

A Visit to Bishnupur Sericulture Complex, Bankura District, West Bengal



**Submitted by – Department of Zoology,
Durgapur Women’s College**

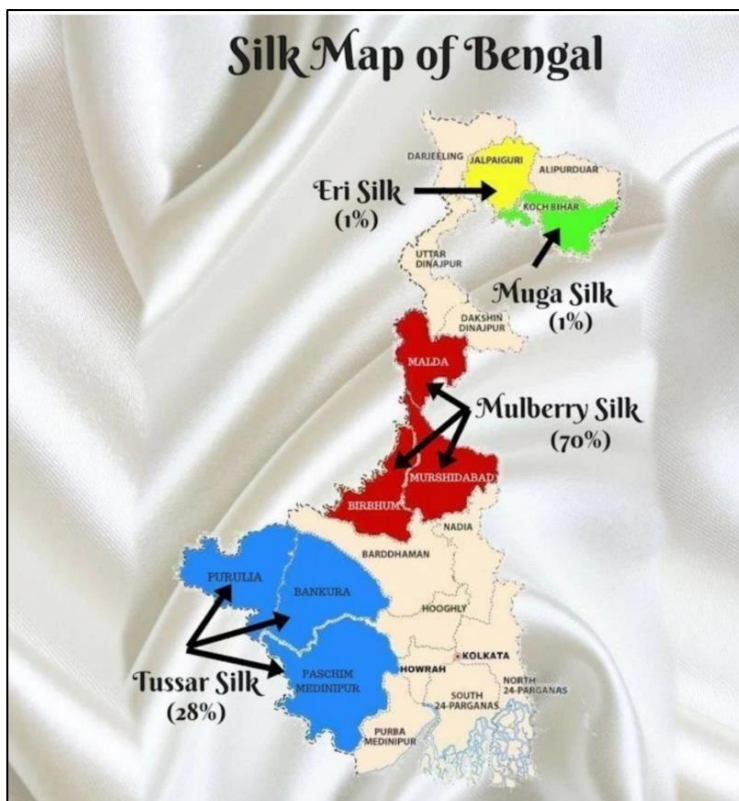
Silk which spells luxury, elegance and sophistication has been traditionally intermingled with the life and culture of Indians. It is a continuous filament consisting of two types of protein i.e. Sericin and Fibroin, secreted from the silk glands of a matured silk worm larva. Sericulture, an agro-based cottage industry, deals with the production of silk. The word ‘Sericulture’ has been derived from a combination of Latin word ‘*Sericum*’ meaning silk and French word ‘*culture*’ meaning cultivation.

It consists of 3 (three) distinct categories of activities:

- i) Cultivation and maintenance of silk worm host plant.
- ii) Rearing of silk worm for production of cocoons
- iii) Extraction of silk yarn from cocoons, *i.e.*, silk reeling and other post-cocoon activities like spinning, twisting, weaving, processing, printing etc.





Sericulture in West Bengal:

Sericulture, an agro-based cottage industry, is a traditional rural avocation in West Bengal providing employment and livelihood to more than 1 Lakh families who predominantly dwell in rural and semi urban areas. Sericulture is also an activity where more than 60% of the work force is women and consequently a large population of womenfolk reaps the benefit of various developmental schemes. The immense potentiality of Sericulture in reconstructing rural economy and its labour intensive nature necessitated creation of a separate Directorate under Cottage & Small Scale Industries Department way back in the year 1975.



Types of Silk:

It is noteworthy that all the 4 (four) commercially exploited varieties of Silk *i.e.* Mulberry, Tasar, Eri and Muga are being produced in West Bengal, of which Mulberry and Eri silkworm are domestic (reared indoor) and Tasar and Muga are wild (silkworms are reared outdoor on trees). Each of the silk worm species feeds on leaves of specific host plant as indicated below:

