

AQAR 2023-24

3.4.1 - The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research etc during the year 2023-24

SI. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration	Duration	Nature of the activity
1	Educational Tour to Mukutmanipur		Department of English, Krishna Chandra College (50 Participants)	2024	1 Day	Field Trip
2	Educational Tour to Nabadwip and Mayapur	Nadia, West Bengal, India	1) SUPRATIK DAS (STUDENT),2. SUBHADEV PATAR(STUDENT) 3. SUBHAJIT BAGDI(STUDENT) 4. SAMIRAN PATAR(STUDENT) 4. SAMIRAN PATAR(STUDENT) 5. SUSMITA DUTTA(STUDENT) 6. KABERI ADHIKARI (STUDENT)7. DOLON CHATTERJEE(STUDENT) 8. RATNA CHOWDHURY(STUDENT) 9. RITU MUKHARJEE(STUDENT) 10. MADHUMITA GARAIN(STUDENT) 11. PRATAP BAGDI (STUDENT)12. SOMA ROY(STUDENT) 13. PINKI GHOSH(STUDENT) 14. TAPASI DAS(STUDENT) 15. SONA GHOSH(STUDENT) 16. SANJOY BAGDI(STUDENT)	2024	2 Days	visit Chaitanya Mahaprabhu's birthplace and various old temples

			17.ARPITA			
			MAHATA(STUDENT)			
3	Educational Tour to by Department of Zoology	STK Apiculture, Sundipur, Berhampore, Murshidabad, WEST BENGAL	 Alisha Tabasum Anima Ghosh Chandana Mondal Chandranath Thakur Imdadul Haque Madhumita Mondal Md. Kolimuddin Nandita Bagdi Prakash Mondal Sneha Garai Suprakash Sadhu Susmita Chakraborty Ambar Hazra Sk Afraj Sudip Mondal Adwaita Mondal Adwaita Mondal Animesh Ghosh Debaleena De Deep Sow Mondal Moumita Saha Nishita Gon Shuvra Rajak Su Shuvra Rajak Souvik Dutta Souvik Ghosh 	2024	2 days	Field Trip
4	Educational Tour to by Department of Zoology		1.Banasri Das, 2. Mohar Nandi, 3. Nandita Garai, 4. Soma Roy	2024	1 Day	Field Trip



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Principal Krishna Chandra College Hetampur,Birbhum

Report of Educational Tour for the session 2023-2024Department of EnglishKrishna Chandra CollegeHetampur, Birbhum



Travelling is a part of education. An educational tour is a part of travelling. It is a part and parcel of the life of students as it gives them an excellent opportunity to learna lot of unknown things outside the classroom setting. It provides a chance for them to experience different cultures, explore new places, and gain practical knowledge that they can apply in real-life situations. To provide such an enriching experience to the students, a one day educational tour was organised by the Department of English, Krishna Chandra College, Hetampur, Birbhum on 21st December,2023 to visit the Mukutmanipur Dam in West Bengal. It is a dam in Khatra subdivision of Bankura district in the state of West Bengal, India. The Kangsabati River, also known as the Kasai and Kumari, originates from the Chota

Nagpur Plateau in West Bengal. It flows through the districts of Purulia, Bankura, and Paschim Medinipur before draining into the Bay of Bengal.



The Mukutmanipur Dam, built along this river, is the second longest earthen dam in India, measuring 11.27 km, surpassed only by the Sri Ram Sagar Project (SRSP) in Telangana. The dam has a gross storage capacity of 1.04 cubic kilometers (36.73 tmcft) and is the only dam in West Bengal designated as 'Dam of National Importance' by the Central Water Commission of the Government of India.

The dam is essential for irrigation, supporting a total cultivable area of 340,752 hectares during the Kharif season and 60,704 hectares during the Rabi season. Mukutmanipur serves as a significant tourism hub in West Bengal, attracting

visitors with its scenic landscapes, recreational activities on the reservoir, and natural beauty. The road over the dam is 11 kilometres (6.8 mi) long. At the midpoint is a small hill, Pareshnath Hill, where several Jain and Hindu deity statues are displayed in the open air. These artifacts were uncovered during the excavation for the dam. Another Jain statue lies at the base of Pareshnath Hill.



