

ONE DAY EDUCATIONAL TOUR

AT

**TAPURHAT FOREST,  
COOCH BEHAR**

**(05/07/2023)**

**DEPARTMENT OF BOTANY  
ACHARYA BROJENDRA NATH SEAL COLLEGE  
COOCH BEHAR 736 101, WEST BENGAL**

**REPORT ON EDUCATIONAL TOUR AT TAPURHAT FOREST ON  
05/07/2023**

Department of Botany, A.B.N Seal College, Cooch Behar, organized a One-day field trip to Tapurhat Forest, Cooch Behar for the Departmental students on 5<sup>th</sup> of July, 2023. Students were accompanied by teaching staffs including- Dr. Aninda Mandal and Sri Ajoy Das respectively. A total of 16 students from 2<sup>nd</sup> Semester (Honours) were took part in the field visit.

The main objective of the field study was to ensure study of different plant specimens, including bryophytes, pteridophytes and gymnosperms and to learn about their biodiversity, natural habitat of each taxonomic group and collection of the specimens, among others by the students.

Tapurhat Forest is about 15.8 km from Cooch Behar town, and is a village area consisting of small forest area, rich in flora and fauna. The students and staffs gathered in college campus at 8:15 AM. Five to Six autos were arranged for the visit while journey started at 8:45 AM and reached the spot by 9:25 AM. Students carried polythene bags, newspapers, forceps, scissors etc. for the collection of specimens for their herbarium preparation.

After reaching the forest, we walked around the forest area. During the exploration, a vast diversity of flora was observed. The students collected different plant specimens of pteridophytes and bryophytes. Some Coprophilous fungi were also observed and collected by the group. During the excursion, the diversity of plants, with reference to their habitat; morphology; economical and medicinal uses was explained by the teachers. After exploring for about 4 hours, everyone had their lunch and headed towards respective autos and return journey began. Everyone reached Cooch Behar town by 3:30 PM. On reaching there, teachers directed students to disperse for the day and head back to their respective homes.

Report of the Field study was prepared by the participating students and submitted during practical examination.

## MOVEMENT ORDER



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GOVERNMENT OF WEST BENGAL  
OFFICE OF THE PRINCIPAL  
ACHARYA B. N. SEAL COLLEGE  
COOCH BEHAR, WEST BENGAL 736101, INDIA

Memo No.

Date: 03/07/2023

### MOVEMENT ORDER

This is to state that a group of 16 UG CBCS 2<sup>nd</sup> Semester Botany (Hons.) students along with the escorting teachers of Department of Botany of this College whose details are given below will remain engaged in an excursion / field study in Tapurhat Forest, Cooch Behar on 05.07.2023 (Wednesday) from 10:00 AM to 6:00 PM.

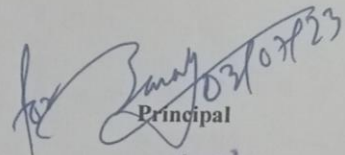
The excursion / field study will be carried out w.r.t. the practical and theoretical syllabus of CC3 (Bryology, Palaeobotany and Palynology) and CC4 (Pteridology and Gymnosperms) for the UG CBCS 2<sup>nd</sup> Semester (Hons.) courses of the affiliating University.

#### LIST OF THE ESCORTING TEACHERS

1. Dr. ANINDA MANDAL, Assistant Professor
2. Sri AJAY DAS, Assistant Professor

#### LIST OF STUDENTS

Sl. No.	Name	Roll No.	Age
1	ANANTA PAUL	22BSCH-BOTN-F-013	18
2	ANUSHKA DEY	22BSCH-BOTN-F-37	18
3	DIPANJALI ROY	22BSCH-BOTN-F-014	18
4	GITASREE SHIL	22BSCH-BOTN-F-053	18
5	INDRANI BISWAS	22BSCH-BOTN-F-027	18
6	JAMIMA AHAMED	22BSCH-BOTN-F-025	18
7	NEHA RAVA	22BSCH-BOTN-F-029	18
8	RIM PANDIT	22BSCH-BOTN-F-049	18
9	SAMPA SAHA	22BSCH-BOTN-F-046	18
10	TANIYA DUTTA	22BSCH-BOTN-F-052	18
11	MILAN ROY	22BSCH-BOTN-M-018	18
12	ROCKY BARMAN	22BSCH-BOTN-M-045	18
13	SOURISH PANDIT	22BSCH-BOTN-M-019	19
14	SUBHAM DAS	22BSCH-BOTN-M-06	18
15	SURAJIT ROY	22BSCH-BOTN-M-09	18
16	VICTOR BHOWMIK	22BSCH-BOTN-M-023	18

