



To,
The Principal,
Silapathar Science College,
Silapathar- 787059

Through,
The Co-ordinator,
Department of Botany and Zoology,
Silapathar Science College

Subject: Submission of Field Study Report on visit to Sundarban National Park.

Respected Sir,

With due respect, I am forwarding the report on the field study conducted in Sundarban National Park. The study emphasizes key observation on biodiversity and ecological features of the National Park.

Thank you for your support in facilitating such academic activities.

Forwarded
7/11/24
26/11/24

Yours sincerely,

Dr. Pinku Satnami
Assistant Professor
Department of Zoology (PG)
Silapathar Science College

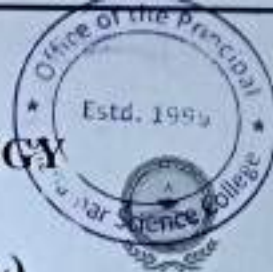
Accepted
26/11/24

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**POST GRADUATE DEPARTMENT OF ZOOLOGY
SILAPATHAR SCIENCE COLLEGE**

(Affiliated to Assam Science and Technology University)



**A FIELD REPORT
VISIT TO SUNDARBAN NATIONAL PARK
(South 24 Parganas, West Bengal , India)**

Course Title: Economic Zoology & Animal Behavior Lab

Course Code: MZY182312

[Signature]
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INTRODUCTION

Study tour helps us to know more about nature, accumulate practical knowledge and strong our theoretical knowledge .

Zoology is the scientific study of animals, including how they behave, reproduce, evolve and interact with other species and their environment .

For study the behavioral activities of animals we choose our destination as Sundarban National Park , because the Sundarban is the largest single block of total halophytic mangrove forest in the world , also the Sundarbans is a UNESCO world heritage site . The mangrove forest and the overall ecosystem is Sundarbans are the ideal habitats for large group of terrestrial , avian and aquatic fauna, starting from protozoa to mammals . It contains richest biodiversity in the world's and it is the only natural mangrove forest in the world , where the tiger (*Panther tigris tigris*) resides. The dense mangrove foresta are one of the largest reserves for the Bengal tiger .

The reason for high faunal diversity is the fact that here the ocean to land and to fresh water/blackish water through estuaries change in water salinity from almost nil to high through grades of different concentration, newly old islands with hard saline banks provides fascinating habitat opportunities to various organisms .

The present Sundarban National Park was declared as the core area of Sundarbans Tiger Reserve in 1973 and a wildlife sanctuary in 1977. On May 4, 1984 it was declared a National Park.

Sundarban is a mangrove area in the delta formed by the confluence of the Padma, Brahmaputra and Meghna rivers in the Bay of Bengal . It spans the area from the Baleswar River in Bangladesh division of Khulna to the Hoogly River in India's State of Bengal .

Four protected areas in the Sundarban are enlisted as UNESCO world Heritage Sites , viz Sundarban West(Bangladesh) , Sundarban South(Bangladesh), Sundarban East(Bangladesh), Sundarban National Park(India) .

The Indian Sundarban were considered endangered in a 2020 assessment under the IUCN Red list of ecosystem .


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Our Team –

Guide/Professor

- 1) Dr. Pinku Satnami

Students –

- 1) Bickrom Hazarika
- 2) Pinky Das
- 3) Sabita Borah
- 4) Tridibya Sonowal Borah
- 5) Trisha Boro



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SITE INFORMATION

The Sundarban covers 10,000 km² of land and water (6,017 km² of which forest in Bangladesh khulna Division and in west Bengal they extend over 4,260 km² across the south 24 parganas and North 24 parganas districts) in the Ganga delta . The delta is densely covered by mangrove forests; and is one of the largest reserves for the Bengal tiger . It contains the world's largest area of mangrove forests .

The Sundarban National Park is a National Park, Tiger Reserve and Biosphere Reserve , also it is an UNESCO world heritage site inscribed in 1987 and it has been designated as a Ramsar site, since 2019 . It is considered as a World Network of Biosphere Reserve (Man and Biosphere Reserve) from 1989 .

A number of rare and endangered species live in the park , including tigers, aquatic mammals , birds and reptiles. In Sundarban National Park there are 7 watch towers are present. These watch towers provides us a stunning panoramic view of the natural wonder of Sundarban .

These Watch Towers namely-

- 1) Sajnekhali Watch Tower.
- 2) Sudhanyakhali Watch Tower.
- 3) Dobanki Watch Tower.
- 4) Netidhopani Watch Tower.
- 5) Bonnie Camp .
- 6) Burirdabri Camp.
- 7) Jhingekhali Watch Tower .


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Figure : Map of Sundarban National Park



AREA AND LOCATION

Sundarban is a mangrove area in the delta formed by the confluence of the Padma, Brahmaputra and Meghna rivers in the Bay of Bengal. It spans the area from the Baleshwar River in Bangladesh division of Khulna to Hooghly River in Indian State of West Bengal.