The main purpose of this tour is to broaden the students' horizons and enhance their learning experience. Fifty two students of the department of English participated in this tour accompanied by all the faculty members of department of English namely Dr. Arindam Ghosh, Mr. Mahananda Barman and Mr. Nayem Aktar. Dr. Goutam Chatterjee, Principal of the college permitted the tour and wished all the participants of the tour 'best and safe journey'. In the previous day of the tour, Students were instructed to gather at Hetampur bus Stand at about 6:00 am. Expectedly all the students gathered at the specified spot on time. We started our journey to the Mukutmanipur Dam at 6:10 am with a Volvo bus. In the meantime, breakfast for all was given on time. It was a journey of 142 km from our college to the Mukutmanipur Dam. After completing a bus journey of almost four and half an hour finally we reached at the spot at about 11:50 am. After completing the official and local procedures our bus entered inside the area of the spot through the main gate. The students were so excited at that time. The officials and local people of the spot warmly welcomed all of us and proposed to select a spot for cooking. First of all tea and snacks were served to the students. We took a group

picture at the beginning. After that we started to visit different parts of the spot together along with all the faculty members.



Mukutmanipur dam is one of the most exciting tourist destination in West Bengal, where we can enjoy boating ride, vast expanse of azure water surrounded by green forests and hills, Wildlife Adventures and a safe natural retreat. It is also a popular picnic spot and a place for Pilgrimage.It is considered as the second largest dam in India. Far away from crowd and commercialization, a part of Mukutmanipur still lives in the aroma of tribal culture and offers spectacular sights to the tourists. It is also considered to be a dream destination for photography. To be precise, the 'Queen of Bankura' was offering us a perfect holiday time to break the monotony of our hectic schedule. It was a dream destination for us as most of our students like photography. We could not resist ourself from capturing marvelous scenery of the area.

We enjoyed a lot at Kangsabati Dam, the second largest earthen dam in India for its vast water body with the enchanting nature. We have experienced the Sun casting golden rays down upon the water and turning the color of it into fire red.When the Sun came half into the water, students have experienced a vision beyond their imagination. Thus we have felt the divine beauty of Sunset and touch the solitude of the golden hour.



Some of the students visited Pareshnath Shiv Mandir, open temple of Mahadev as well as a holy place for local people. There was a story regarding this temple learnt from the tour guide. During the construction of the dam, the idol was found by digging the Earth and it is considered to be an evidence of Jain culture. There are many stone idols and people strongly believe that some of the idols were Jain deities. Many people come here to celebrate 'Maha Shivratri' festival. Students enjoyed a moment for a lifetime while the clouds glowed with orange hue and tweeting birds were flying the nest across the sky.

Students have also visited the Bonpukuria Deer Park, a perfect place for family outing as well. We have felt the nature murmuring there when the deers have come to welcome us with the astonished eye for sure. Towards Bonpukuria, there was a road where the trees made an arch like structure covering the road.We have experienced a divine scene while strange green sun-rays came through the canopy of branches and made a majestic painting of light and shadow on the road.



Actually it was a spot full of natural beauty, which was a unique experience. We were able to observe and learn about the flora and fauna of the area. The spot area was home to various species of animals and plants, especially the birds and we had the opportunity to see them very close from us. The tour guide provided us with valuable information about different stories about the Mukutmanipur and how it was closely connected to the hindu mythology. We also learned here about the threats that the ecosystem was facing and the steps being taken to protect it.



We visited the different parts of the dam and its surroundings, and observed different kinds of small and big trees. We saw different kinds of birds and enjoyed songs of the different birds. The dam and its surroundings was an excellent opportunity for students to learn about the importance of preserving the environment and the impact of human activities on the ecosystem. The dam visit was relevant to the tour's theme of promoting environmental awareness and encouraging students to take action to protect the environment. This tour also promoted the students to think about our Indian mythologies and history which are connected to the Mukutmanipur to increase the moral and historical sense of the students.