Type of Silk	Name of Silk worm	Name of Host Plant	Distribution
Mulberry	<i>Bombyx mori</i> 	Mulberry	Throughout the state except Howrah & East Midnapore district.
Tasar	<i>Antheraea mylitta</i> 	Arjun, Asan, Sal	Bankura, Purulia, Birbhum, Paschim Midnapore & part of Burdwan.
Eri	<i>Philosamia ricini</i> 	Castor	Jalpaiguri, D. Dinajpur, 24 PGs (N&S)
Muga	<i>Antheraea assamensis</i> 	Som, Soalu	Coochbehar, Jalpaiguri & Darjeeling

Why Sericulture:

- Agro-based labour intensive cottage industry with low capital investment and higher returns
- Can be grown on all types of soil including waste lands
- Small gestation period, 4-5 crops can be harvested in a year
- Eco-friendly venture with immense utility in afforestation of land and anti-soil erosion programme
- Silk being a highly valued textile material, provides higher flow of income from rich to poor
- Sericulture keeps rural population employed in villages and thus checks their migration to town
- Involvement of more than 60% work force from womenfolk
- Source of earning foreign exchequers

Our Trip to Bishnupur Sericulture Complex:

An educational trip was organized by the Dept. of Zoology, Durgapur Women's College to Bishnupur Sericulture Complex, Bankura District, West Bengal on 24.05.2023. Bishnupur Sericulture Complex is well known for the Mulberry silkworm and Tasar silkworm culture throughout India. The Centre is managed by the Extension Officer, Mr. Sunil Ghosal. Harisankar Das, the staff member and trainer gave an informed lecture on 'life cycle of silk moth' also by taking us around the entire centre. We were able to see the incubation room where the eggs are placed for hatching, the mulberry and arjun tree plantation where the silk worms are fed and cocoons are formed. The cocoons are also finally collected and the silk extraction process takes place. Best quality cocoons are left to hatch and become silkworms. They further lay eggs and this way the silk process starts again.

The local people of the region are trained at the centre as a part of skill development program. The centre also has a Silk processing unit where fibres are extracted from the cocoon. The silk is also reeled into the basic spools which go for weaving.



Objectives:

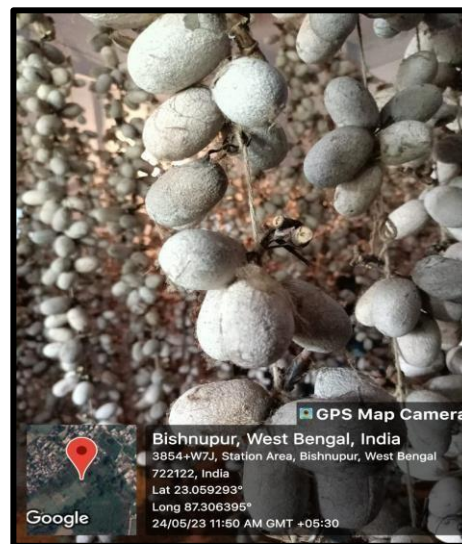
The objectives of this field visit were to:

- Demonstrate the life cycle of silk worm.
- Practical exposition of agriculture of this field of mulberry and tasar to obtain its leaves, on which silkworm caterpillar feeds.
- Observe the life cycle of *Bombyx mori* and *Antheraea mylitta*- hundreds of eggs were laid on leaves, caterpillar feeding on leaves of mulberry and arjun respectively, cocoon collected to extract silk, adults collected in jars.
- Demonstration of equipments used in rearing of silkworms and spooling machineries.
- Cost effective methods and materials required to establish sericulture.
- Application and economic importance of silk culture.

Outcome:

This field visit was of great use for us after practical knowledge we obtain. We collected life cycle stages like, eggs, leaves, cocoon etc. Understanding towards the concept and its application of sericulture was cleared after this visit. We were also able to see the end product in the form of silk fabrics. Moreover, it was an ocean of textiles to see and understand.

On the whole, it was a very fruitful field trip for us.



FIELD REPORT

To
The Teacher-in-Charge,
Durgapur Women's College.

Subject: Field Report on excursion conducted at and around Digha.

