjeeling. Our professors made this journey memorable to us. They were 5 in number - our HOD Dipa Mondal mam, Chandrik Malakar sir, Uttam Kumar Sen sir, Dhaniram Biswas sir and Sristi Biswas mam. There were 37 students in total in which 12 were female and 25 were male.





## Few Words About Zoological Park

Padmaja Naidu Himalayan Zoological Park (also called the Darjeeling Zoo) was established on 14 August 1958 in the Birch Hill neighbourhood of Darjeeling under the Department of Education of the Government of West Bengal with a goal to study and preserve Himalayan faunas.



Entrance of the Zoological Park

Padmaja Naidu Himalayan Zoological Park is a 67.56-acre (27.3 ha) zoo in the town of Darjeeling in the Indian state of West Bengal. The zoo was opened in 1958, and an average elevation of 7,000 feet (2,134 m), is the largest high altitude zoo in India. Coordinates of the Zoo 27.05860990N-88.2544050E.



This Zoological Park specializes in breeding animals adapted to alpine conditions, and has successful captive breeding programs for the snow leopard, the critically endangered Himalayan wolf and the red panda. The zoo attracts about 300,000 visitors every year. The park is named after Padmaja Naidu (1900-1975), daughter of Sarojini Naidu. The zoo serves as the central hub for Central Zoo Authority of India's red panda program and is a member of the World Association of Zoos and Aquariums.

## Geological Condition Of Darjeeling

The Geological condition of " Queen of Hills " or Darjeeling goes without saying that Darjeeling weather is highly unpredictable. What seems like a perfect start to the day can become a foggy and cloudy afternoon and even a rain-soaked evening. This is the very charm of the hill station. It gives the best of both worlds.



Scenario After Rain In Darjeeling

We Visited Darjeeling 7th in the month of April this year. The temperature ranges anywhere between 9 degrees during the day and 17 degrees during the night. First two days of trip the sky was cloudy and a little rainfall. But later 3rd day the weather was so pleasant, it offers crisp and cool winds in the day, pleasant evening breeze and chilly nights.



Scenario Of Clear Sunny Morning



## DATE OF JOURNEY

- 1) 07/04/2022
- 2) 08/04/2022
- 3) 09/04/2022
- 4) 10/04/2022

## ROUTE OF JOURNEY

### Start Of Journey (07/04/2022):-

Our journey started from Suri station by Ranchi-Kamakhha express which was scheduled on 4.30 am .There we had started our journey by boarding our train and reached to New Jalpaiguri junction (NJP junction ) at 12.40 pm. Then we hired a bus outside NJP junction to reach our destination Darjeeling via Kurseong road and finally reached their at 6.30 pm.

### Duration Of Journey:-

In our journey We stayed for two days for two (08/04/2022 and 09/04/2022) in Darjeeling and visited some selected spot to complete our educational tour.

### End Of Journey (10/04/2022):-

Today is the last day of our educational tour/ excursion journey .We started our last day returning journey from Darjeeling via Mirik route and visit places like Pashupati Market which was also the gate entrance of Nepal .We returned to NJP at around 8.30 am .Our train time was scheduled on 3.30 am in the next morning at NJP which was Kamakkha-Ranchi express .We returned at Suri at around 12.30 pm . In this way we ended our excursion journey with lots of happy memories.



7<sup>th</sup> April, 2022

Finally the day came when we were fully prepared to start our excursion journey to **Darjeeling**. At around 3.45 am we reached to Suri station. The **Ranchi-Kamakkhya** express took us to our dream place. At around 12 pm we reached **NJP**. After lunch we headed to Darjeeling.

On the way we spend some times in **Kurseong** to see the beautiful scenarios,



Scenario from Kurseong



At Kurseong

Our journey again started towards our hotel, Darjeeling. About 6.30 pm we reached the hotel, **orchid**, near the mall road. At 7.30 pm we all went explore the place. We went to **Darjeeling** station, saw a **toy train** also and enjoyed the evening.



Night view of Darjeeling



Toy train



View from Darjeeling station

**8<sup>th</sup> April 2022**

The next day we decided to start our day by seeing the beautiful sunrise. We visited **tiger hill** at about 4:30 am. But due to foggy weather we are unable to watch the sunrise .

Although the scenario from the tower was totally magnificent. We spend 2 hours at tiger hill.



**Tiger hill at 5 am**



**Towards tiger hill**

On our return way from tiger hill we visited the **Yiga Choeling Monastery** and then the **Peace Pagoda monastery**. There we spend our time, clicked pictures and enjoyed a lot.

At about 8.30 am we went to visit **Batasia loop**. The scenario was awesome.



**Yiga Choeling Monastery**



**View from Batasia loop**



**Batasia loop**

At afternoon we back our hotel, had lunch and went for marketing. The weather was not with us. Rainy weather mesmerized us. It gave us a mixed feelings.



9<sup>th</sup> April, 2022

It was the 3rd day in Darjeeling. At 10 am after breakfast we gathered at the hotel lounge and started walking towards **Padmaja Naidu Himalayan Zoological Park**. Red panda, himalayan bear, cheetah, royal bengal tiger attracted us the most. We visited the **Hilamalan Mountaineering Institute**. It was a great experience.



**Padmaja Naidu Himalayan Zoological Park**



**Himalayan mountaineering Institute**

On our returning way at around 2 pm we visited the **Happy valley tea garden** and then **Nightingale park**. It took a long time (about 3 hours) to reach there but we enjoyed the whole journey walking together.



**Happy Valley Tea Garden**



**Nightingale Park**

Then we went back to our hotel and our lunch was waiting for us. After taking some rest we went out for the most awaited place **Darjeeling mall** about 6 pm. We spend the evening there by shopping , eating, taking selfie etc.



**Darjeeling Mall**



**View of mall**





10<sup>th</sup> April, 2022

This was the last day of the memorable journey. We checked out from hotel around 12 o'clock at noon. By bus we reached to **India-Nepal International Border**. It takes around two and a hour to reach . Spending about two hours at **Pashupati Nath Market**(across the border of Nepal's side) we headed to Mirik Lake.



**Entrance of Nepal**



**Mountains landscapes through roads**

Mirik is about 30 miles from Darjeeling town. The road continues Mirik through scenic tea gardens and Mountains landscapes. At Mirik, we enjoyed boating as well as scenario of Beautiful Garden .Around 5:30 P.M ,we headed toward New Jalpaiguri Railway Station for boarding our train.



**Tea gardens on the sides of the roads**



**Scenic View of Mirik Lake**

## BEHAVIOURAL ACTIVITIES OF SOME ANIMALS

### Himalayan Palm Civet (*Paguma larvata* Hamilton-Smith, 1827)

The Masked Palm Civet or Himalayan Palm Civet (*Paguma larvata*) is a species of Civet spread across the Indian subcontinents and Southeast Asia. The Himalayan Palm Civet is distinguished from other Indian Civets by its white whiskers and by the absence of any trace of spots or stripes on its body. Its coat ranges from uniform grey to tawny; the under parts white. Under wool brownish, grey or sooty.



