

REPORT ON SAIF

A visit to Sophisticated Analytical Instrumental Faculty (SAIF), North Eastern Hill University (NEHU), Shillong -793022

Visited on -9th September 2022

Prepared by-

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ZOOLOGY DEPARTMENT

Submitted on-15th May 2023

ATTACHMENT 1: BROCHURE/FLEX



**EDUCATIONAL VISIT TO THE SOPHISTICATED
ANALYTICAL INSTRUMENTATION FACILITY,
NORTH EASTERN HILL UNIVERSITY, SHILLONG**

**ORGANISED BY THE DEPARTMENT OF ZOOLOGY, ST. EDMUND'S
COLLEGE SHILLONG AS PART OF THE 60 YEARS CELEBRATION
OF THE DEPARTMENT OF ZOOLOGY
DATE : 9th SEPTEMBER 2022**

ATTACHMENT 2: LIST OF PARTICIPANTS

| | | | |
|----|-----------------------|----------------------------|-------------------|
| 1 | Steven Syiemlieh | Department of Zoology, SEC | Student |
| 2 | Gloria B. Khongwir | Department of Zoology, SEC | Student |
| 3 | Mebalari Syiemiong | Department of Zoology, SEC | Student |
| 4 | Dominica Pohlong | Department of Zoology, SEC | Student |
| 5 | Eiweimanki Sumer | Department of Zoology, SEC | Student |
| 6 | Prasasti Sarma | Department of Zoology, SEC | Student |
| 7 | Sankiewnam Chyrmang | Department of Zoology, SEC | Student |
| 8 | Melarishisha K.Lynser | Department of Zoology, SEC | Student |
| 9 | Shradha Sinha | Department of Zoology, SEC | Student |
| 10 | Samadrita Deb | Department of Zoology, SEC | Student |
| 11 | Elizabeth R Sanate | Department of Zoology, SEC | Student |
| 12 | Asmita Kilikdar | Department of Zoology, SEC | Student |
| 13 | Isha Ado | Department of Zoology, SEC | Student |
| 14 | Aidahun Pala | Department of Zoology, SEC | Student |
| 15 | Roshmita Das | Department of Zoology, SEC | Student |
| 16 | Priyanka Agarwal | Department of Zoology, SEC | Student |
| 17 | Dr. Duwaki Rangad | Department of Zoology, SEC | Teacher in-charge |

ATTACHMENT 3: COMPREHENSIVE REPORT

Introduction

On 9th September 2022 , 16 students along with four teachers went to NEHU – North Eastern Hill University with an aim to visit the sophisticated Analytical Instrument Facility – SAIF. We arrived there at 10 am. We planned to see all the instruments at SAIF and to enlighten ourselves about their functions and working principle. The following instruments which we get to see there are –

- 1.Nuclear Magnetic Resonance
- 2.Electron Microscope – SEM , TEM
- 3.Graphite Furnace
- 4.Mass Spectrophotometer
- 5.DMRX – Image Analysis System
6. ICP – OES

Firstly we were taken to the lab where we were shown how a sample is prepared through various procedures.

After that we were taken to another lab where we learned the method for cutting specimens into extremely thin slices, called ultra thin sections , that can be studied and documented at different magnifications in a transmission electron microscope (TEM). This process is known as Ultramicrotomy.

Microtomes use glass , or diamond blades depending upon the specimens being sliced and the desired thickness of the sections being cut.

Field Observation

NUCLEAR MAGNETIC RESONANCES



We were guided by a professor to different instrumental rooms. There we were explained in details about the Working Principles and functions of each and every instruments in a sequential manner. At first we visited to Nuclear Magnetic Resonance room, the technical Head of NMR conducted very informative session for the students. He talked about the uses of NMR and explained as he working of the NMR. He said how nuclei with non-zero spins, when placed in a strong magnetic field process at specific orientation with respect to applied magnetic field. When the radio frequency of appropriate energy is supplied these nuclei flip to a higher energy state. He also mentioned the excited nuclei are allowed to relax back to their ground state. An electric signal is induced in a suitably placed RF coil. He concluded the session by saying about the applications of NMR, he said it is used in area of synthetic organic chemistry, inorganic chemistry, bioorganic chemistry, polymer chemistry and organo metallic chemistry. He also mentioned about the advantages of NMR ; it is used to obtain diverse information like relaxation time, connectivity through bond and through space etc. It was very informative and he made us feel free to ask questions about the programmes and NMR.