After visiting different parts of the Mukutmanipur Dam, all the students along with the faculty members took their lunch on time. Then students passed sometime leisurely as they became tired. Some of them talked among them. Most of them went to visit other remaining parts of the Dam. When all the students came back after visiting the remaining parts of the dam, we started our preparation to come back from the tour spot. After counting the students finally we started our bus at about 4:30 pm and arrived at Hetampur bus Stand at about 8:45 pm . All the guardians and parents were already present at Hetampur bus Stand to receive their daughters and sons. The faculty members handed over the students to their guardians. After arriving their home all the students sent their message of safe arrival at home through WhatsApp. Thus we successfully completed the educational tour of the Department of English for the session 2023 - 2024.



An Educational Tour Report

One day Educational Tour was organized in Nabadwip and Mayapur, Nadia by Department of Sanskrit, Krishna Chandra College, Hetampur, Birbhum on 6th February 2024. The tour comprised students of B.A Sem- VI, IV & II accompanied by faculty member from Deptt. of Sanskrit. Seventeen (17) students from Sanskrit Department actively participated in this tour. The students were directed to gather at Suri bus stand, Chinpai, Dubrajpur and Hetampur bus stand. Principal of the college Dr. Goutam Chatterjee wished all the students best and safe journey.



We started our journey at 5:30 am with *Mahaprabhu Bus Service* and reached at 12:30 pm at the location Mayapur. Then our students went to Nabadwip and saw the Chaitanya Mahaprabhu's birthplace and various old temples very closely. We saw the Sanskrit Mahavidyalaya and talked with their faculty members for information.



THE UNIVERSITY OF BURDWAN

A project report on visiting apiculture farm



As per the requirement of our syllabus, we the class of first year B.Sc Zoology of Krishna Chandra college, on the 17 th of January 2024, headed by our teacher Mr. Akshay Acharya and other stuffs , had gone on a educational visit to the "STK Apiculture farm " located at berhampur, Murshidabad, as seen on the map below:



Amidst the buzz of excitement, We boarded the comfortable buses at SURI around 8 AM.We arrived at our destination around 11 am.next our farm visit started after a small break. The visit details are as follows:

On reaching the Apiculture farm we were welcomed and a worker cum guide was arranged to guide us the Apiculture process.

We were first introduced about the *Apis indica* species ,their habit and their various features.



Then we learn about the various beekeeping instruments, beekeeping process and honey extraction process in details.Bees colony,bee products like honey, bee wax, their behaviour these things especially impressed our mind.



- Apis indica

The main steps in beekeeping are as follows-

Hive setup,Bee species selection,Queen establishment,Colony development,Hive expansion,Pollination services ,Seasonal hive management,Honey flow period ,Harvesting honey,wax processing ,Propolis collection,Bee health monitoring ,Swarm prevention,Winter preparation etc. to make a successful Apiculture this steps are necessary.

Below is some information along with pictures of all the equipment required for beekeeping.

BEEKEEPING EQUIPMENTS

• SMOKERS: A beekeeper uses a smoker to produce cool smoke to calm the bees. The smoker consists of a fuel box containing smouldering fuel (for example dried cow dung or cardboard) with a bellows attached. The beekeeper puffs a little smoke near the entrance of the hive before it is opened, and gently smokes the bees to move them from one part of the hive to another.



[Smoker]

• <u>VEILS</u>:Protective veils designed to allow clear visibility while preventing bees from coming into direct contact with participants' faces.



[Veils]

 <u>BEE HIVES</u>:Langstroth hives, commonly used in modern beekeeping, consisting of boxes (supers) containing frames for honey storage and brood development.



[Bee hives]

Hive Frames:**

- Removable frames within hives where bees build comb, store honey, and raise brood.