It occupies an area between longitude 89.00' E and 89.55' E and latitudes 21.30' N and 22.30' N. The western boundary of Sundarban follows the Hariabangha- Raimangal-Kalindi Rivers and above with the Indian Sundarbans. To the south, the forest meets the Bay of Bengal and the approximate "Curtis line" and the national boundary line, to the east it is bordered by the Baleshwar River and to the North there is a sharp interface with intensively cultivated land, all of which is interested by a tidal rivers and canals.

PURPOSE OF THE STUDY TOUR

Field study is an essential part of the study of Zoology. Only classroom instruction can't bring the all round development of the students. Another important aspect is to achieve experience of the interaction of the living thing with their environment from such field trip.

Keeping all these in view and for partial fulfillment of our syllabus. Our teachers took interest in organizing a study tour to Sundarban National Park.


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OBJECTIVE OF THE STUDY TOUR



1. To collect and observe the flora and fauna of Sundarban National Park.
2. To study behavioural activities of animals.
3. To study the environment of the National Park.
4. To observe the habitat of the collected species.
5. To take photograph of the collected species for documentation.
6. To discover the uniqueness of mangrove forest in Sundarban.
7. To see the functions of the Sundarban ecosystem.
8. To study the adaptive features of some species.
9. To understand the importance of saving the remaining mangrove ecosystem in Sundarban.
10. To analyse the conservation work carried out in Sundarban.


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METHODS AND METHODOLOGY



The methodology used in order to achieve our objectives-

1. Boat safari.
2. Communication with local peoples, workers and guides.
3. Photograph.
4. Secondary sources – Internet for collecting other information.
5. Collection – Collection was done by means of various animal signs like foot prints, photograph etc.
6. Camera, Binocular and Notebook were our main equipments of observation and documentation.


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DATE OF SCHEDULE



31st October 2024 :

On 31st October 2024, 5 students with 1 lecturer went for a trip to West Bengal with an aim to visit the Sundarban National Park. We started our journey from Dhemaji to Howrah at 12:30 a.m. by Train (Kamrup Express). Around 1:30 p.m. on 2nd November we reached Howrah station.

2nd November 2024 :

From Howrah station we started our journey to Sealdah by bus and then from Sealdah Railway station to Canning by train. After that the hotel employees pickup us from Canning to drop us at Gitashree hotel.

In the evening we went for a boat safari and next visited the local market over there. Around 6:30 p.m. to 8 p.m. we all enjoyed the evening tea time with beautiful Jhumur dance on behalf of hotel management. We had our dinner at 9 p.m. .

3rd November 2024 :

On 3rd November at 6:30 a.m. we had our bed tea and then at 8 a.m. they took us to the boat cruise which will enter inside one of the biggest mangrove forest narrow creek followed around the island of the Sundarban Tiger Reserve .

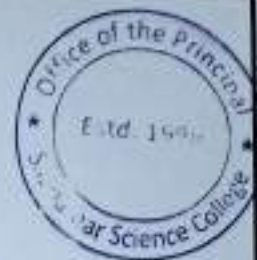
During this period we have visited three watch towers –

- i. Sajnekhali Watch Tower.
- ii. Sudhanyakhali Watch Tower.
- iii. Dobanki Watch Tower.

4th November 2024 :

On 4th November at 11:30 a.m. we went to Beacon Bungalow (Rabindranath Tagore Bungalow and Status) and then return to Sealdah . In Sealdah we booked a hotel for lodging, after taking our meals and some rest we went for shopping in evening.


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5th November 2024 :

Early morning we had earthen pot tea, breakfast and went to Science city where we watched 3D space show, Evolution of life- Dark ride, Marine life 3D movie and at last we ride on the ropeway of Science city. After having lunch we went to visit Victoria Memorial.

6th November 2024 :

Around 8:30 a.m. all of us went to Kali temple for worship. After having lunch we went to Alipore Zoological Garden and went back to hotel.

7th November 2024 :

On 7th November we return back to Howrah by bus and started our journey from Howrah to Dibrugarh on train.

9th November 2024 :

We reached Dibrugarh station at 6:30 a.m. and from Dibrugarh to Silapathar by bus. Here our journey of field study comes to an end.


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OBSERVED SPECIES



1. Monkey
2. Turtle
3. Monitor lizards
4. Crabs
5. Saltwater crocodile
6. Mudskipper
7. Squirrel
8. Sundari tree
9. Nipa palm or mangrove palm


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Figure : Old world monkey (*Cercopithecus*) in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Mammalia