  
Principal  
A B N Seal College  
Cooch Behar

**PHOTO GALLERY**



**Plant specimen collection**



**Participating students along with faculty members**

## SYLLABUS

### HBOT-CCP-203-(15)

#### **Bryophyta-**

1. Study of the gametophytic and sporophytic structures of the following genera: *Marchantia*, *Anthoceros* and *Funaria*.
2. Spot identification of genera that are included in the theoretical syllabus.

#### **Palaeobotany and Palynology -**

1. Study (including mode of preservation) of the following: *Lepidodendron* (stem in T. S.), *Calamites* (stem in T. S.), *Lepidodendron* (seed, specimen), *Glossopteris* (leaf, specimen), *Lyginopteris* (stem in T. S.), *Vertebraria* (root, specimen).

### 3. Field study

### **Core Course - IV(Practical) (Marks 15)**

#### **HBOT-CCP-204-(15)**

#### **Pteridology-**

Study of morphology, anatomy and reproductive structures in *Lycopodium*, *Selaginella*, *Equisetum*, *Marsilea*, and *Pteris*.

#### **Gymnosperms-**

Study of morphology, anatomy and reproductive structures in *Cycas*, *Pinus*, and *Gnetum*.

### Field study

**EDUCATIONAL TOUR AT  
SUNDARBAN NATIONAL PARK  
(19/11/2023 TO 23/11/2023)**

**DEPARTMENT OF BOTANY  
ACHARYA BROJENDRA NATH SEAL COLLEGE  
COOCH BEHAR 736 101, WEST BENGAL**

**REPORT ON EDUCATIONAL EXCURSION / FIELD TRAINING AT  
SUNDARBAN NATIONAL PARK DURING 19/11/2023 to 23/11/2023**

An 'Educational Excursion / Field Training' was organised by the Department of Botany, Acharya Brojendra Nath Seal College, Cooch Behar during 19/11/2023 to 23/11/2023 to Sundarban National Park, South-24-Parganas, West Bengal. A total of 28 students of 3<sup>rd</sup> and 5<sup>th</sup> Semester were part of this educational tour. Students were accompanied by departmental teachers including- Dr. Aninda Mandal (HoD) and Dr. Bapi Ghosh along with non-teaching staff including Sri. Pranay Barua and Sri. Indrajit Pal respectively.

The objective of this tour was to- familiarise students with biodiversity, ecology of the National Park; give exposure to natural habitat and characters of the mangrove plant species.

'Sundarban National Park' is more than 800 km away from Cooch Behar city, and about 100 km away from capital city, Kolkata. The Sundarbans National Park is a UNESCO World Heritage Site located in the state of West Bengal, India. It is renowned for its unique ecosystem, being the largest mangrove forest in the world. The Sundarbans are situated in the delta region of the Ganges, Brahmaputra, and Meghna rivers, and they cover an area of about 10,000 square kilometers, of which approximately 4,000 square kilometers are within India and the rest in Bangladesh. The Sundarbans are home to a diverse range of flora and fauna, including the Bengal tiger, saltwater crocodile, various species of birds, reptiles, and mammals. The mangrove forests serve as a vital habitat for many endangered species, making it an important area for conservation efforts.

On 19/11/2023 morning, students gathered at the College campus at 10:00 AM as directed by teachers and departed towards NCB Railway Station at 11:15 AM and reached the destination on next day morning. The itinerary of the entire journey is attached herewith.

During the exploration, Students of 3<sup>rd</sup> Semester were provided with detailed insight on the ecology and biodiversity of the National Park while Students of 5<sup>th</sup> Semester explored the ethnobotanical plants of Sundarbans. Students quite enjoyed the beauty of Sundarbans National Park during the exploration. On 23/11/2023 we returned to the station safely with full of memory.

