

Excursion, Field visit, Institute Visit, Study tour of Dept. of Zoology (2022-23)

Supervising faculties	Date of Visit (From.... to.....)	Semester & Course	Place of Visit	No. of students
Hemen Biswas Anirban Pandey Koustav Kundu	16/12/2022 to 20/12/2022	Core Course II (Principles of Ecology) of UG CBCS 1 st Semester Honours, P 103 (Practical: Ecology & Behaviour) of PG CBCS 1 st Semester and P 109 (Biodiversity & Wildlife+ Aquaculture and Fisheries Resources of India) of PG CBCS 3 rd Semester.	Kaziranga National Park and Hoollongarpar Gibbon Sanctuary, Assam	42 (14 from UG 1 st Sem, 13 from PG 1 st Sem, 15 from PG 3 rd Sem)
SatadalAdhikary Anirban Pandey Koustav Kundu Ajanta Datta Chattopadhyay	23/03/2023	SEC 2 (Sericulture) UG CBCS 4 th Semester Honours Course and SEC 2 (Sericulture) of UG CBCS 4 th Semester Programme Course.	Khagrabari Sericulture Composite Unit, Cooch Behar	25 (11 from UG 4 th Semester Hons. 14 from UG 4 th Semester Programme)
Hemen Biswas Anirban Pandey Ajanta Datta Chattopadhyay	11/04/2023	DSE 4 (Wild life Conservation & Management) of UG CBCS 6 th Semester Honours course and DSE 2 (Wild life Conservation & Management) of UG CBCS 6 th Semester Programme course.	Rasamati Patlakhawa Forest	33 (12 from UG 6 th Semester Hons. 21 from UG 6 th Semester Programme)
Debojyoti Dutta	24/04/2023 to 28/04/2023	DCE 4 B (Molecular Cytology and Genetics) of PG CBCS 4 th Semester	Glenmark Pharmaceuticals, Industrial Growth Centre, Ranipool Sikkim and Sikkim State Council of Science and Technology Gangtok Sikkim	7
SatadalAdhikary Anirban Pandey Koustav Kundu	03/05/2023	DCE 4 F (Entomology: Insect Pest and Management) of PG CBCS 4 th Semester	Uttar Banga Krishi Viswavidyalaya	8

Visit to Kaziranga National Park.

The Kaziranga National Park over an area of 430 km² & bounded by the Mikir Hills on the South & the Brahmaputra River on the North lies between 26° 30' -26°45'N 93°08' -93°36' E within two districts-Nagaon & Jorhat in the Indian state of Assam. The grasslands, floodplains & wet lands known locally as 'beals' provide a wide variety of species. The park was formed in 1908 on the recommendation of Mary Curzon. It is an ideal habitat for wild animals from 1908 in 1985 the Park was designated as a UNESCO natural World Heritage site. due to its outstanding biodiversity. Kaziranga National Park is one of the best managed wildlife Parks in the world. Though well known for Rhinoceros, Tiger, Elephant, Asiatic Wild Buffalo and the Eastern Swamp Deer known as "Big five. After reaching the Kaziranga National Park 2 safaris were done. Morning safari to the Western zone and afternoon safari to the Central Zone.

Kaziranga National Park also shelters about 15 species of India's threatened mammals. One horned rhinoceros (*Rhinoceros unicornis*), wild buffalo (*Bubalus bubalis*), Indian elephant (*Elephas maximus*), Royal Bengal tiger (*Panthera tigris*), Indian wild boar (*Sus scrofa*), eastern mole (*Talpamicrotus*), pangolin (*Manis*