GRAPHITE FURNACE



Then we were directed by our teachers to visit a lab of Graphite Furnace (VARIO-6) . We were fascinated by the technology there. The technical head gave a brief introduction about the Graphite Furnace. He said it is a PC – controlled multi element automatic machine for sequential determination of trace and ultra trace of metals and semi-metals in samples. He even talked about the applications of Graphite Furnace , he said it is used in physical science , biology science, medical science , pollution control. The session was really motivating and inspiring to us. He even gave us space to clarify our doubts and ask questions to him.

LIQUID CHROMATOGRAPHY - MASS SPECTROMETER



Around 1 pm in the afternoon, we were all directed towards the lab where they keep Liquid Chromatography – Mass Spectrometer when we reached the lab, Sir in charge spoke about the techniques to handle the Instrument i.e., the Spectrometer, he began by giving us a brief introduction on Mass Spectrometer. He told us that the LC-MS is an analytical chemistry technique that combines the physical separation capabilities of liquid chromatography with the mass analysis capabilities of mass spectrometer. Although the coupling of chromatography with mass spectrometer was introduced in 1952 , when A.T James and A.J.P Martin were trying to develop tandem separation – mass analysis

techniques but it was only in the year 2005 when NEHU got the hold of this instrument and it was installed there. The model that we saw at NEHU was Waters ZQ-400.

Sir also told us that coupled chromatography – MS systems are popular in chemical analysis because the individual capabilities of each techniques are enhanced synergistically, while liquid chromatography separate mixtures with multiple compounds, mass Spectrometer provides spectral information that may help to identify each separated component.

When he/she began to demonstrate how the mass spectrometer works he/she told us that in a regular mass spectrometer, they initially have the material to be analyzed, but they need it to be ionized to pass through the spectrometer with enough energy. Thus the samples bombarded by electrons to ionized it.

When an ionized beam pass through a series of electric field the ions were deflected by the field through which they were passed through in such a way that the ions with the same mass to signal ratio followed the same path to the defector.

These charged and deflected ions were then incident onto a detector which are capable of distinguishing the charged particles falling on it.

Based on the mass spectrum produced by the charged ions, he/she could identify the atoms or molecules constituting the sample by comparing them with known masses or through the characteristics fragmentation pattern.

It was an amazing and thrilling experience to witness how the technology has advanced.

DMRX- Image Analysis System



The next lab we visited was of High -Resolution Optical Microscope with an **Image Analyser** .The model that we saw in NEHU was LEICA Q600 which was installed in the year 1998.The technical head explained about the working principle of the instrument . She began with a brief introduction of the instrument, that it is a high resolution universal optical microscope with true colour processing capability and analysis system Q600.This system can be used to investigate micro and macro specimen objectively to provide information regarding the microstructure, their quantity ,size, area, shape and phase.images are captured using light optical microscope ,grabbed images are analysed using image analysis software .She mentioned that the sample can be either on a glass slide or mounted on Acrylic/Bakelite mounts. Its magnification ranges from 10X to 250X and can be extended further by 2.5X & 3.2X. She concluded her lecture by mentioning about the applications of this instrument . It is used in Environmental Science, Biological Science, Material Science, Life Science, Pharmaceuticals , Semiconductors etc.

Transmission Electron Microscope



After this, we were directed toward the Transmission Electron Microscope lab where the teacher in charge explained about the TEM Images. He mentioned that TEM images are formed using electrons through ultra thin section (50-90 nm) , thin film or powder . Its magnification ranges from 50X to 1,500,000X & resolution of 0.9 nm depending upon accelerating voltage. The images are viewed over a fluorescent screen & recorded on a photographic film or a high resolution CCD camera . The model was JEM-2100. At last he mentioned some of the applications of TEM.It is widely used in Material Science, Medical Science, Semi conductors, Metallurgy, Pharmaceuticals, Drug Delivery System, Etc.

Scanning Electron Microscope



After the visit to TEM Lab, we then visited the Scanning Electron Microscope Lab . The model we saw was JSM-6360 (JEOL) .The teacher in charge gave us brief information about the instrument & its application. Scanning Electron Microscope is a versatile tool for high resolution surface imaging. The SEM uses low energy secondary electrons (SEI) or high energy back scattered electrons (BEI) from the specimen surface for image formation. While SEI images provide information on 50 to 150.3 Å thickness of the sample, BEI image reveals surface features from larger depth . The maximum size of the specimen that can be loaded is up to 10mm. He then mentioned some of the advantages of SEM over light microscope , that is , it provides greater magnification , resolution, & much larger depth of the field. At the end , he mentioned about the applications of SEM ,that is, it is used in Entomology, Fish Biology, Cell biology , Limnology , Development biology , Physical Science etc.