- Participants may handle frames during inspections and honey extraction.



<u>UNCAPPING TOOLS:-Knives or combs for removing the wax cappings from</u>
 <u>honeycomb before extraction</u>



• <u>Bee brush:-- Soft-bristled brushes used to gently remove bees from frames and hive components.</u>



• HONEY EXTRACTORS:-



These carefully selected tools and equipment ensure a safe and informative hands-on experience for us,, allowing to actively engage with the beekeeping process while minimizing risks associated with handling bees.

After that honey extraction workshop is given Beekeepers start by calming the bees with a smoker. Then, they take out honeycomb frames from the hive. Using a hot knife or uncapping fork, they unseal the honey. Next, these frames go into a honey extractor, a spinning device that extracts honey without harming the comb. After extraction, the honey undergoes filtration to remove impurities before storage or bottling, ensuring a clean final product. By detailing each step of the honey extraction process, we gain a comprehensive understanding of the journey from hive to bottle. This hands-on experience fosters a deeper connection to the beekeeping process and the appreciation of the sweet reward – freshly harvested honey. **In this excursion the most fascinating thing that astronising us is the behaviour changes in bees.In Apiculture their Foraging patterns get changed.In the wild, bees forage for nectar and pollen from a variety of flowering plants, often over large distances.In Apiculture they focus on specific nectar sources or agricultural crops,in this their Foraging patterns get altered.In apiary the bees usually practice flying around the hive to know their way around,and they get back to their own hive after collecting necter.And other different behaviour changes are noticed in Apiculture. • At last our question and answers season begins. The beekeeper answers our inquisitive minds questions through his experience. Which is follows

Q)What action they take if the bees have trouble with their food?

Ans:They give them sugar juice.

Q) what to do if any harmful organisms attacks the honey bees?

Ans:-They apply drugs to kill that harmful organisms.

Q)) Where do they get their food from in this Apiary?

Ans:-They gather their food from mustard, sesame, cumin, litchi etc flowers.

Conclusion:

Finally we boarded the bus and back to our own home with lots of knowledge and memories.Knowing about the economic importance of bees and their impact on the environment has opened up a vast field of knowledge.This educational excursion to STK Apiculture farm,sundipur, berhampur, murshidabad offers a unique opportunity for us to deepen our understanding of apiculture.We would like to thank our teacher Mr.Akshay Acharya, and our Departments all teaching and Non teaching staffs for their support and guidance.All in all thanks to our zoology department and college for organizing such an educational excursion.It was a great learning experience. This experience will pave the way for us to pursue business side like beekeeping in future.



DEPARTMENT OF ZOOLOGY KRISHNA CHANDRA COLLEGE ESTD: 1897 (Govt. Sponsored) HETAMPUR, BIRBHUM PIN-731124 Contact No. 9434015200

Ref No:

Date: 19/01/2024

NOTICE FOR EXCURSION

This is to notify that the Department of Zoology has arranged an Educational Tour which is compulsory for multidisciplinary course (ZOOL 1031, INTRODUCTION TO ANIMALIA) of SEM-I students to Ballavpur Wildlife Sanctuary, Bolpur, WEST BENGAL on 30th January, 2024. This Excursion will be supervised by Mrs. Purnapama Ghosh and Mr. Sanjay Kumar Chakravortty. For further information, please contact Zoology Department.

29/01/2024

(For) Coordinator Assistant Professor Department of Zoology Krishna Chandra College

Dr. Goutam Chatterjee Principal Krishna Chandra College





Ref No:

Date: 19/01/2024

List of students of the Department of Zoology of Krishna Chandra College, who are participating in one day tour to Ballavpur Wildlife Sanctuary, Bolpur, WEST BENGAL on 30th January 2024.

This tour is guided by Mrs. Purnapama Ghosh and Mr. Sanjay Kumar Chakraborty.