crassicaudata), indian gaur (*Bos gaurus*), swamp deer (*Cervus duvauceli*), sambar (*Cervus unicolor*), barking deer (*Muntiacus muntjak*), hog deer (*Axis porcinus*), capped langur or leaf monkey (*Presbytis pileatus*), rhesus macaque (*Macaca mulatta*), assamese macaque (*Macaca assamensis*), leopard (*Panthera pardus*), sloth bear (*Melursus ursinus*), indian porcupine (*Hystrix indica*), jungle cat (*Felis chaus*), large indian civet (*Viverrazibetha*), small indian civet (*Viverricula indica*), indian gray mongoose (*Herpestes edwardsi*), small indian mongoose (*Herpestes saurpunctatus*), bengal fox (*Vulpes bengalensis*), golden jackal (*Canis aureus*), common otter (*Lutra lutra*), chinese ferret badger (*Melogale moschata*), hog badger (*Arctonyx collaris*), ganges and indus river dolphin (*Platanista gangetica*), orange-bellied himalayan squirrel (*Dremomys lokriah*), asiatic black bear (*Selenarctos thibetanus*)

Almost 478 species of birds (both migratory and resident) have been spotted at the park, including 25 globally threatened and 21 near threatened species. The park has also been identified as an Important Bird Area (IBA) by Birdlife International for the conservation of the avifaunal species.

Waterfowl breeds in or passing through Kaziranga includes several rare species of geese (lesser white-fronted goose), and ducks (ferruginous pochard, Baer's pochard). Other rare riverine birds include kingfishers (Blyth's kingfisher), herons (white-bellied heron), pelicans (Dalmatian pelican, spot-billed pelican), shanks (spotted greenshank) and terns (black-bellied tern). Rare migratory storks and cranes are also seen wintering in the park (lesser adjutant, greater adjutant, black-necked stork, Asian openbill).

Kaziranga hosts a large number of raptors, considered a sign of a healthy ecosystem. This includes the rare eastern imperial eagle, greater spotted eagle, white-tailed fishing eagle, Pallas's fish eagle, grey-headed fish eagle and the lesser kestrel. Kaziranga was once home to seven species of vultures. Of these, the red-headed vulture, and Eurasian black vulture are still near threatened due to their large range, but the Indian vulture, slender-billed vulture and the Indian white-rumped vulture have suffered cataclysmic loss of numbers and are virtually extinct in the wild, including Kaziranga. The Indian populations of the other two vultures have similar losses — the griffon vulture and the Himalayan griffon. Rare game birds (which were once hunted) include partridges (swamp francolin), bustards (Bengal florican) and pigeons (pale-capped pigeon). Several other important families of birds inhabit Kaziranga, including rare species of hornbills (great Indian hornbill and the lesser risk wreathed hornbill), Old World babblers (Jerdon's babbler, marsh babbler) and weaver birds (the common baya weaver and the threatened Finn's weaver), thrushes (Hodgson's bushchat), Old World warblers (bristled grassbird).

Glimpses of Hoollongarpar Gibbon Sanctuary, Assam

During a primate survey in the late 1980s, Hollongapar Reserved Forest was identified as a potential wildlife sanctuary. In the Indian state of Assam's civil district of Jorhat is the Hollongapar Gibbon Sanctuary. On August 27, 1881, it was designated as a "Reserve Forest" (RF), and Hollong or *Dipterocarpus macrocarpus*, the major tree species, was used for its naming. It was regarded at the time as a "integral part" of the Patkai mountain range's foothill woods. The Government of Assam declared this entire Reserve Forest as the "Gibbon Wildlife Sanctuary" in 1997.

The sanctuary contains a diverse animal population and is home to the Bengal slow loris, the only nocturnal primate found in the northeastern Indian states, as well as the only apes in India, the western Hoolock hoolock. The rhesus macaque, northern pig-tailed macaque, eastern Assamese macaque, stump-tailed macaque, and capped langur are some other primates. Out of 15 species of primates found in India, 9 species of primate are found in the North Eastern India while 7 species are found in this sanctuary. The sanctuary is also home to Indian elephants, tigers, leopards, jungle cats, wild boar, three different species of civets, four different species of squirrels, and other other mammals. The park is known to be home to a variety of snake species and at least 219 different bird species.