ICP -OES Inductively Coupled Plasma -Optical Emission Spectrometry



At last, we were taken to ICP-OES Room, which is an established and powerful technique for simultaneously analysis and qualification of trace elements in both liquid and solid samples. As mentioned by the guide teacher, this instrument is based on the core advanced technologies to solve the challenges of the most demanding laboratory applications. It is a type of emission spectroscopy that was the inductively coupled plasma to produce excited atoms and ions that emit electromagnetic radiations. During analysis the intensity of light emitted at specific wavelengths is measured and used to determine the concentration of elements of interest.

Applications : ICP can be used in quantitative analysis in the following areas such as Physical Sciences, Environmental Pollution Control Studies, Forensic, Industrial Metals, Natural Materials, Agriculture, Forestry, Animal Husbandry, Food Industry , Medical Sciences etc.

CONCLUSION

Our trip ended around 4 pm. It can be concluded that the trip was successful and we believed that our objective was achieved. We learned something new and beneficial for us. It was really helpful for the students who wish to pursue their career in the research field. We are really grateful to our teachers who guided us and provided us with such practical information about those various sophisticated machineries/instruments.



Study Tour Cum Excursion to Jabalpur and Kanha National Park, Madhya Pradesh

Tour Place: **Kanha National Park and Jabalpur, Madhya Pradesh.**

Commencement of the Trip: **24/01/2023**

Duration of the Trip: **24/01/2023 - 04/02/2023**

Semester Taken for Study Tour cum Excursion: **5th semester Student (currently 6th semester).**

Name of the students take part in the excursion:

- 1. Ms. Aidahun Pala**
- 2. Ms. Dominica Pohlong**
- 3. Ms. Eiweimanki Sumer**
- 4. Ms. Gloria B Khongwir**
- 5. Ms. Melarishisha K Lynser**
- 6. Mr. Sankiewnam Chyrmang**
- 7. Ms. Shraddha Sinha**
- 8. Mr. Steven J Syiemlieh**

Name of the Teacher Chaperone:

- 1. Dr. R.K.L. Tron (HOD)**
- 2. Dr. E. Dhar**
- 3. Mr. G.B. Ranee**

Time Scheduled of the Trip and the activity

| Srl.No | Date | Number of days | Activity | Observation | Outcome |
|---------------|-------------------|-----------------------|---|--------------------|----------------|
| 1. | 24/01/2023 | 2 | Left Shillong and proceeded with the train journey for Jabalpur. | | |
| 2. | 25/01/20 | | | | |

BRIEF REPORT

01/03/2023

| | | | | | |
|-----------|-------------------|----------|---|--|--|
| | 23 | | | | |
| 3. | 26/01/2023 | 1 | Arrival at Jabalpur. Explored the Narmada Marble Valley by river boating. | 1. The Mighty Narmada river 2. Fauna around the River like the primate Langur, Macaque etc, 3. Then witnessed the beautiful Shivling and Amethyest Crystals. | The importance of Eco-Tourism is that it does not only help in the generation of income of the state but more importantly it helps in preserving the nature and its living components. |
| 4. | 27/01/2023 | 1 | Trekking the Dumna Nature Walk , Jabalpur and interacting with the guide Sir. Jaghat. Visiting Zoological survey of India, Jabalpur and interaction with | Observed faunas are as follow: 1. Spotted Deer 2. Langurs 3. Macaque 4. Crocodile. 5. A variety of birds such as the cormorant, kingfisher, etc. | Dumna nature walk is a small area yet so diverse in fauna and flora, It is a place to visit for zoologist, naturalist, cyclist, etc. Learnt about the importance of Research in the field of life science and |

BRIEF REPORT

01/03/2023

| | | | | | |
|-----------|-------------------|----------|--|---|---|
| | | | Different scientist, staff and research scholars | | different technique of preservation of specimen such as the 1. Dry Preservation method of insects specimen such as the butterfly 2. Wet preservation of arachnids specimens such as the scorpions 3. Taxidermy_ where the outer appearance or the skin of the animals is preserved such as the spotted deer etc. |
| 5. | 28/01/2023 | 1 | Visiting 1. Rani Durgavati Sanctuary 2. Visit to Katangi Fall | 1. Observed remnants of the Singorgarh Fort of Rani Durgavati 2. It was a beautiful lanscape but unfortunately | 1. We learnt about the rich Indian culture 2. On the way to Katangi Fall, we |