LIST OF THE STUDENTS SEM- I (Multidisciplinary Course)

NO	NAME	Major Subject	AGE	GENDER	CONTACT NO
1	Banashri Das	English	19	Female	8350000864
2	Mohar Nandi	Political Science	18	Female	7810973952
3	Nandita Garain	Political Science	19	Female	9564816667
5	Soma Rov	Sanskrit	18	Female	7865853346

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Dr. Salma Khatun Coordinator Assistant Professor Department of Zoology Krishna Chandra College



Dr. Goutam Chatterjee Principal Krishna Chandra College



WHAT IS EXCURSION?

Excursion is a trip guided by the teachers to understand several subject matters included within the syllabus. The purpose of the trip is usually observation for education, non-experimental research or to provide students with experiences outside their everyday activities, such as going camping with teachers and their classmates. The aim of this research is to observe the subject in its natural state and possibly collect samples. The only way to find out how any organism survives, reproduces and interacts with other organisms is to study it in its natural habitat. These make ecology practical science. There are three main approaches to study of ecology. The simplest method is to observe and record the organism in its natural environment. This is sometimes described as observation 'in the field' or fieldwork.

SIGNIFICANCE AND IMPORTANCE OF EXCURSION:

The first and foremost objective of a field study is to specifically analyze the various topics of interest regarding (i.e., behaviour, autecology, flora and fauna diversity etc.) and to perform detailed observations and drawing out conclusions. Not to mention that ecology can't be studied theoretically but also it needs a practical way of approach by which we can frame the exact issue of our interest. This makes studying ecology in a broader sense. Compared to experiment performed in the laboratory, studying on-field elements and observing them leads to more accurate results since we get a visual outlook on them. Its important can be mentioned in the following points:- 1. Understand basic ecological principles as applied to global and local ecosystems. 2. Be able to apply an understanding of ecological principles to issues of environmental concern. 3. Have experienced and used a variety of 'modern experimental' and 'traditional' field studies techniques during practical investigations of a range of natural and managed ecosystems. 4. To study the biodiversity, position of organisms within an ecosystem and the interrelationships among themselves. 5. Be familiar with aspects of preservation and management of natural and semi natural habitants of conservation importance.

EXCURSION AT THE BIODIVERSITY RICH AREA:

Biodiversity is the variation of life forms within a given ecosystem, biome, or for the entire earth. Biodiversity is often used as a measure of the health of the biological system. The biodiversity found on earth today consist of many millions of distinct biologically species which is the product of nearly 3.5 billion years of evolution.

Biodiversity also supports a number of natural ecosystem process & service. Some ecosystem services that benefit society are air quality, climate (both global CO_2 sequestration & local), water purification pollination, & prevention of erosion.

The economic value of the reservoir of genetic traits present in wild varieties & traditionally grown land races is extremely important in improving crop performance. Important crops, such as the potato & coffee, are often derived from only a few genetic strains. When rice grassy stunt virus struck rice field from Indonesia to India in 1970s 6273 varieties were tested resistance. One was found to be resistant, an Indian variety, known to science only since 1966. This variety formed a hybrid with other varieties & is now widely grown.

A wide range of industrial materials are derived directly from biological resource. This includes building materials, fibers, dyes, rescrubbed & oil. The degree to which biodiversity support business varies between regions & between economic sectors, however the importance of biodiversity to issues of resource security (water quantity & quality, timber, paper & fiber, food & medicinal resource, etc.) are increasingly recognized as universal. As a result, the loss of biodiversity is increasingly recognized as a significant risk factor in business development & a threat to long term economic sustainability. A member of case studies recently compiled by the World Resources Institute demonstrated some of these risks as indefinite by specific industries.

DESCRIPTION OF THE VISIT

An excursion is an essential part of the syllabus. Therefore, an educational tour was organized at Ballavpur wildlife santuary,bolpur,birbhum, West Bengal.

Duration of Excursion: 30th January, 2024

Number of students participated: Four

Accompanying Teachers: Mrs Purnapama Ghosh, Mr. Sanjay Kr. Chakraborty

We have observed and identify different animals and plants present in this wildlife sanctuary prevailing in birbhum, West Bengal. We observed the animals of this area.