#### FAST FACTS :-

**Diet :** The Masked Palm Civet is an omnivore, but the largest component of its diet is fruit, in addition it eats small insects,vertebrates (such as squirrels and birds).

**Body Length :** 2 ft.

**Weight :** 3.6- 5.0 kg

**Gestation Period :** 60 days

**Life Span :** 10-14 yrs

**Conservation Status :** Least Concern (IUCN) Schedule

**Young per Birth :** 1-4

### Grey Peacock Pheasant (*Polyplectron bicalcaratum* Linnaeus, 1758)

The Grey Peacock Pheasant (*Polyplectron bicalcaratum*) also known as Burmese Peacock or Chinquis Peacock Pheasant is a large Southeast Asian member of the order Galliformes. It is rather closely related to the peafowl (*Pavo*), and like these and like most other *Polyplectron* has brilliant eyespot on its plumage. It is the national bird of Burma.

The male is grayish brown with short-tufted crest and long broad tail. It is finely spotted and barred with whitish, and strikingly marked with whitish-rimmed iridescent purple and green ocelli on mantle, wing-coverts, tertials, uppertail-coverts and tail. The female is similar, but is smaller, with shorter tail and shorter crest, and is more uniformly brown with smaller and duller ocelli on mantle, wing-coverts and tail.

Distributed in the central and eastern Himalayas and northeast India



#### **FAST FACTS:-**

Body Length: 48 cm

Body Weight: 568-910g

Breeding Season: March-June.

Incubation Period: 21 days

Diet: They eat a wide variety of foods, including berries, fruits, seeds, wild figs, grubs, snails and insects.

Life Span: 9-10 years



### African Grey Parrot (*Psittacus erithacus* Linnaeus, 1758)

African grey parrot (*Psittacus erithacus*) is regarded as the most intelligent bird, their overall gentle nature and their inclination and ability to mimic speech have made them popular pets. They are all gray (darker on back and wings) but with a dramatically contrasting scarlet tail. Adult bird's eyes are pale yellow; young birds have brown eyes. Their bills, feet and legs are almost black in color. Males and females are alike in appearance. Found in villages of west and central Africa from Sierra Leone east to Cameroon, including Zaire, Uganda, West Kenya and northwest Tanzania, as well as on the Sesse islands in Lake Victoria.



#### FAST FACTS :-

Body Length: 33 cm

Body Weight: 400-650 g

Breeding Season: The breeding season varies by locality, but appears to coincide with dry season.

Clutch Size: 2-5

Incubation Period: 25-30 days

Diet: Feed on seeds, nuts, fruits and. Berries gathered mostly in treetops.

Life Span:40-60 years.

### Slow Loris (*Nyctibus coucang* Boddaert, 1785)

The animal has a round head, narrow snout, large eyes and a variety of distinctive coloration patterns that are species-dependent. Their arms and legs are nearly equal in length and their trunk is long allowing them to twist and extend to nearby branches the hand and feet of slow loris have several adaptations that give them a pincer-like grip and enable them to grasp branches for long periods of time. They reside primarily in the main tree canopy of tropical Southeast Asian rainforests.



#### **FAST FACTS:-**

**Distribution :** In India the Slow Loris is found in the states of Assam, Arunachal Pradesh Nagaland, Manipur, Tripura, Mizoram and Meghalaya. This species is found in Bangladesh, Brunei, Burma, Cambodia, India, Indonesia, Laos, Malaysia, Thailand, the Philippines and Vietnam.

**Breeding :** Slow lorises are polygamous and breed throughout the year. After an approximately 190-day gestation, the female births one (or rarely two) young.

**Diet :** Slow Loris are opportunistic carnivores, typically eating insects, mollusks, lizards, birds eggs and small vertebrates.

**Threats :** Habitat loss.

**Conservation :** Vulnerable or Endangered (IUCN) Schedule I (WPA).

### Black Panther (*Panthera pardus* Drury, 1773)

A Black panther is the melanistic colour variant of any panther species. Black panthers in Asia and Africa are leopards (*Panthera pardus*) and black panthers in America are black jaguars (*Panthera onca*). Close examination of black cats will show that the typical markings are still present, but are hidden by the excess pigment melanin, giving an effect similar to that of printed silk. This is called "ghost striping".

Melanism in Leopards is conferred by a recessive allele.

This panther is commonly identified as "Bagheera" a fictional character in Rudyard Kipling's Mowgli stories in *The Jungle Book* (coll. 1894).



#### FAST FACTS:-

Body Length : 4-5 ft

Weight : 30-50 kg

Gestation Period : 90-105 days Young per Birth : 2-4

Diet : Ungulates, monkeys, rodents, reptiles, amphibians, birds and fishes.

Life Span : 12 years (wild); 20 years (captivity).



### Himalayan wolf (*Canis lupus himalayensis* Gray, 1863)

The Himalayan wolf has been suggested by several Indian biologists for recognition as a critically endangered canid species, distinct from *Canis lupus*. Results of mitochondrial DNA analysis suggest that the Himalayan Wolf is phylogenetically distinct from the Tibetan wolf *Canis lupus chanco*. Its size, large skull, and teeth distinguish the wolf from the rest of the family.

The Himalayan Wolf population is found only in the upper Trans-Himalayan region of India across the two northern most states Himachal Pradesh and Jammu & Kashmir with only about 350 individuals in the wild.



#### FAST FACTS:-

Body Length: 3 ft- 3 ft 6 inch

Tail: 14-16 inch

Weight: 25-30 kg

Gestation Period: 61- 63 days

Young per Birth: 3-9

Diet: They feed primarily on medium to large sized ungulates. Life Span: 12-15 years.

### Asian Palm Civet (*Paradoxurus hermaphroditus* Pallas, 1777)

Asian Palm Civet is a black or blackish-brown civet with long coarse hair. It is also commonly known as Common Palm Civet or Toddy cat. The name toddy cat comes from the name for wine that comes from the sap of the Palm tree: toddy. The Palm Civet feeds on this sap.

It is found in Kashmir, the Himalayas, and Assam southwards through the whole of the Peninsula, except in the desert zones of Sind, the Punjab, Burma and the Indo-Chinese and Malaya countries.



#### FAST FACTS:-

Body Length : 53 cm

Diet : Mainly feed on fruits, but they will also eat rodents, birds and insects.

Weight : 2-5 kg.

Life Span : 10-15 years.

Gestation Period : 60 days Conservation Status: Least Concern (IUCN) Schedule.