### ITINERARY OF TOUR

<b>Date &amp; Time (Departure)</b>	<b>Origin</b>	<b>Date &amp; Time (Arrival)</b>	<b>Destination</b>	<b>Distance (Km)</b>
19/11/23 (11.30 am)	A. B. N. Seal College	19/11/23 (12.10 pm)	NCB Railway Station	06
19/11/23 (12.45 pm)	NCB Railway Station	20/11/23 (4.10 am)	SDH Railway Station	704
20/11/23 (5.45 am)	SDH Railway Station	20/11/23 (6.57 am)	Canning (CG) Railway Station	45
20/11/23 (8.00 am)	Canning	20/11/23 (8.45 am)	Sonakhali Jetighat	17
20/11/23 (10.00 am)	Sonakhali Jetighat	20/11/23 (3.00 pm)	Pakhiralay (Night Stay)	42
21/11/23 (8.00 am)	Pakhiralay	21/11/23 (8.20 am)	Sajnekhali	01
21/11/23 (9.00 am)	Sajnekhali	21/11/23 (10.15 am)	Sudhanyakhali	06
21/11/23 (11.30 am)	Sudhanyakhali	21/11/23 (3.00 pm)	Do Baki	23
21/11/23 (4.00 pm)	Do Baki	21/11/23 (6.00 pm)	Pakhiralay (Night Stay)	26
22/11/23 (8.00 am)	Pakhiralay	22/11/23 (9.20 am)	Dayapur Forest	12
22/11/23 (11.00 am)	Dayapur Forest	22/11/23 (1.10 pm)	Gosaba	06
22/11/23 (2.00 pm)	Gosaba	22/11/23 (4.10 pm)	Sonakhali Jetighat	12
22/11/23 (4.30 pm)	Sonakhali Jetighat	22/11/23 (5.20 pm)	Canning	17
22/11/23 (7.20 pm)	Canning	22/11/23 (8.35 pm)	SDH Railway Station	45
22/11/23 (11.20 pm)	SDH Railway Station	23/11/23 (11.38 am)	NCB Railway Station	704
23/11/23 (12.10 pm)	NCB Railway Station	23/11/23 (12.50 pm)	A. B. N. Seal College	06



## GOVERNMENT ORDER OF THE EXCURSION

Government of West Bengal  
Education Directorate  
Bikash Bhavan, Salt Lake, Kolkata – 700 091

Memo No. 2202-A

Date 16.10.2023

Dr. Aninda Mandal, Assistant Professor, Dr. Binod Chandra Sharma, Associate Professor, Dr. Bapi Ghosh, Assistant Professor and Smt. Mousikha Lala, Assistant Professor are permitted to undertake an educational excursion / field training in Botany of 33 (Thirty Three) students of UG Sem-III & V of A. B. N. Seal College and visit Sundarbans National Park and its adjoining areas of Botanical interest. The party will leave Headquarters on 19.11.2023 and will return to Headquarters on 23.11.2023.

As the prolonged half, exceeding 10 days for the excursion / field training in question, will be / was necessary in the interest of Public Service, the aforesaid staff are exempted from the operation of Rule 73 of the W.B.S.R. Part – II and are permitted to draw travelling allowances as admissible under the Rules and daily allowance for a continuous half of more than 10 days at full rates. The aforesaid staff accompanying the excursion party will draw Travelling Allowances and other allowances as admissible under the Rules.

Travelling Allowances and Daily Allowances @ Rs. (as admissible) each in favour of Dr. Aninda Mandal, Dr. Binod Chandra Sharma, Dr. Bapi Ghosh and Smt. Mousikha Lala, be drawn as per Rules subject to future adjustment.

The expenditure will be met from the Current Year's allotment under the Head 'TRAVELLING ALLOWANCES' placed at the disposal of the Principal / Officer-in-Charge, A.B.N. Seal College.

The Accountant General (A&E), West Bengal and the Treasury Officer, Cooch Behar-I, has been informed.

Sd/- Dr. M. Manna  
Additional Director of Public Instruction (Admn.),  
West Bengal

Memo No. 2202 /1(3)-A

Date 16.10.2023

Copy forwarded for information and necessary action to:

1. The Accountant General (A&E), West Bengal, Treasury Buildings, Kolkata – 700 001.
2. The Treasury Officer, Cooch Behar, P.O. & Dist. Cooch Behar.
3. The Principal, Acharya B. N. Seal College, P.O. & Dist. Cooch Behar, Pin Code- 736101 with reference to his/her Memo No. 611/23 dated 15.09.2023.