Participants visited to the Sanctuary with teachers



ABOUT THE BALLAVPUR WILD LIFE SANCTUARY:

The sanctuary is named after the place Ballavpur. In 1977, the area of 2021 km was declared as wildlife sanctuary. The sanctuary has natural Sal forest but in 1954-1955

Accacia, Sisso, Cashew nut and other trees are planted to green the barren land. Deer park established in 40 ha area where Black buck and spotted deer but only the spotted deer survived. This sanctuary has three water bodies which attracts large number of winter migratory birds. Commonly found animals are wolf, jackel, fox, common langur, jungle cat, civet etc.



History of Ballavpur Wildlife Santuary

Physical Features:

This arid region is apart of western plateau region of West Bengal. Its physical features can be described as an undulating plateau modified in to somewhat plain feature. Gully soil erosion is prevalent.

Soil

Hard, rocky, sandy red laterite soil made up of gravel. This soil supports little vegetation as water holding capacity is low.

Humidity:

Maximum 80% and minimum 55%.

Temperature:

During summer the temperature reaches up to 44.0c and 32.0C minimum and it is rather cold during winter, at that time the temperature remains in between the 6^{0C} to 19^{0C}

Rain fall:

Monsoon rain comes to Santiniketan in late summer months. The maximum amount of rain fall is in the month of June & July. In these two months the amount of rain fall is approximately 169.8cm & 298.7cm respectively. But the average amount of rainfall in this region is 137cm per year. The rain fall has an effect on the different vegetation along with breeding activities

OBSERVATION AT BALLAVPUR WILDLIFE SANCTUARY:

The flora and fauna in Ballavpur Wild Sanctuary are listed below:

Habit	Common name	Scientific name
Tree	Shal	Shorea robusta
	Sonajhuri	Acacia auriculoformis
	Bandar lathi	Cassia fistula
	Minjiri	Cassia siamea
	kaju	Anacardium occidentale
	Sisoo	Dalbergia sissoo
	Amloki	Emblica officinalis
	Haritaki	Terminalia Chebula
	Bahera	Terminalia balerica
	Mohua	Madhuka longifolia
	Jam	Syzygium cumini
	Aam	Mangifera indica
	Tentul	Tamarrindus indica
	Rain tree	Samanea saman
	Pea-sal	Pterocarpus marsupium
	Piyal	Bachnania lenzem
	Palash	Butea monosperma
	Bot	Ficus benghalensis
	Sirish	Albizzia lebbek
	Arjun	Terminalia arjuna
	Gamar	Gmelina arborea
	Simul	Bombax ceiba
	Segun	Tectona grandis

	Neem	Azadirachta indica
	Mahaneem	Ailanthus Excels
	Kend	Diospyros melanoxylon
	Jarul	Lagerstroemia speciosa
	Lohakut	Xylia dolabriformis
Algae	Algae	Div chlorophyta
	Type-1	Daldinia sp.
Fungi	Type-2	Polyporus sp.
	Type-3	Schizophyllum sp.
	Type-4	Member of polyporaceae
	Type-5	Xylaria sp.
Aves	Bee eater	Merops sp
	Type-1	Cuculiforms
	Sparrow	Passer sp.
	crow	Corvus sp.
Mammalia	Deer	Axis axis



Spotted Deer



Public awareness board at Ballavpur Wildlife Sanctuary



Public awareness board at Ballavpur wildlife Sanctuary



Lake of Ballavpur wildlife sanctuary



Spotted Dear



Forest of Sonajhuri inside the Ballavpur wildlife sanctuary

CONCLUSION

A comprehensive field study, particularly in forest area provides us an opportunity to observe the overall picture of the biota of the given ecosystem in their most natural habitat. The morphology, habitat preferences, territory, call and other related events of organisms, whatever we study in our text books and within a confined classroom cannot always provide us a perfect picture required.