BRIEF REPORT

01/03/2023

| | | | | | |
|----|------------|---|--|--|--|
| | | | 3. Vulture Sighting and Baghdari | it's not the right season to view the water fall as the water was very less. 3. We sighted a Griffon Vulture and Golden jackals | could sight Scorpions and vultures 3. We learnt about the habitat of scavengers , in which both the jackal and the vulture were scavenging on the road kills. |
| 6. | 29/01/2023 | 1 | Left for Kanha National Park. | | |
| 7. | 30/01/2023 | 1 | Morning Safari Ride on the Kanha National Park | Observed many wild animals such as the state animal of Madhya Pradesh , The Barasingha ,the spotted deer, Sambar deer, Gaur, wild boar, many birds species etc | Learnt about the history of tigers in the National Park and their behaviour, and the importance of National park in conserving the wild animals. |
| 8. | 31/01/2023 | 1 | Local Sight Seeing | Observed the busy life style of the Jabalpur. | Jabalpur is one of the beautiful city in India. |
| 9. | 01/02/2023 | 1 | Visited Madan | We observed another | We learnt how |

BRIEF REPORT

01/03/2023

| | | | | | |
|------------|-------------------|----------|-------------------------------------|---|---|
| | | | Mahal Fort | beautiful fort of Rani Durgavati | remains can become a tourist destination |
| 10. | 02/02/2023 | 1 | Board the train to Guwahati. | | |
| 11. | 03/02/2023 | 1 | Train Journey. | | |
| 12. | 04/02/2023 | 1 | Arrived at Shillong. | | |

Geotagg Photos:





BRIEF REPORT

01/03/2023



Dr. R. K. L. Tron
Head
Department of Zoology, SEC Shillong

Mr. Graham B. Ranee
Convener
Department of Zoology, SEC Shillong

REPORT ON FIELD TRIP
TO
TROUT FARM, SHILLONG,
MEGHALAYA

*Submitted To The Department Of Zoology, St. Edmund's
College, Shillong-793001*



Submitted by

Name: ROSHMITA DAS

Semester: BSc. 6th SEMESTER

Honours: ZOOLOGY

Session: 2023

College Roll No.- 20/ZOOL/308

University Roll No.- S2001524

Date: 19th MAY 2023



CERTIFICATE

This is to certify that Miss **ROSHMITA DAS** of BSc. 6th Semester of St. Edmund's College, Shillong has submitted the field report entitled "**FIELD TRIP TO TROUT FARM, SHILLONG**" and this has been accepted as a bonafide project work.

Prof. Ronald K.L. Tron

Head of Department

Department of Zoology

St. Edmund's College

Shillong-793003

ACKNOWLEDGEMENT

I would like to extend my heartiest gratitude to the teachers of the Zoology Department of St. Edmund's College, Shillong for giving me this excellent opportunity to go on a study trip to Cleve Colony, Shillong, which was valuable for my project work. I am greatly thankful to our HOD, Prof. Ronald K.L. Tron for arranging this trip. It has been a pleasure to have the guidance and company of Sir Duwaki Rangad, Sir P. Wankit Shangpliang, Sir Graham B. Rancee and Miss Mebari V.R. Dorphang on the field trip. I extend my thanks to my classmates and junior mates who were there along with me and assisted me throughout the trip and afterwards.

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Report on Field Trip to Trout Farm, Cleve Colony, Shillong, Meghalaya

Introduction

On 3rd March 2023, we the students along with our professors of the Zoology Department from St. Edmund's College, Shillong visited the Trout Farm, Shillong. We arrived there at around 11:00 a.m. We planned to visit the farm to observe the Rainbow Trout fish.

Objective

The main objective of this field trip was to broaden our knowledge about Rainbow Trout Farming and its Commercialization.