  
Additional Director of Public Instruction (Admn.),  
West Bengal

**PHOTO GALLERY**



**Mangrove Vegetation**



**Salt Water Crocodile**



**Pasur Tree**



**Gnewa Tree**



**Stilt roots & Pneumatophores**



**Golden Leather Fern**



**Mangrove Plants Root System**



**Kankra Flower**



**Houseboat**



**Group Photo at Sajnekhali**

## SYLLABUS

### **Practicals - Marks 30**

#### **Core Course - V (Practical) (Marks 15)**

#### **HBOT-CCP-305-(15)**

#### **Plant Systematics-**

Study of morphology of locally available plants of following families including floral formula floral diagram and their identification up to genus by following published keys ( eg. Bengal Plants by David Prain ,1903):Malvaceae, Fabaceae, Euphorbiaceae, Apiaceae, Apocyanaceae, Solanaceae,

Schrophulariaceae, Acanthaceae, Lamiaceae, Rubiaceae, Cucurbitaceae and Commelinaceae.

Spot identification up to species mentioning families of all locally available plants included under the theoretical syllabus.

Field study

### UG CBCS 3<sup>RD</sup> SEMESTER CORE-5 SYLLABUS (SYSTEMATICS )

### **Ethnobotany**

#### **(Credits: Theory 4, Practical 2)**

#### **Theory-**

##### **1: Ethnobotany**

Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles. Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses.

##### **2: Methodology of Ethnobotanical studies**

a) Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) temples and sacred places.

### UG CBCS 5<sup>TH</sup> SEMESTER DSE-1 SYLLABUS (ETHNOBOTANY )

**EDUCATIONAL TOUR AT  
TOTOPARA, ALIPURDUAR**

**(16/12/2023)**

**DEPARTMENT OF BOTANY  
ACHARYA BROJENDRA NATH SEAL COLLEGE  
COOCH BEHAR 736 101, WEST BENGAL**

**REPORT ON EDUCATIONAL EXCURSION / FIELD TRAINING AT  
TOTOPARA ON 16/12/2023**

A 'One-day Educational Tour' was organised by the Department of Botany, Acharya Brojendra Nath Seal College, Cooch Behar on 16<sup>th</sup> of December, 2023 to Totopara, Alipurduar, West Bengal. A total of 50 students of 1<sup>st</sup> Semester were part of this educational tour. Students were accompanied by departmental teachers including- Dr. Aninda Mandal (HoD), Sri Ajoy Das and Dr. Bapi Ghosh respectively.

The objective of this tour was to- familiarise students with economic plants around us, ecology of the site visited; give exposure to natural habitat and characters of the plant specimen present in the site and most importantly to study the ethnobotany related to Totopeople.

'Totopara' is 80 km away from Cooch Behar town, situated in the Indo-Bhutan border in the district Alipurduar, a spot well known for its scenic beauty and the endemic Toto people.

In the morning, students gathered at the College campus at 8:00 AM as directed by teachers and departed for the destination at 8:30 AM. Journey was made on a 60 seater bus. During heading to the destination, the bus travelled through Chilapata forest and Hantupara Tea Garden, everyone enjoyed the view of the forest and the tea garden and ultimately reached the spot by 10:45 AM. Just after reaching the spot, breakfast arranged by the faculty was provided to the students, later students walked around the place in guidance of teachers and were made to explore the local plants of the site. During the exploration, students interacted with the Toto people, tried to learn about their lifestyle, food habit and ethnobotany associated with them. Students quite enjoyed the beautiful sight of the natural steam of flowing river near the village. After staying and exploring the place for about 5 hours, departed from the site at around 4:00 P.M and reached Cooch Behar by 6:30 PM. On reaching the final destination, all the students were directed to head back to their respective homes safe and sound, eventually marking an end to this one-day educational tour.

## MOVEMENT ORDER OF THE EXCURSION



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GOVERNMENT OF WEST BENGAL  
OFFICE OF THE PRINCIPAL  
ACHARYA B. N. SEAL COLLEGE  
COOCH BEHAR, WEST BENGAL 736101, INDIA

Memo No. 753/23

Date: 14/12/2023

### MOVEMENT ORDER

This is to state that a group of 50 UG 1<sup>st</sup> Semester NCCF Botany (Hons.) students along with the escorting teachers of Department of Botany of this College whose details are given below will remain engaged in an excursion / field study in Totopara, Alipurduar on 16.12.2023 (Saturday) from 8:00 AM to 6:00 PM.

The excursion / field study is related to the practical and theoretical syllabus of Major 1 (BOT-MAJ1 Economic Botany and Ethnomedicine) courses of the affiliating University.