Young per Birth : 2-5 (WPA)

### Red Panda (*Ailurus fulgens*)

The red panda is slightly larger than a domestic cat with a bear-like body and thick russet fur. The belly and limbs are black, and there are white markings on the side of the head and above its small eyes. Red pandas are very skilful and acrobatic animals that predominantly stay in trees.



#### Distribution and habitat:-

The red panda inhabits Nepal, the states of Sikkim, West Bengal and Arunachal Pradesh in India, Bhutan, southern Tibet, northern Myanmar and China's Sichuan and Yunnan provinces.

The metapopulation in protected areas and wildlife corridors in the Kangchenjunga landscape of Sikkim and northern West Bengal is partly connected through old-growth forests outside protected areas.



#### Behaviour and Ecology:-

Place in captivity. The red panda appears to be both nocturnal and crepuscular, sleeping in between periods of activity at The red panda is difficult to observe in the wild, and most studies on its behaviour have taken night.

#### Social Spacing:-

Adult pandas are generally solitary and territorial. Individuals mark their home range or territorial boundaries with urine, faeces and secretions from the anal and surrounding glands. Scent-marking occurs more on the ground, and males mark more often and for longer periods than females.



### **Diet and Feeding:-**

The red panda is largely herbivorous and feeds primarily on bamboo, mainly the genera *Phyllostachys*, *Sinarundinaria*, *Thamnocalamus* and *Chimonobambusa*.

The red panda grabs food with one of its front paws and usually eats sitting down or standing, but sometimes lays on its back. When foraging for bamboo, it grabs the plant by the stem and bends it down so the leaves are within reach of the jaws. It inserts them into the side and shears and chews them. It nips small food like blossoms, berries and small leaves with the incisors.

### **Population:-**

Less than 10,000 individuals

### **Extinction Risk-**

Endangered

Red pandas are often killed when they get caught in traps meant for other animals such as wild pigs and deer. They are also poached for their distinctive pelts in China and Myanmar. Red panda fur caps hats have been found for sale in Bhutan.

### **Conservation:-**

The red panda is listed in CITES Appendix I and protected in all range countries; hunting is illegal. It has been listed as Endangered on the IUCN Red List since 2008 because the global population is estimated at 10,000 individuals, with a decreasing population trend. A large extent of its habitat is part of protected areas.

## CONCLUSION

Now that our Field Trip excursion has come to an end and we have figured out where we are going on our end of the year college trip, firstly I want to thank of you all for doing such a great job on the excursion. Every one of you all worked great in your groups and really pulled together to come up with the correct conclusion!

I hope by now after everything is said and done you all have a better understanding of fractions and feel comfortable with working and comparing fractions as well as working with charts.

I hope you all have had a great time working with your classmates on this excursion and have learned a lot, but make sure you have a great time on your field trip because you all deserve it!

# REPORT ON STUDY OF FRESH WATER FISH PARASITE DIVERSITY IN CHANDIPUR AND IT'S SURROUNDING AREA

ODISHA



Date: 18th February 2023 - 22rd February 2023

SUBJECT- ZOOLOGY

M.SC SEM-IV

PRACTICAL EXAMINATION 2023

COURSE CODE - MSZO 406 (DE-5)

SUBMITTED BY:-

ROLL NO- BUR/ZOO/2021/092

REG. NO- 201801050893 OF 2018-19

SESSION - 2021-2023



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## CERTIFICATE

*This is to certify that Shilpa Roy, Registration No - 201801050893 of 2018-19, Roll No. BUR/ZOO/2021/092) M.Sc. 4th Semester student of Department of Zoology, Suri Vidyasagar College, has successfully completed her field report after her participation in an extensive field work performed in Chandipur seashore, Devkund and surrounding fish market of Chandipur, Odisha during the period of an educational tour organized by the Department of Zoology, Suri Vidyasagar College from 18/02/2023 to 22/02/2023 (session-2022-23) for the partial fulfilment of the Post Graduation in Zoology (paper code- MSZO406-DE5) during the year 2021-2023.*

*Date: 05/08/2023*

*Suri*

  
.....

*Mr. Dhaniram Biswas*

*Head Of Department*

*Department Of Zoology*

*Suri Vidyasagar College, Suri, Birbhum*

## ACKNOWLEDGEMENT

*It is an excellent opportunity for me to explicate my deep sense of gratitude to the respected teachers of my Department of Zoology, Suri Vidyasagar College, Mr. Dhaniram Biswas, Head of Department, Mrs. Dipa Mandal, Mr. Uttam Kumar Sen, Dr. Chandrik Malakar, Mrs. Srishti Biswas, for suggesting and conducting present field work at the Chandipur seashore, Devkund and surrounding fish market of Chandipur, Odisha.*

*I would like to thank all the professors of my department for their guidance in spite of their busy schedules.*

*I'm grateful to Mr. Uttam Kumar Sen and my classmates for their excellent photography of our entire tour and helping us in composing our field report.*

*I would also like to express my heartfelt appreciation of my parents and other family members for their constant inspiration and financial support during the entire field work.*

Date: 5/8/23

Suri

.....  
Shilpa Roy.

Signature



## Introduction:

Field visits serve as an indispensable component of the educational journey for Zoology M.Sc. shift from classroom theories to real students, offering a dynamic -world applications. These experiences hold immense value in broadening our understanding of the subject, fostering practical skills, and nurturing a deeper appreciation for the complexities of the natural world. As aspiring zoologists, these field excursions provide us with the opportunity to bridge the gap between theoretical knowledge and hands-on engagement, thus enriching our academic pursuits.

The multifaceted benefits of field visits lie in their potential to immerse us in diverse ecosystems, each with its unique characteristics and inhabitants. Whether it's a coastal ecosystem, a freshwater stream, a forest habitat, or a specific niche like a local fish market, each site provides a distinct canvas on which to explore the intricacies of life forms, their interactions, and the ecological factors that shape them. This exposure broadens our horizons and helps us appreciate the astonishing diversity that exists in nature.

Additionally, field visits offer an unparalleled chance to observe and interact with organisms in their natural habitats. The firsthand experience of seeing animals in their element enhances our understanding of their behaviors, adaptations, and ecological roles that might not be fully comprehensible through textbook descriptions alone. This experiential learning deepens our connection to the subject matter and fosters a sense of wonder, igniting our curiosity and driving further exploration.

Furthermore, field visits serve as a platform for honing practical skills that are essential for a career in zoology. Techniques such as species identification, specimen collection, and

preservation are best learned in situ. Engaging in hands-on activities like using nets to catch fish, observing the intricacies of plant-animal interactions, and conducting surveys enable us to refine our observational skills and develop a keen eye for detail. These skills not only bolster our confidence but also equip us with the tools needed for future research endeavors.