Field Observation

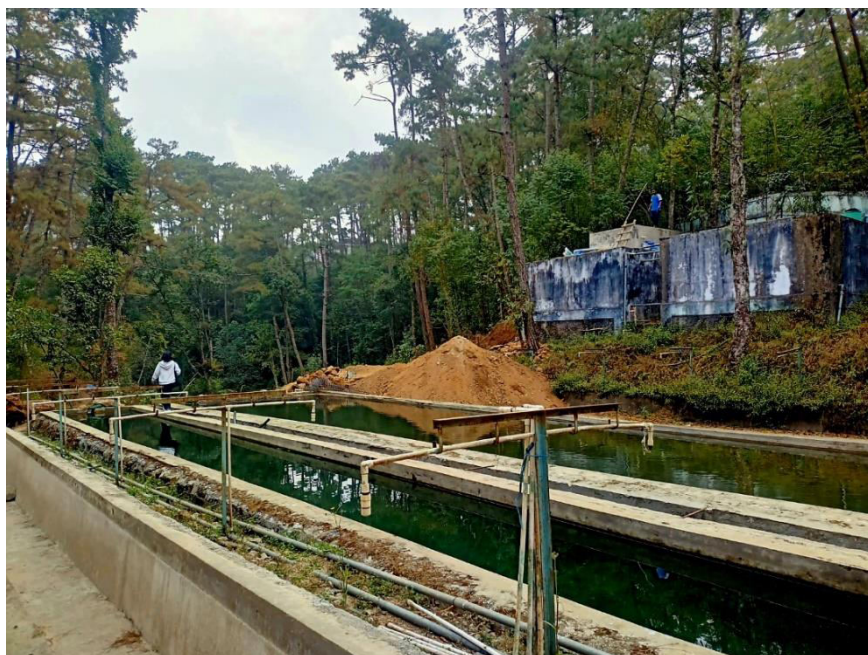
We were guided by the Fishery Officer of the Trout Farm who explained in detail the history of the Trout Farm and the process of rearing and breeding Trout.

The Trout Farm was first set up during the British era and used for recreational purposes, i.e., angling. Post-independence the farm was handed over to the Department of Fisheries, Government of Assam. Once Meghalaya obtained its statehood in 1972, the Department of Fisheries, Government of Meghalaya took possession of the farm and decided to revive it. In the year 1992, the state bought around 500-600 Rainbow Trout seeds from Arunachal Pradesh and cultured them successfully, but due to a lack of enough space and other



facilities, they were not able to propagate their population further.

Although the farm is still in the process of building, at present, they have around 2 acres of land, 7 raceways, 2 ponds, and 8-10 staff for the management of the farm. They are also planning to build one Ovahouse for rearing Trout eggs.



Outdoor Raceways



Rearing Ponds

On 15th April 2022, around 8,000 Trout seeds were bought from the West Kameng district of Arunachal Pradesh. Through careful rearing for a period of 9 to 10 months, the Trout seeds showed promising growth.

We also learned some of the characteristics of the Rainbow Trout and its nutritional benefits. Rainbow Trout (*Oncorhynchus mykiss*) belongs to the Salmonidae family. The family consists of around 15 species out of which Rainbow Trout and Brown Trout (*Salmo trutta*) are some of the best-selling fish in the market. They are freshwater organisms and are mainly found in the cold belt areas such as Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, and Sikkim. Rainbow trout have a slender, elongated body distinguished by an iridescent pink or red lateral line. They are generally silvery on their sides, with a dark blue to olive back and a white underside. Their flanks and all of their fins (including their tail) are sprinkled with dark spots. An adult Rainbow Trout can weigh up to 450g to 700g. Another important characteristic of Rainbow Trout is females mature at a later age i.e., 3 years plus while males mature at an earlier age i.e., 2 years plus. The fish is considered to boast a good amount of protein, being complete in all essential amino acids in healthy proportions. They are also an excellent source of omega-3 fatty acids, potassium, phosphorus, vitamin B6, niacin and selenium.



Rainbow Trout (*Oncorhynchus mykiss*)

Then we got to know about the rearing process of Rainbow Trout. For that two main criteria are to be considered i.e., temperature and water. Firstly, the ideal temperature for the rearing of trout fish is around 5°C to 16°C, so they breed from January to April. During summer, the temperature may rise to 18°C, at that time the water flow is increased in the ponds and the raceways. Secondly, Trout need clean, clear and transparent water. The clearer the water, the more dissolved oxygen content. Clean, continuous running water is ensured through a filtration process. The turbid or unclean water is filtered in a filtration tank consisting of 4 different chambers. The 1st chamber is filled with pebbles from where the turbid water passes to the 2nd chamber. The 2nd chamber is also filled with water pebbles ranging from large to medium to small. Then, the water passes to the 3rd chamber where the first layer is filled with sand around 1 foot and then with pebbles ranging from large to medium to small. Finally, the water then passes to the 4th chamber, where the cleaned water is stored in a tank and supplied



to the ponds and raceways through pipelines.



Filtration Chambers

The Trout seeds are usually brought to the state during the post-midnight i.e., at around 3:00 am to have the benefit of cooler journey transit. The seeds are acclimatized for 1 hour before being released into the pond. Usually, the water flow is around 100L per minute but during the fry stage, it is around 30-40L per minute depending upon the number of seeds. At present, the farm has around 100-200 Rainbow Trout fish.