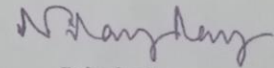
#### LIST OF THE ESCORTING TEACHERS AND OTHER STAFF OF THE DEPARTMENT

1. Dr. Binod Chandra Sharma, Associate Professor
2. Dr. Aninda Mandal, Assistant Professor
3. Sri Ajoy Das, Assistant Professor
4. Dr. Bapi Ghosh, Assistant Professor

#### LIST OF STUDENTS

Name	Gender
Abhipsa Chakraborty	Female
Anirban Das	Male
Ankita Paul	Female
Arpita Barman	Female
Chayan Saiba	Male
Debangana Saha	Female
Debojit Sarkar	Male
Debosmita Karmakar	Female
Gourav Kumar Banik	Male
Gulshan Mehdi	Male
Jay Dey	Male
Joydeb Barman	Male
Junayet Alom Miah	Male
Kaushal Sah	Male
Mahan Roy	Male
Manti Chanda	Female
Mihir Ray	Male
Mrinmoy Biswas	Male
Papiya Sarkar	Female
Parikhit Barman	Male
Pijush Barman	Male
Pradipta Barma	Male
Priangshi Chakraborty	Female
Ranak Roy	Male
Ranit Dutta	Male
Riya Barman	Female

Name	Gender
Rohita Kar	Female
Sangita Barman	Female
Sayashree Saha	Female
Shayan Dutta	Male
Shibam Deb	Male
Shubhajit Saha	Male
Shubhradeep Topwar	Male
Snehashree Bhowmik	Female
Sougata Banik	Male
Soumyadip Narjinari	Male
Sourav Basumata	Male
Subhajit Das	Male
Sujay Roy	Male
Sunny Dutta	Male
Surojit Sil	Male
Sushanta Debnath	Male
Suswagata Datta	Male
Swapn Sarkar	Male
Swarup Narjinari	Male
Tamanna Barman	Female
Tania Mandal	Female
Tanisha Das	Female
Tannima Paul	Female
Urmi Sarkar	Female



Principal  
Principal  
A B N Seal College  
Cooch Behar

## PHOTO GALLERY



Field visit at Totopara



Totopara, West Bengal, India  
R8M4+XV3, Totopara Rd, Totopara, West Bengal 735220, India  
Lat 26.833943°  
Long 89.307126°  
16/12/23 01:53 PM GMT +05:30

Interaction with Toto People



Processing of Marua



Hantupara Tea Garden, West Bengal, India  
Totopara Rd, Hantupara Tea Garden, West Bengal 735220, India  
Lat 26.738266°  
Long 89.263712°  
16/12/23 11:49 AM GMT +05:30

Group Photo at Hantupara Tea Garde

## SYLLABUS

**Course:** Practical Syllabus of Major 1

**Paper Name:** Economic Botany and Ethnomedicine

**Paper Code:** BOT-MAJ1

1. Habit sketch of plants included in theory syllabus.
2. Microscopic study of starch grains and fiber included in theory syllabus.
3. Excursion (Local and outstation, mandatory for each student) and Submission of dry specimen.

UG NCCF 4-YEAR 1ST SEMESTER SYLLABUS (MAJOR 1, ECONOMIC BOTANY & ETHNOMEDICINE)

**EDUCATIONAL TOUR AT  
MAHUA, ALIPURDUAR  
(25/02/2024)**



**DEPARTMENT OF BOTANY  
ACHARYA BROJENDRA NATH SEAL COLLEGE  
COOCH BEHAR 736 101, WEST BENGAL**

**REPORT ON ONE-DAY EDUCATIONAL TOUR AT MAHUA on 25/02/2024**

A 'One-day Educational Tour' was organised by the Department of Botany, Acharya Brojendra Nath Seal College, Cooch Behar on 25<sup>th</sup> of February, 2024 to Mahua, Uttar Barajhar Forest, Alipurduar, West Bengal. A total of 78 students of 2<sup>nd</sup>, 4<sup>th</sup>, and 6<sup>th</sup> Semester were part of this educational tour. Students were accompanied by departmental teachers including- Dr. Aninda Mandal (HoD), Sri Ajoy Das, Dr. Bapi Ghosh, and Smt. Jayita Debnath respectively.

The objective of this tour was to- familiarise students with ecology of the site visited; give exposure to natural habitat and characters of the plant specimen present in the site.