A crucial aspect of field visits is the exposure to the complex dynamics of ecosystems and the challenges they face due to anthropogenic factors. Witnessing firsthand the impact of pollution, habitat degradation, and climate change on different habitats underscores the urgency for conservation efforts. This awareness is essential for us, as future zoologists, to advocate for sustainable practices and contribute meaningfully to the conservation of biodiversity.

Collaboration and communication are intrinsic to the success of any scientific endeavor. Field visits provide a unique environment for students to interact with their peers, mentors, and local communities. Working alongside fellow students fosters teamwork and the exchange of ideas, allowing us to learn from diverse perspectives. Engaging with local experts, be it fishermen, conservationists, or researchers, offers insights rooted in practical experience and local wisdom, enriching our academic journey with real-world insights.

Undertaken as a culmination of our academic journey, this field visit to Chandipur Seashore, Devkunda Forest Stream, and the Local Fish Market in Balasore, Odisha, stands as an epitome of experiential learning and practical application in the realm of fish parasite diversity. As final-year postgraduate students specializing in Parasitology, this endeavor aimed to blend classroom knowledge with hands-on experience. The geographical and environmental significance of these sites provided a unique platform to delve into the



intricate interactions between fish hosts and their parasites, and to master the art of collection and preservation for future scientific endeavors.



**Chandipur Beach**



## Chandipur Beach

Chandipur is also called as the Chandipur-on-sea. It is a tiny sea resort located in the district of Balasore, in the state of Odisha, India. It is positioned on Bay of Bengal . The Chandipur beach is nearly 16 kilometers away from the Balasore railway station. Chandipur is positioned at the  $21.47^{\circ}$  N and  $87.02^{\circ}$  E. It is perched at an average altitude of 9.8 feet. This township of Chandipur is about 51,330 acres in size. The peaceful beach located at Chandipur region is certainly one of the finest beaches in the country.



This beach is exceptional in the matter that the sea water move away from one to four kms during the outgoing tide. Due to these exclusive circumstances, this beach of Chandipur supports the bio-diversity.

### **Speciality about Chandipur beach**

The Chandipur beach is mainly famous for its calmness and natural beauty that gives solace and peace of mind to the tourists who come to enjoy their vacation on this beach. Tourists can also enjoy various beach sports and water sports in this



beach. The Chandipur beach together with its plentiful drift-woods and beautiful sea shells is an ideal and worth package for the beach and sea lovers.

### *Attractions nearby Chandipur beach*

If you wish to enjoy more places nearby the beach, there are plenty like mentioned below:

#### **Panchalingeswar**

This shrine is about 45 kms away from the Chandipur beach. In the midst of lush greenery of the magnificent Nilgiri Hills together with the bird's-eye sights around, this is a spot of amazing scenic beauty and is hallowed by the 5 lingams above which flows a continuing stream of clear water. The devotees need to lie even on the rocky ground just parallel to that continuing stream for touching and worshipping the Shiva lingams, which also is very exciting as well as adventurous. A large number of elephants could be seen in the area. The area surrounding the Panchalingeswar is a perfect base for the adventure sports like trekking. There is also a guest house run by the Tourism Department of Odisha, near this shrine, where the tourists can stay for the night.





## Remuna

This place is about 25 kms away from the Chandipur beach and is famed for the temple of the Khirachora Gopinath - seat of the Vaishnavite culture since many centuries.

Madhavendrapuri, who was Chaitanya's teacher, Sri Chaitanya Mahaprabhu and his follower Jeevaswami Goswami have stayed in this temple and also worshipped the deity. Khira which is a special dish prepared from milk is the main and tasty offering of this temple. The Kadamba and Champak trees which are inside the compound of this temple fill the temple's air with a scented and sweet fragrance every time.

## Aradi

Aradi is also a close by attraction of the Chandipur beach. This place is mainly famed for the shrine of the Lord Shiva, also called here as the Lord Akhandalamani. A huge number of devotees come to this place every day to get recovery from the diseases they are having.

## Similipal

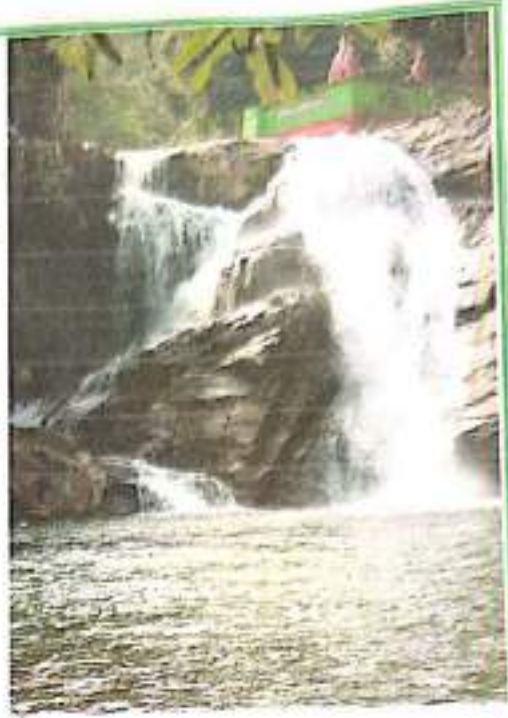
This area which is covering nearly 2750 sq. km of land includes thick and green woodland, vertical and the shining beautiful cascades, magnificent sky touching peaks of mountains and a striking place for the animals as well as bird lovers. All these above things make this place called Similipal a dream destination for the tourists.