We also got to know about the feeding procedure of Trout fish. The feed that is given there is a pelleted feed which is given at 10% of the fish's biomass. During the fry stage, Trout are fed 2 times a day while during the advanced fingerling stage, they are fed 3 times a day i.e., first at around 8:00 am, then 12:00 noon and then at around 4:00 pm. Even after the fingerlings reach the adult stage (table-size fish), they are fed 3 times a day because they need large protein content.

In the end, the officer gave us a brief overview of its economic growth. There is a growing demand for Rainbow Trout Fish in the local market due to its excellent nutritional advantages.

Conclusion

Our trip ended at around 1:00 pm. It can be concluded that the field trip was successful and that our objective was achieved. We understood the concept of fish farming. We got to observe the set-up of the Trout Fish farm and learn about its historical background. We also learned some of the characteristic features of Rainbow Trout, and its nutritional benefits. This farm visit thus enabled the students to enhance their knowledge about the culturing of Rainbow Trout Fish in particular. We are very grateful to our teachers who gave us this opportunity to visit the Trout fish farm.

List of Participants:-

| SL. No. | NAMES | DESIGNATION |
|---------|--------------------------|-------------|
| 1. | Steven Syiemlieh | Student |
| 2. | Gloria B. Khongwir | Student |
| 3. | Mebalari Syiemiong | Student |
| 4. | Dominica Pohlong | Student |
| 5. | Eiweimanki Sumer | Student |
| 6. | Roshmita Das | Student |
| 7. | Prasasti Sarma | Student |
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| 15. | Isha Ado | Student |
| 16. | Aidahun Pala | Student |
| 17. | Priyanka Agarwal | Student |
| 18. | Arakhmasanchi D.Sangma | Student |
| 19. | Medemnochet Longchar | Student |
| 20. | Moi Yampi | Student |
| 21. | B. Emily Jane T. Lyngdoh | Student |
| 22. | Velginia Marbaniang | Student |
| 23. | Ridashisha Ryntathiang | Student |
| 24. | Ngangom Goldy Chanu | Student |
| 25. | Iaphishisha Nengnong | Student |
| 26. | Chorten Lamu | Student |
| 27. | Wanlam Kupa | Student |
| 28. | Sahil Thakur | Student |
| 29. | Avishek Das | Student |
| 30. | Effort Dhar | Student |
| 31. | Felina Haokip | Student |
| 32. | Ame Limbu | Student |
| 33. | Ritu Gogoi | Student |
| 34. | Ishita Dey | Student |
| 35. | Tinneikim Haokip | Student |
| 36. | Niharika Saikia | Student |
| 37. | Tageopi | Student |
| 38. | Treferous Shylla | Student |
| 39. | Taru Binyo | Student |
| 40. | M.D Shoaib A.M | Student |
| 41. | Jaksram M. Sangma | Student |
| 42. | Ngursangliani | Student |