Order - Primates

Family – Cercopithecidae

Genus – *Cercopithecus*

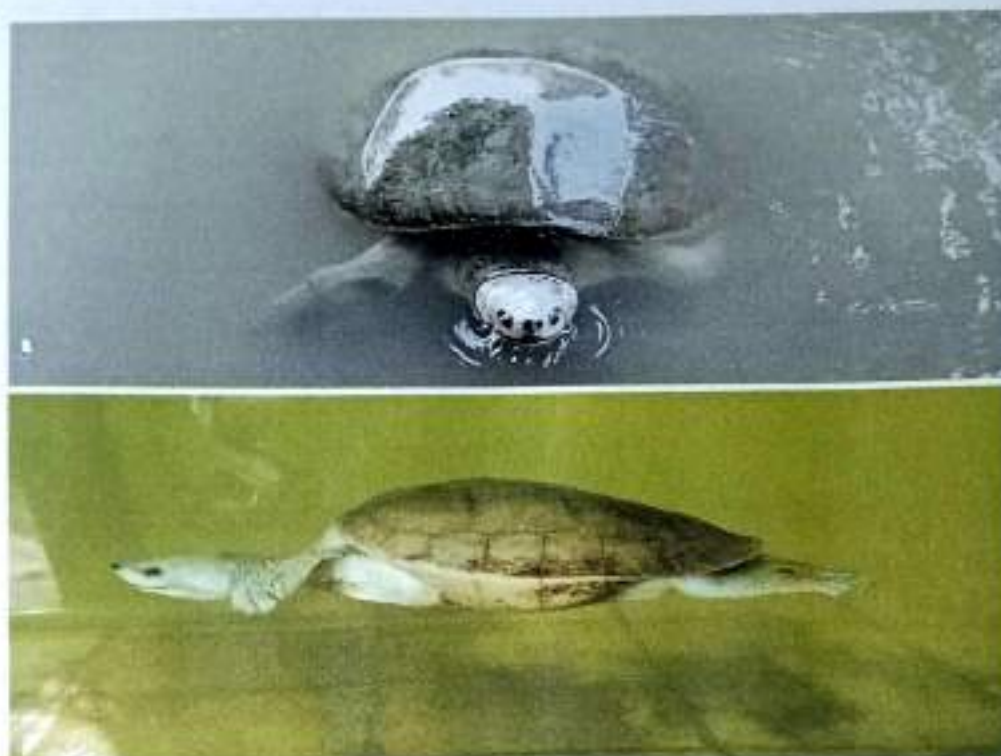


Figure : Turtles in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Reptilia

Order -Testudines

Family- Cheloniidae

Genus - *Chelonia*

Species - *chelone*



Figure : Monitor lizards (*Varanus*) in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Reptilia

Order - Squamata

Family - Varanidae

Genus – *Varanus*

Species - *komodoensis*



Figure : Mangrove crab (*Scylla serrata*) in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Malacostraca

Order - Decapoda

Family - Portunidae

Genus – *Scylla*

Species - *serrata*



Figure : Saltwater crocodile (*Crocodylus porosus*) in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Reptilia

Order - Crocodilia

Family - Crocodylidae

Genus – *Crocodylus*

Species - *porosus*



Figure : Mudskipper in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Actinopterygii

Order - Gobiiformes

Family - Oxudercidae



Figure : Squirrel (*Sciurus*) in their wild habitat .

Scientific classification :

Kingdom - Animalia

Phylum - Chordata

Class - Mammalia

Order - Rodentia

Family - Scuridae

Genus – *Sciurus*



Figure : Sundari tree (*Heritiera fomes*)



Figure : Nipa Palm or mangrove palm (*Nypa fruticans*)

OBSERVE PROBLEMS



1. Top dying of Sundari trees.
2. Exploitation of resources.
3. Excessive number of tourists.
4. Erosion and accretion

IMPORTANCE OF SUNDARBAN MANGROVE FOREST

The Sundarban is of universal importance for globally endangered species including the Royal Bengal Tiger, Ganges and Irawadi dolphins, estuarine crocodiles and critically endangered endemic river terrapin (Batagur baska). It is the only mangrove habitat in the world for *Panthera tigris tigris* species. They are also important to the ecosystem too. Their dense roots help bind and build soils. Their above ground roots slow down water flows and encourage sediment deposits that reduce coastal erosion.

The complex mangrove roots system filter nitrates, phosphates and other pollutants from the water, improving the water quality, flowing from rivers and streams into the estuarine and ocean environment.


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Figure : Sundarban National Park site view



Figure : Dobanki Camp



Figure : Beacon Bungalow (Rabindranath Tagore Bungalow and Status)



Figure : Science city, Kolkata



Figure : Victoria Memorial , Kolkata



Figure : Zoological Park, Kolkata



CONCLUSION

Study tour or field trip always make a clear sense about theoretical knowledge. Sundarban covers almost half of the Bangladesh's total forest area. So, if we did not have the opportunity of this tour we would be in dark about the magnificent feature of mangrove forest.

As a student of Zoology I am really grateful to my honorable teacher and also to my beloved college for letting enjoy and learn about one of the most unique ecosystem of the earth.

Importance of Sundarban mangrove forest is something that can not be understood without understanding the complex ecosystem of Sundarban. Our most awaited tour gave us that opportunity.

It was our last academic tour, I think the knowledge we gathered there in Sundarban tour will help us our future professional life.


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