## Devkund

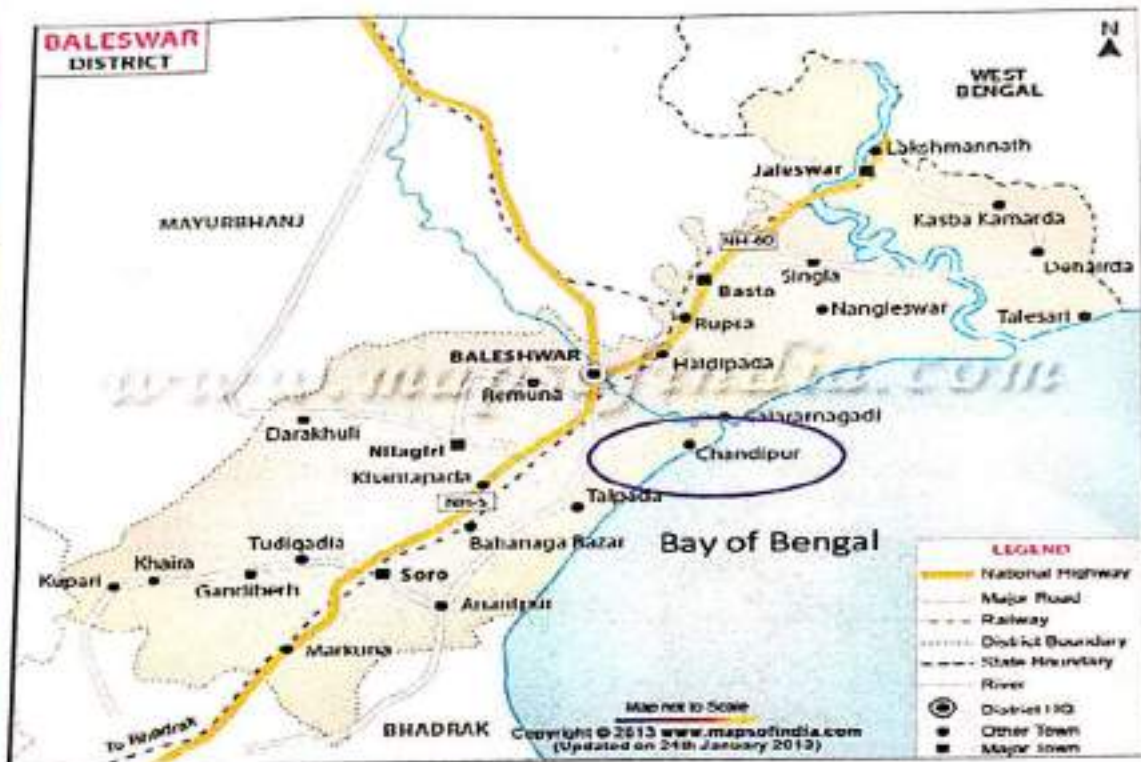
This place is also a close by attraction of the Chandipur beach. This place is mainly admired for its steep and enchanting cascades of clear water, picturesque beauty of the countryside and also a shakti peeth which is located on the outskirts of the Similipal.



## Gopinath Temple

This temple is nearly 9 kms away from Chandipur beach. Sree Gopinath is that divinity who stole sweet rice for the Madhavendra Puri. He is worshiped together with Sree Gopinath at the altar. The other deities of this temple are Sree Madana Mohana, Sree

Govinda, Sree Radha Rasabihari and Sree Chaitanya Mahaprabhu together with the Lord Jagannatha and many shalagram shilas are there. Lord Gopinatha, bordered by Sree Govinda and Sree Madana Mohana, made up of the black stone is considered holy by the devotees. Sree Gopinatha stands into the bas relief. Govinda as well as Madana Mohana, were acquired from the Vrindavan in the year 1938 by one devotee called Chaitanya Das Babaji, are standing free there. The devotees get tasty kheer, which here is called as amrita keli.



**Baleswar District Map**





Chandipur Sea Beach



Local Fisherman



Red Crabs on Chandipur Sea Beach



Local Fish Market



Local Fisherman with their fishing net



Fishing Boat



Sea Beach



Prawn





Sunrise at Chandipur Beach



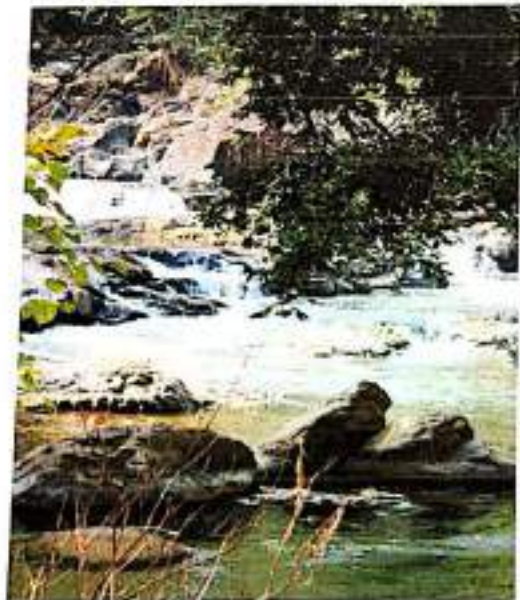
Red Crab



Conch Shell



Spiral Seashell



Devkund surrounding area

## Tour Diary

From 18th to 22nd February 2023, the Zoology Department of Suri Vidyasagar College embarked on an educational study tour to Balasore, Odisha. The tour aimed to provide students with hands-on experiences in the field of zoology, exposing them to various ecosystems and biodiversity present in the region.

### **Day 1: Departure and Arrival (18th February 2023):**

The study tour commenced on a crisp morning at Suri station, where the enthusiastic students gathered to board the Maurakshy Express. The train journey was scheduled via Howrah to Balasore, Odisha. After an eventful day of travel, the group reached Balasore at 6:00 PM on the same day. Following our arrival, we checked into a comfortable hotel and prepared for the days ahead.

### **Day 2: Exploring the Sea Shore and Local Fish Market (19th February 2023):**

With the sun rising over Balasore, the 19th of February saw the students heading to the sea beach to explore the intricate marine ecosystem. Armed with magnifying glasses and notebooks, the students carefully observed and documented various marine organisms thriving in their natural habitat. In the afternoon, we visited the local fish market, where the students engaged in insightful conversations with local fishermen to gain a deeper understanding of the diverse fish species found in the region.

### **Day 3: Discovering Devkund and Panchalingashar Mandir (20th February 2023):**

The 20th of February was dedicated to local sightseeing. A visit to the Devkund, a religious and tourist spot situated in the Mayurbhanj district, marked the highlight of the day. The awe-inspiring waterfall cascading from the hilltop left the students mesmerized. Alongside Devkund, the Panchalingashar Mandir allowed us to collect and preserve stream water for subsequent analysis of planktons and microbes. Notably, the entire area falls under the



jurisdiction of the Kuldiha Wildlife Sanctuary range, sprawling across 272.75 square kilometers in the Balasore district. The sanctuary, linked with the Simlipal National Park, boasts Eastern Highlands moist deciduous forests.

#### **Day 4: Further Exploration and Local Market Visit (21st February 2023):**

Continuing our exploration of the seashore, the 21st of February saw the students collecting specimens and expanding their understanding of coastal biodiversity. The afternoon presented an opportunity for cultural immersion, as the students visited the local market, experiencing the unique flavors and cultural elements of the region. As the sun set, the evening was reserved for a cultural program, organized by our esteemed faculty. The program showcased local traditions, fostering a sense of unity among the students. The day concluded with a grand feast, generously arranged by our mentors.

#### **Day 5: Return to Suri (22nd February 2023):**

On the 22nd of February, the students bid farewell to the picturesque landscapes of Balasore and began their journey back to Suri. Retracing the same route, the group reminisced about the enriching experiences and valuable knowledge gained during the tour.





### **Detail of our Study on fish parasite:**

On day 2 of our expedition, which was February 19, 2023, we embarked on a research journey to the local fish market situated near the picturesque Buribalam river. Our primary objective was to gather valuable data pertaining to sea fish parasites. Amidst the bustling environment of the market, we also had the privilege of witnessing the arrival of diligent fishermen in their boats, fresh from their sea voyages. Their stories and experiences added depth to our understanding of the local fishing industry.