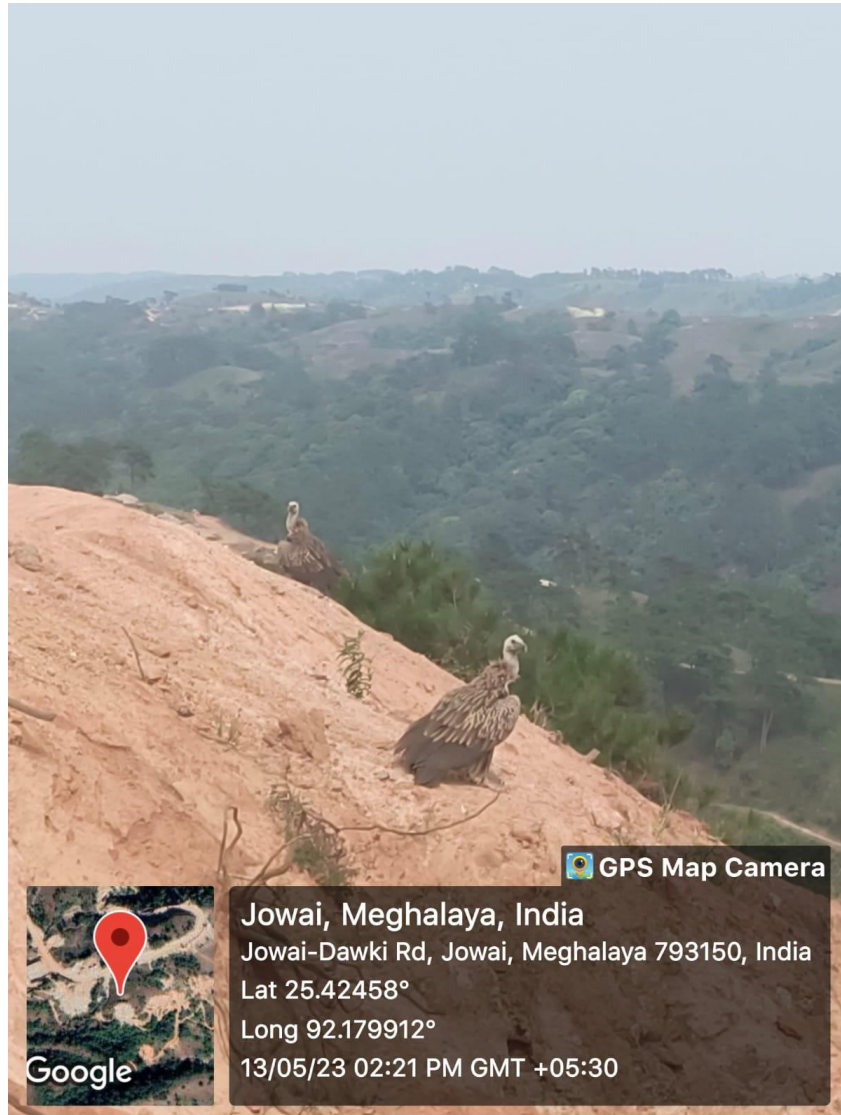
| | | |
|-----|------------------------------|-----------------|
| 43. | Pattiasa Thangkhiew | Student |
| 44. | Esther L. Hmar | Student |
| 45. | Shilpi Kumari | Student |
| 46. | Rosy T.C. Lalmangaihsangzeli | Student |
| 47. | Maria K. Lalhriatpuii | Student |
| 48. | Kangkona Roy | Student |
| 49. | Badondor Lathong | Student |
| 50. | Dr. R. K. L. Tron | HOD |
| 51. | Dr. D. Rangad | Asst. Professor |
| 52. | Dr. P. W. Shangpliang | Asst. Professor |
| 53. | Ms. M. Dorphang | Asst. Professor |
| 54. | Mr. G. B . Ranee | Asst. Professor |


FIELD REPORT ON
VULTURE SIGHTING AND A VISIT TO THE SYNTU KSIAR FISH
SANCTUARY

13TH MAY 2023



| | |
|----------------------|---------------------------|
| SUBMITTED BY: | ELIZABETH R SANATE |
| ROLL NO: | S2001534 |
| DEPARTMENT: | ZOOLOGY |
| SEMESTER: | 6TH |



 GPS Map Camera

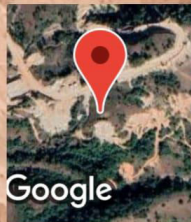
Jowai, Meghalaya, India

Jowai-Dawki Rd, Jowai, Meghalaya 793150, India

Lat 25.42458°

Long 92.179912°

13/05/23 02:21 PM GMT +05:30



Google

ACKNOWLEDGEMENT

First and foremost, praises and thanks to Almighty God for His showers of blessings throughout our trip and its successful completion.

I would also like to express my deep and sincere gratitude to our teachers for providing us invaluable support and knowledge that they have impart unto us. It was a great privilege and honor to study under their guidance.

I would also like to extend my sincere gratitude to our Principal for allowing us the opportunity to go for a field trip which I believed was beneficial for all of us.

My thanks and appreciation also go to my department mates for their and continuous support throughout our trip.

Last but not the least, to my dearest parents for their consent and underlying support throughout the making of this report.

TABLE OF CONTENTS

1. Introduction
2. Objective
3. Bus journey
4. Field observation
5. Conclusion

INTRODUCTION

This report is about a day field trip to Demthring Village in Jaintia Hills, and SyntuKsiar Fish Sanctuary in Jowai organized by the Department of Zoology, St. Edmund's College on the 13th May 2023. A total of 20 students from the 4th and 6th semester guided by 4 respected teachers were present with an aim to observe the Vultures which were believed to be migrated from the Himalayas.

OBJECTIVE

The main objective of this field trip was to observe the Vultures and study how they forage and survive in the village.

BUS JOURNEY

On 13th May 2023, we started our trip from the college campus by bus at 10:00 am where few students were picked up from their respective location which was on the way to Jaintia Hills. As we reached Puriang around 11:15 am which was 35 km away from our initial place, we stopped by to have our lunch and was able to appreciate the beauty of nature as the sunlight was peeking from the tall trees where we sat down to have our lunch. By the time we finish our lunch, buy snacks we almost lost track of time as it was an amazing place to fill our hungry stomach so we left Puriang and continue our journey to reach our destination. After an hour or two we arrived Demthring Village around 1:30pm.