Respected
Madam,

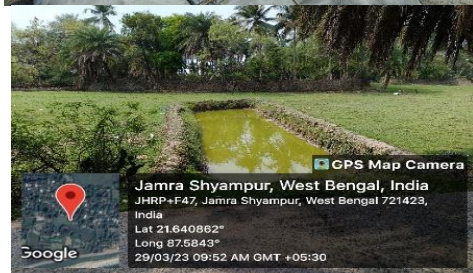
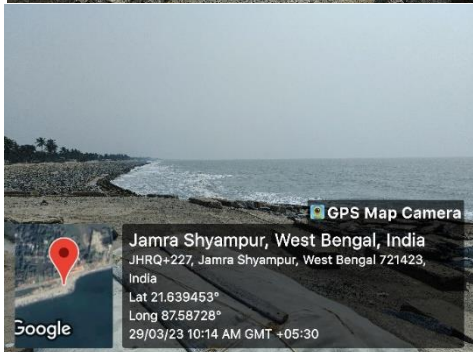
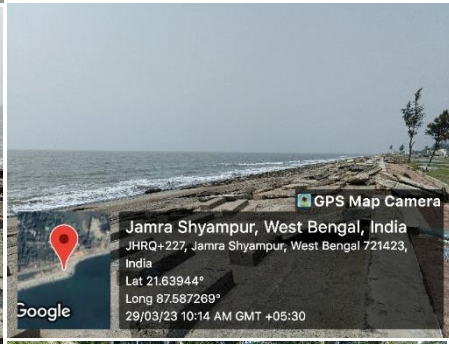
As you know that Geography Department along with Zoology Department had conducted an excursion at and around Digha on devastating effects of cyclones happened in the last few years. We have successfully completed this disaster management field tour. A list of our daily activities during our excursion along with some photos and some other details as testimonials are given below.

DAY	EVENTS
Day 1	Reached Digha at evening
Day 2	Visited Shankarpur for field survey
Day 3	Visited Bichitrapur Mangrove Forest
Day 4	Back to Durgapur, arrived at 9:45 A.M.

INFORMATION OF THE STUDENTS		
NAME OF THE STUDENTS	ROLL NUMBER	SEMESTER
RIYA RAKSHIT	SH20052	VI
DOLON BANERJEE	SH20060	VI
ARCHITA DHIBAR	SH20042	VI
SAONTY HAZRA	SH20156	VI
ARPITA BHUI	SH20023	VI
TANUSREE DAS	SH20045	VI
ANJU DAS	SH20093	VI
ANUPRIYA MANDAL	SH20044	VI
RIYA BAURI	SH20160	VI
ANUPAMA DAS	SH20092	VI
PAMPA MONDAL	SH20055	VI
SUSHMITA MAJHI	SH20003	VI
SWAGATA KARMAKAR	SH20113	VI
PUSPA DUTTA	SH20155	VI

INFORMATION OF THE ESCORTS	
NAME OF THE ESCORT	DESIGNATION
SABYASACHI DAS	SACT I
SUROBALI MURMU	SACT II





A Report on Study Tour by the Zoology Department, Durgapur Women's College

- Place – West Bengal's most popular Marine and Ecotone region, Digha
- Date of study tour – 28/03/2023 to 31/03/2023
- No. of students – 9
- No. of teachers – 3
- Teachers' name – Dr. Ramansu Goswami, Dr. Saubhik Mitra, Ms. Shiuli Chakraborty
- Purpose – Tour was based on the curriculum of the following semesters-
 - 1st Semester BSCHZOOC102 (Ecology) paper
 - 4th semester BSCHZOOC401 (Behaviour & Chronobiology)&
 - 6th Semester BSCHZOODSE603 (Aquatic Biology) paper
- Visiting Places –
 - DAY 1 – The journey begins and, in the evening, went to see the beauty of seashore
 - DAY 2 – Early morning visit of Digha Mohona, Shankarpur, Sea beach, Marine Aquarium & Regional Centre, Digha Science Centre & National Science Camp, and local fish market visit.
 - DAY 3 – Bichitrapur, Sea beach and local market visit.
 - DAY 4 – End of the journey.
- Achievements – The tour was very successful in exploring the marine ecosystems and ecotone regions therein.