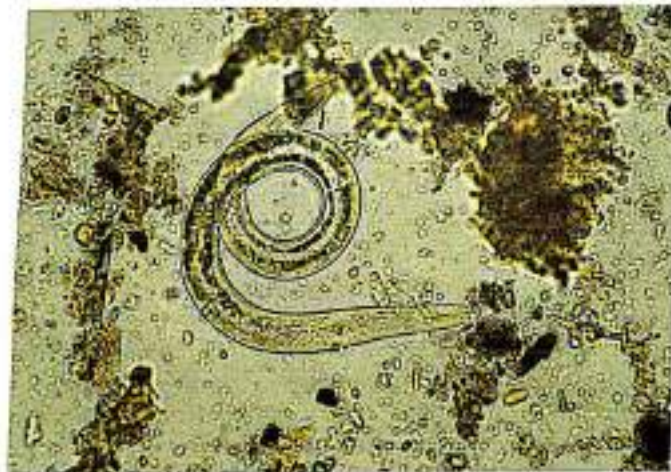
In addition to our market exploration, we had the opportunity to interact with Dr. Jyotirmayee Pradhan, an esteemed Assistant Professor at K.K.S. Women's College in Balasore. Dr. Pradhan shared her insights about the prevalent local fish parasitic diseases in the Chandipur area and its surrounding regions. Her expertise proved to be a valuable resource, enhancing our knowledge of the intricate relationship between fish and parasites in the ecosystem.

Moving on to day 3, our exploration led us to the captivating site of Devkunda. Here, we collected samples of stream water with the intention of subjecting them to microscopic observation. Back at the college laboratory, we diligently examined the collected water samples under the microscope's lens. This meticulous observation unveiled a diverse array of microbes, some of which held the potential to be parasitic organisms affecting fish. This part of our journey illuminated the interplay between waterborne microbes and the aquatic life they might influence.

In essence, these initial days of our expedition were marked by immersive experiences that ranged from bustling fish markets to serene streamside locales. Our interactions with fishermen, experts, and microscopic observations collectively enriched our understanding of sea fish parasites and the intricate ecological balance they contribute to, setting a solid foundation for the rest of our research journey.

**List of Some Fresh water fish Parasites In and around  
Chandipur and its Surrounding**

Name of the parasite	Host fish	Affected area
<i>Myxobolus Sp.</i>	<i>Labeo Sp.</i>	Kidney
<i>Thelohallenus Sp.</i>	<i>Labeo Sp.</i>	Gill
<i>Aeromonas Sp.</i>	<i>Catla Sp., Labeo Sp., Mrigala Sp.</i>	Skin, Abdomen And Fins Bases
<i>Flavobacterium Sp.</i>	<i>Catla Sp., Mrigala Sp., Cat Fish</i>	Caudal Fin
<i>Dactylogyrus Sp.</i>	<i>Anabus Sp.</i>	Gill
<i>Gyrodactylus Sp.</i>	<i>Anabus Sp.</i>	Gill
<i>Heteropolaria Sp.</i>	Cat Fish	Gill



## **Conclusion:**

The study tour to Balasore, Odisha, proved to be a remarkable educational journey for the Zoology Department students of Suri Vidyasagar College. It not only expanded their academic horizons but also provided them with an opportunity to witness and appreciate the diverse ecosystems, rich biodiversity, and cultural heritage of the region. The tour deepened the students' passion for zoology and fostered lasting memories and friendships.





## Industrial Visit Certificate

This is to certify that students of Department of Microbiology, Suri Vidyasagar College visited our factory and processing unit on 13.04.2022. They were given first hand information of the entire tea history and processing. They participated in a guided factory tour in which the history of tea and the different stages of tea processing like withering, crushing, cutting/tearing/curling, fermentation, drying, cleaning and grading was explained to them. The students showed keen interest in knowing all aspects about tea manufacture.

**Place:** *Happy valley Tea Garden, Doojoolij*

**Date:** *13/04/2022*

**Authorised Signatory**

  
MANAGER  
HAPPY VALLEY  
TEA ESTATE

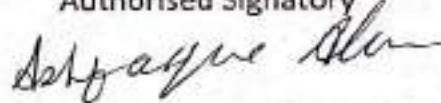
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Place: Darjeeling

Date: 13/04/2022

Authorised Signatory



For, Raju Bakery

Partner

**Name – One Day Educational Field Survey: (Session 2018-2019)**

**Place:** Boner Pukur Danga, Santiniketan, Birbhum

**Date:** 27/11/2018

**No. of Participants:** Students of 3<sup>rd</sup> year (11 students)

**Teacher Escorts:** Ranajit Ghosh, Sabyasachi Das

**Laboratory Attendant:** Minu Das



Students from the 3<sup>rd</sup> year conducted a one-day educational field survey to Boner Pukur Danga, Santiniketan, Birbhum, located 33 km from Suri, Birbhum. They arrived at the starting point opposite Suri Vidyasagar College around 7:00 am on the specified day. The primary objectives were to assess the socio-economic status of Boner Pukur Danga village and to describe the physical, social, and cultural characteristics of the study area. Following lunch, the group returned to Suri by evening.



**Name – One Day Educational Field Survey: (Session 2019-2020)**

**Place:** Goalgram, Birbhum

**Date:** 12/11/2019

**No. of Participants:** Students of Semester-V (13 students)

**Teacher Escorts:** Ranajit Ghosh, Hemanta Sutradhar

**Laboratory Attendant:** Minu Das



Students in the fifth semester conducted a one-day educational field survey to Goalgram, Birbhum, situated approximately 18 km from Suri, Birbhum. They gathered at the starting point, Suri Vidyasagar College, around 8:00 am on the specified day. The main objectives included assessing the socio-economic status of Goalgram village and describing the physical, social, and cultural characteristics of the study area. Additionally, they aimed to understand the employment opportunities available to local residents amidst modernization and to highlight and recommend solutions for the area's challenges. After lunch, the group returned to Suri by early afternoon.

**Name – One Day Educational Field Survey: (Session 2022-23)**

**Place:** Kamalpur, Suri, Birbhum

**Date:** 23/11/2022

**No. of Participants:** Students of Semester-V (11 students)

**Teacher Escorts:** Hemanta Sutradhar, Ranajit Ghosh, Chaitali Gorai

**Laboratory Attendant:** Minu Das



Students in the fifth semester conducted a one-day educational field survey to Kamalpur village, Birbhum, located approximately 8 km from Suri Vidyasagar College. They gathered at the college's starting point around 9 am on the specified day. The primary goals were to assess the socio-economic status of Kamalpur village, document the physical, social, and cultural characteristics of the study area, explore local employment opportunities amidst modernization, and propose solutions for the area's challenges. After lunch, the group returned to Suri Vidyasagar College by early afternoon.