FIELD OBSERVATION

VULTURES IN DEMTHRING VILLAGE

Upon reaching Demthring Village, with the help of our respected teachers along with the tourist guide First we saw a group of Vultures in the field but we weren't able to get a closer look as people were not allow to feed or go near the birds. In addition as we walk nearby these Himalayan Vultures were spotted near the main road and a little far away from the field we spotted another two of them peacefully sitting and relishing the moment. They actually do not stay in one place but spread around in search of food. We were also informed that some of these vultures tried to steal meat from local stalls. "The Wildlife Division of Jaintia Hills is doing its best to ensure that the visiting Himalayan griffon vultures are unharmed during their sojourn in Meghalaya" says the Highland Post News on 14th April 2023.

SyntuKsiar Fish Sanctuary

After Vulture Sighting, we also visited SyntuKsiar fish sanctuary in Jowai which was 11km away from Demthring Village. We arrived the place around 3:30pm. The SyntuKsiar Fish Sanctuary is a popular tourist destination in the East Jaintia Hills district of Meghalaya, India. It is known for its scenic beauty and rich diversity of fish species. Apart from its diverse fish species, the sanctuary also offers a range of activities for visitors to enjoy. These include fishing, bird-watching, trekking, and picnicking. Visitors can also dip in the cool and clear waters of the streams or relax and take in the beautiful sceneries. For this reason, I believed our teachers comprehends and took us for a site tour in order to refresh ourselves from the warm and humid weather.

CONCLUSION

Our trip ended around 5:00 pm. It can be concluded that it was a successful trip and our objective was also achieved. I personally believed that it was a day off from the hectic weeks of academics. We learnt something new at the same time enjoyed our time hence it was beneficial for all of us.

List of Participants:-

| SL. No. | NAMES | DESIGNATION |
|---------|--------------------------|-------------|
| 1. | Steven Syiemlieh | Student |
| 2. | Gloria B. Khongwir | Student |
| 3. | Mebalari Syiemiong | Student |
| 4. | Dominica Pohlong | Student |
| 5. | Eiweimanki Sumer | Student |
| 6. | Roshmita Das | Student |
| 7. | Prasasti Sarma | Student |
| 8. | Sankiewnam Chyrmang | Student |
| 9. | Melarishisha K.Lynser | Student |
| 10. | Shradha Sinha | Student |
| 11. | Samadrita Deb | Student |
| 12. | Elizabeth R Sanate | Student |
| 13. | Geetanjali Kumari rai | Student |
| 14. | Asmita Kilikdar | Student |
| 15. | Isha Ado | Student |
| 16. | Aidahun Pala | Student |
| 17. | Priyanka Agarwal | Student |
| 18. | Arakhmasanchi D.Sangma | Student |
| 19. | Medemnochet Longchar | Student |
| 20. | Moi Yampi | Student |
| 21. | B. Emily Jane T. Lyngdoh | Student |
| 22. | Velginia Marbaniang | Student |
| 23. | Ridashisha Ryntathiang | Student |
| 24. | Ngangom Goldy Chanu | Student |
| 25. | Iaphishisha Nengnong | Student |
| 26. | Chorten Lamu | Student |
| 27. | Wanlam Kupa | Student |
| 28. | Sahil Thakur | Student |
| 29. | Avishek Das | Student |
| 30. | Effort Dhar | Student |
| 31. | Felina Haokip | Student |
| 32. | Ame Limbu | Student |
| 33. | Ritu Gogoi | Student |
| 34. | Ishita Dey | Student |
| 35. | Tinneikim Haokip | Student |
| 36. | Niharika Saikia | Student |
| 37. | Tageopi | Student |
| 38. | Treferous Shylla | Student |
| 39. | Taru Binyo | Student |
| 40. | M.D Shoaib A.M | Student |
| 41. | Jaksram M. Sangma | Student |

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|-----|-----------------------|-----------------|
| 42. | Ngursangliani | Student |
| 43. | Pattiasa Thangkhiew | Student |
| 44. | Esther L.Hmar | Student |
| 45. | Shilpi Kumari | Student |
| 46. | Rosy T.C. Lalhmangaih | Student |
| 47. | Maria K. Lalhritpuii | Student |
| 48. | Kangkona Roy | Student |
| 49. | Badondor Lathong | Student |
| 50. | Dr. R. K. L. Tron | HOD |
| 51. | Dr. D. Rangad | Asst. Professor |
| 52. | Dr. P. W. Shangpliang | Asst. Professor |
| 53. | Ms. M. Dorphang | Asst. Professor |