'Mahua' is 65.4 km away from Cooch Behar town, a spot well known for its scenic beauty, situated near Jaigaon, falls under district Alipurduar.

In the morning, students gathered at the College campus at 8:00 AM as directed by teachers and departed for the destination at 8:45 AM. Journey was made on a 80 seater bus. During heading to the destination, the bus travelled through Chilapata forest, everyone enjoyed the view of the forest and ultimately reached the spot by 10:45 AM. Just after reaching the spot, breakfast arranged by the faculty was provided to the students, later students walked around the place in guidance of teachers and were made to explore the local plants of the site. During the exploration, Students of 2<sup>nd</sup> and 4<sup>th</sup> Semester students were provided with detailed insight on the ecology and biodiversity of the site while Students of 6<sup>th</sup> Semester explored the natural habitat and studied the plants available in the area. Students quite enjoyed the beautiful sight of the natural steam of flowing Torsa river present in the spot. After staying and exploring the place for about 4 hours, lunch was being arranged for everyone. Just before leaving, a group photograph was taken with the students of respective semesters. And finally departed from the site at around 4:30 P.M and reached Cooch Behar by 6:30 PM. On reaching the final destination, all the students were directed to head back to their respective homes safe and sound, eventually marking an end to this one-day educational tour.

## MOVEMENT ORDER OF THE EXCURSION



Website: <https://abnscollge.org/>  
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**GOVERNMENT OF WEST BENGAL**  
**OFFICE OF THE PRINCIPAL**  
**ACHARYA BROJENDRA NATH SEAL COLLEGE**  
 COOCH BEHAR, WEST BENGAL 736101, INDIA

Memo No. 77/24

Date: 22/02/2024

### MOVEMENT ORDER

This is to state that a group of 78 UG students having Hons. / Major in Botany (1<sup>st</sup> Semester NCCF – 50, UG CBCS 4<sup>th</sup> Semester – 15, UG CBCS 6<sup>th</sup> Semester – 13) along with the escorting teachers of Department of Botany of this College whose details are given below will remain engaged in an excursion / field study in Mohua, Alipurduar District on 25.02.2024 (Sunday) from 8:00 AM to 6:00 PM.

The excursion / field study is related to the practical and theoretical syllabus of UG NCCF 2<sup>nd</sup> Semester (BOT-MAJ2; Ecology and Phytogeography), UG CBCS 4<sup>th</sup> Semester (CC9; Ecology) and UG CBCS 6<sup>th</sup> Semester (DSE-III; Research Methodology) courses of the affiliating University.

#### LIST OF THE ESCORTING TEACHERS AND OTHER STAFF OF THE DEPARTMENT

(1) Dr. Aninda Mandal, Assistant Professor, (2) Sri Ajoy Das, Assistant Professor, (3) Dr. Bapi Ghosh, Assistant Professor (4) Smt. Jayita Debnath, SACT-II

#### LIST OF STUDENTS

Name of the Student	Gender	Semester
ADITI PAUL	Female	UG CBCS 6 <sup>th</sup> Semester
ALAMIN HAQUE	Male	
ALLIVA PARVIN	Female	
ANKAN RAY	Male	
DEBARAJ GOON	Male	
MURSHIDA PARVIN	Female	
PAROMITA PAUL	Female	
PURBASHA DAS	Female	
RITU SARKAR	Female	
SHREYA GHOSH	Female	
SIDHARTH THAPA	Male	
SMRITIKANA ROY	Female	
SUSHANTA BARMAN	Male	
ANANTA PAUL	Female	
ANUSHKA DEY	Female	
DIPANJALI ROY	Female	
GITASREE SIL	Female	
INDRANI BISWAS	Female	
JAMIMA AHAMED	Female	
MILAN ROY	Male	
NEHA RAVA	Female	
RIM PANDIT	Female	
ROCKY BARMAN	Male	
SAMPA SAHA	Female	
SUBHAM DAS	Male	
SURAJIT ROY	Male	
TANIA DUTTA	Female	
VICTOR BHOWMIK	Male	
ABHIPSA CHAKRABORTY	Female	
ANIRBAN DAS	Male	
ANKITA PAUL	Female	
ARPITA BARMAN	Female	
CHAYAN SAIBA	Male	
DEBANGANA SAHA	Female	
DEBOJIT SARKAR	Male	
DEBOSMITA KARMAKAR	Female	
GOURAV KUMAR BANIK	Male	
GULSHAN MEHDI	Male	
JAY DEY	Male	
JOYDEB BARMAN	Male	