# **Educational Excursion Report**

## **2019-23**



**Department of English**  
**Suri Vidyasagar College**  
**Suri, Birbhum**



1. NAME – ONE DAY EDUCATIONAL EXCURSION

PLACE- Go Green Park, Gobra

DATE- 26.02.2022 (Session 2021-2022)

NO. OF PARTICIPANTS – 30

TEACHER PARTICIPANTS- Dr Susanta Kumar Bardhan, Saurav Chakrabarti, Nabanita Roy, Md Tausif Ahamed



1. NAME – ONE DAY EDUCATIONAL EXCURSION

PLACE- Tasarkata, Birbhum

DATE- 07.02.2023 (Session 2022-2023)

NO. OF PARTICIPANTS – 35

TEACHER PARTICIPANTS- Dr Susanta Kumar Bardhan, Saurav Chakrabarti, Debarati Chandra, Nabanita Roy, Md Tausif Ahamed



# Field Trip 2022-2023

A Field Trip was organized by Department of Plant Protection, Suri Vidyasagar College for collection of specimens of insects, diseases and weeds and surveillance at Gobra Village, Kendua on 18/08/2022 at 12.00 noon.







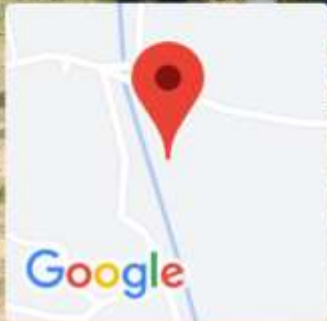
## Hatanbazar P, West Bengal, India

VGXV+8M Kendua Bridge, Hatanbazar P, West Bengal 731101, India

Lat 23.897214°

Long 87.544826°

18/08/22 12:50 PM



## **Suri Vidyasagar College's Philosophical Journey to Visva-Bharati**

In 2023, the Philosophy Department of Suri Vidyasagar College embarked on a study tour to Visva-Bharati, Santiniketan, delving into the institution's unique and rich cultural legacy.

The tour encompassed visits to the Visva-Bharati Museum, showcasing Tagore's vision of holistic education, and *Kanch Mandir*, a temple renowned for its unique architecture and tradition. A tranquil stroll through the Deer Park near Santiniketan provided a connection with nature's beauty. And the visit to the iconic Buddhist statue near Sonajhuri, where students and faculty engaged in thoughtful discussions on Buddhist philosophy and its relevance to contemporary society. Also, the exciting visit at Srijani Shilpagram near Vinay-Bhavana, a wonderful cultural complex set up by the Govt. of India to promote and preserve the art forms of India.

The study tour proved transformative, fostering a deeper understanding of Tagore's philosophy and its impact on Indian art, culture, and education. It enriched academic discourse and inspired personal reflections on the interconnectedness of knowledge, creativity, and spirituality.









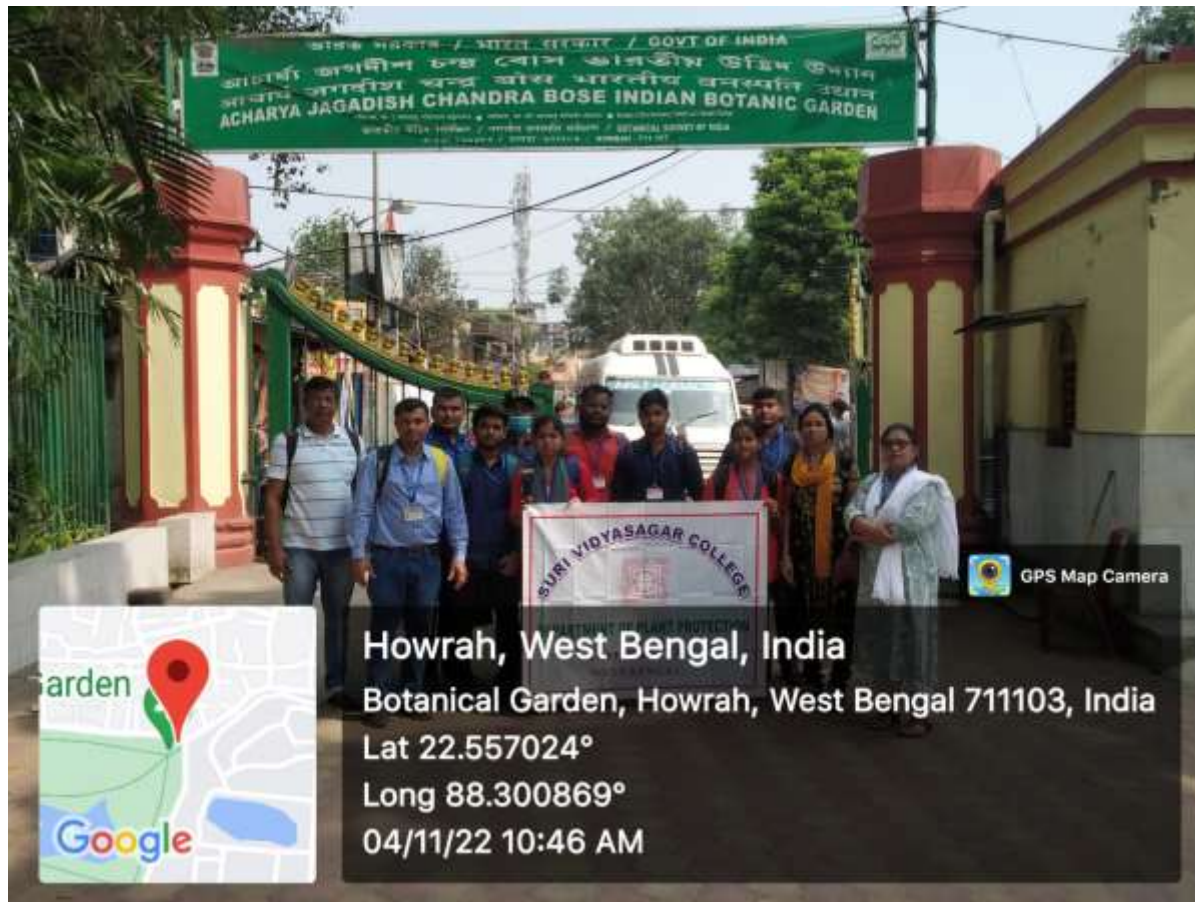




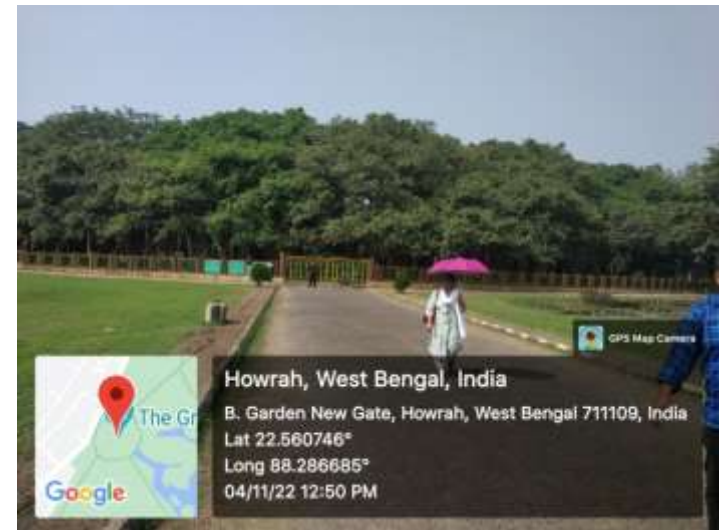


# Study Tour 2022-2023

A Study Tour was organized by Department of Plant Protection, Suri Vidyasagar College for B.Sc.(Bio) General students at AJC Bose Indian Botanic Garden, Howrah from 03/11/2022 to 04/11/2022













## Educational Tour Report (2018-2023)

### Department of Chemistry

### Suri vidyasagar College



#### Introduction:-

The Chemistry Department of Suri Vidyasagar College is committed to providing a comprehensive and dynamic educational experience for our students. As part of this commitment, we organize regular chemistry study tours that serve to bridge the gap between theoretical knowledge and practical application. Our study tours aim to enhance students' understanding of chemical processes, environmental chemistry, and biochemistry through direct observation and experimentation. By visiting diverse locations such as eco parks, historical sites etc. students gain valuable insights into the practical aspects of chemistry and its relevance to everyday life and the environment.

These educational excursions also foster a spirit of inquiry and critical thinking, encouraging students to apply classroom concepts to real-world challenges. Through guided tours, interactive sessions, and collaborative projects, students develop a deeper appreciation for the subject and its applications. The chemistry study tours of Suri Vidyasagar College are an integral part of our educational philosophy, enriching the academic journey and preparing our students for future scientific endeavours.



## **1) Session 2018-19**

The Chemistry Department of Suri Vidyasagar College embarked on an enriching educational excursion to Massanjore on 27<sup>th</sup> December 2018, accompanied by 29 students and teachers. The trip proved to be both educational and enjoyable, offering firsthand insights into the geological formations and hydroelectric power generation at the Massanjore Dam. Students engaged in interactive sessions, expanding their knowledge beyond textbooks. The excursion fostered camaraderie among peers and enhanced understanding of real-world applications in chemistry, making it a memorable learning experience for all participants.





## **2) Session 2019-20**

On 29th December 2018, the Chemistry Department of Suri Vidyasagar College organized a one-day educational tour to Garpanchakot, Purulia. A group of 32 students, accompanied by their teachers, embarked on this journey, departing



from the college at 7 am. The trip aimed to provide a practical learning experience, integrating classroom knowledge with real-world observations. Upon arrival, the students explored the historical site and its natural surroundings, gaining insights into various chemical processes in nature. The excursion was both informative and enjoyable, fostering a deeper understanding of chemistry while also offering a refreshing break from regular academic activities.



### **3) Session 2020-21 & Session 2021-22**

*Educational tour could not be done due to Covid-19 situation.*

### **4) Session 2022-23**

On 24th December 2022, the Chemistry Department of Suri Vidyasagar College organized an educational tour to Sabujban Eco Park, near Bolpur. A group of 32 students, along with their teachers, set off from the college at 8 am, filled with anticipation for a day of immersive learning. The journey was smooth and the group reached the eco park by mid-morning. At Sabujban, the students delved into the biochemistry of various plants in the garden. Guided by their teachers,

they explored different plant species, learning about their biochemical properties and ecological significance. The hands-on experience allowed students to connect theoretical knowledge with practical observations, deepening their understanding of plant biochemistry. The tour was both enlightening and enjoyable, offering a valuable blend of education and recreation amidst the lush greenery of the eco park.



### **5) Session 2023-24**

On 22nd December 2023, the Chemistry Department of Suri Vidyasagar College organized a one-day educational tour to Deul Park, Paschim Bardhaman. A group of 27 students, accompanied by their dedicated teachers, embarked on this academic excursion, leaving the college premises at 8 am. The primary objective of the tour was to integrate classroom learning with real-



world chemical phenomena, providing students with a holistic educational experience. The journey to Deul Park was filled with enthusiasm and a sense of curiosity. Upon arrival, the students were greeted by the park's serene environment, which provided an excellent backdrop for scientific exploration. The focus of the tour was to study various chemical processes occurring naturally within the park. Students engaged in examining the soil composition, water samples from the park's ponds, and the impact of local flora on the ecosystem's biochemistry. Under the guidance of their teachers, the students conducted several experiments and collected samples for further analysis. They observed the interactions between different elements in the soil and water, gaining practical insights into environmental chemistry. The tour also included discussions on the significance of sustainable practices and the role of chemistry in environmental conservation. The hands-on experience at Deul Park proved to be invaluable, as it allowed students to apply theoretical knowledge in a practical setting. This educational tour not only enhanced their understanding of chemistry but also highlighted the importance of preserving natural habitats. The day concluded with a reflective session, where students shared their findings and experiences, reinforcing the day's learning objectives. The tour was a resounding success, fostering a deeper appreciation for the subject and its real-world applications.







### **Concluding remarks:-**

On behalf of the Chemistry Department of Suri Vidyasagar College, we extend our heartfelt thanks to everyone who contributed to the success of our educational tours from 2018 to 2023. We are deeply grateful to our Principal sir of SVC for his unwavering support and encouragement in organizing these educational excursions. Special thanks to our dedicated teachers who guided and mentored the students throughout the trips, ensuring a seamless blend of learning and exploration.

A big thank to our students for their enthusiasm, curiosity, and exemplary conduct during the tours. Their active participation and eagerness to learn made this educational journey both enjoyable and enlightening.

Lastly, we acknowledge the efforts of everyone involved in the planning and execution of these tours. Team Chemistry Department of SVC's collective hard work and commitment made these events a memorable and enriching experience for all.

## **1. Departmental Excursion cum Picnic:**

Departmental Excursion-cum-Picnic is organized every year to relieve the boredom of routine bound academic life. Both the students and teachers of the department take part in these enjoyable as well as enlightening programmes. The photographs of these Excursions-cum-Picnics are preserved in the department.

Dates of Department Excursion-cum-Picnic:

2018-19 -> 11.01.19

2019-20-> 10.01.20

2022-23-> 12.12.23



## **1. Departmental Excursion cum Picnic: 2019**



## **2. Departmental Excursion cum Picnic: 2020**





### **3. Departmental Excursion cum Picnic: 2023**