Name of the Student	Gender	Semester
JUNAYET ALOM MIAH	Male	
KAUSHAL SAH	Male	
MAHAN ROY	Male	
MANTI CHANDA	Female	
MIHIR RAY	Male	
MRINMOY BISWAS	Male	
PAPIYA SARKAR	Female	
PARIKHIT BARMAN	Male	
PIJUSH BARMAN	Male	
PRADIPTA BARMA	Male	
PRIANGSHI CHAKRABORTY	Female	
RANAK ROY	Male	
RANIT DUTTA	Male	
RIYA BARMAN	Female	
ROHITA KAR	Female	
SANGITA BARMAN	Female	
SAYASHREE SAHA	Female	
SHAYAN DUTTA	Male	
SHIBAM DEB	Male	
SHUBHAJIT SAHA	Male	
SHUBHRADEEP TOPWAR	Male	
SNEHASHREE BHOWMIK	Female	
SOUGATA BANIK	Male	
SOUMYADIP NARJINARI	Male	
SOURAV BASUMATA	Male	
SUBHAJIT DAS	Male	
SUJAY ROY	Male	
SUNNY DUTTA	Male	
SUROJIT SIL	Male	
SUSHANTA DEBNATH	Male	
SUSWAGATA DATTA	Male	
SWAPAN SARKAR	Male	
SWARUP NARJINARY	Male	
TAMANNA BARMAN	Female	
TANIA MANDAL	Female	
TANISHA DAS	Female	
TANNIMA PAUL	Female	
URMI SARKAR	Female	

*(Signature)*

Principal  
Principal

Acharya Brojendra Nath Seal College

**PHOTO GALLERY**



**Vegetation Study**



**Ecological Association**



**RIVERINE ECOSYSTEM**



**STUDENTS OF 2<sup>ND</sup> SEMESTER**



**STUDENTS OF 4<sup>TH</sup> SEMESTER**



**STUDENTS OF 6<sup>TH</sup> SEMESTER**

## SYLLABUS

**Course:** Practical Syllabus of Major 2

**Paper Name:** Ecology and Phyto-geography

**Paper Code:** BOT-MAJ2

### Ecology and Phyto-geography:

Determination of dissolved oxygen (O<sub>2</sub>) and carbon di oxide (CO<sub>2</sub>) of water samples from polluted and unpolluted sources.

Study of morphological adaptations of hydrophytes and xerophytes (four each).

Study of biotic interactions of the following: Stem parasite (*Cuscuta*), Root parasite (*Orobanche*) Epiphytes.

Excursion (Local and outstation, mandatory for each student) to familiarize students with ecology of different sites.

To prepare map showing vegetation of West Bengal and to comment on it.

To prepare map of India with respect to – Major Climatic Zones, Biogeographical regions of India and to comment on it.

## UG NCCF 4-YEAR 2<sup>ND</sup> SEMESTER SYLLABUS (MAJOR 2, ECOLOGY & PHYTOGEOGRAPHY)

### Core Course - IX (Practical) (Marks 15)

#### HBOT-CCP-409

#### Ecology -

1. Determination of dissolved oxygen of water samples from polluted and unpolluted sources.
2. (a). Study of morphological adaptations of hydrophytes and xerophytes (four each).  
(b). Study of biotic interactions of the following: Stem parasite (*Cuscuta*), Root parasite (*Orobanche*) Epiphytes.
3. Determination of minimal quadrat size for the study of herbaceous vegetation in the college campus, by species area curve method (species to be listed).
4. Quantitative analysis of herbaceous vegetation in the college campus for frequency and comparison with Raunkiaer's frequency distribution law.
5. Quantitative analysis of herbaceous vegetation for density and abundance in the college campus.
6. Field visit to familiarise students with ecology of different sites.

## UG CBCS 4<sup>TH</sup> SEMESTER CORE-9 SYLLABUS (ECOLOGY & PHARMACOGNOY)

### Practical

1. Experiments based on chemical calculations.
2. Plant microtechnique experiments.
3. The art of imaging of samples through microphotography and field photography.
4. Poster presentation on defined topics.
5. Technical writing on topics assigned.
6. Field visit

## UG CBCS 6<sup>TH</sup> SEMESTER DSE-3 SYLLABUS (RESEARCH METHODOLOGY)