The sanctuary is home to a wide variety of plants at every level of the canopy. Most of the *Dipterocarpus macrocarpus*, which have straight stems and reach heights of 12 to 30 m (39 to 98 feet), make up the upper canopy. The top canopy also contains Sam, Amari, Sopas, Bhelu, Udal, and Hingori species. The lower canopy

and ground layers are made up of a variety of evergreen plants and herbs. Report of the Institute visit was prepared by the participating students and submitted during practical examination.

GROUP MEMBERS

TEACHERS:

1. Sir. Hemen Biswas
2. Sri. Anirban Panday
3. Sri. Koustav Kundu

NON-TEACHING STAFF:

1. Sri. Pranay Barua

STUDENTS:

SL.	U.G. 1ST SEMESTER	P.G 1ST SEMESTER	P.G.3RD SEMESTER
1.	Subhajit Kumar Dutta	Arko Pratim Poddar	Samrat Roy Sarkar
2.	Sandip Sarkar	Pallab Das	Raj Jyoti Sarkar
3.	Subhajyoti Barman	Soumyadeep Das	Tousif Imran
4.	Rubia Khatun	Ambalika Das	Mrinmay Kundu
5.	Arghyashree Mohanta	Suchitra Sarkar	Subhadip Das
6.	Jhuma Parvin	Indrakshi Saha	Rinon Roy
7.	Soyeta Das	Ankita Sutradhar	Poulomi Roy
8.	Mistu Paul	SrabaniPramanik	Chyanika Debnath
9.	Aheli Dutta	Nabanita Ganguli	Mrinmayee Barma
10.	Monti Oraon	Debjani Saha	Ankita Gop
11.	Arpita Paul	Nipaban Das	Dattasree Dutta
12.	Doli Das	Barnali Talukdar	Shreyasi Das
13.	Momita Paul	Debarupa Datta	Tanushree Bhattacharya
14.	DidhitiBasak		Nilanjana Malakar
15.			Sayani Roy



Fig. 1: PG 4th semester students and teachers engage in educational excursion in Assam

Visit to Khagrabari Sericulture Composite Unit

Agriculture and agro-based industries play a crucial role in enhancing the rural economy of developing countries like India. Due to factors such as limited land availability, scarcity of cash, and agriculture being limited to one or two seasons in a year, villagers have sought out additional rural industries for support. As a result, sericulture has been adopted by villagers in regions where ecological conditions are favorable. This simultaneous adoption of sericulture alongside traditional agriculture aims to provide supplementary income and economic stability. From the visit to Khagrabari Sericulture Composite Unit students of 4th Semester learn about different types of silkworm, their life cycle, rearing of the silkworm, feeding habits and the final process of extraction of silk for commercial purpose. Report of the Institute visit was prepared by the participating students and submitted during examination.

Escorting Teachers

1. SatadalAdhikary, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College
2. Anirban Pandey, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College
3. Koustav Kundu, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College
4. Ajanta Datta Chattopadhyay, SACT, Post Graduate Department of Zoology, A. B. N. Seal College

List of Programme Course Students			
Female Students		Male Students	
Roll No.	Name with Age in Years	Roll No.	Name with Age in Years
F-032	ADITI SARKAR (18)	M-101	ARINDAM ROY (18)
F-83	PINKI DEBNATH (18)	M-158	PRANTIK DEBNATH (18)
F-109	SNEHA SINGH (18)	M-205	RAHUL KARJEE (18)
F-192	SHAYANI DEB (18)	M-133	ROHIT KUMAR SAH (18)
		M-129	SAYANTAN BISWAS (18)
		M-139	SHUBHAMOY BARMAN (18)
		M-075	SOUVIK SARKAR (18)
		M-059	SUBHANKAR DAS (18)
		M-202	SUBRATA BARMAN (18)
		M-069	SUBHAM ROY (18)
Total: 04		Total: 10	
Grand Total: 14			

List of Honours Course Students			
Female Students		Male Students	
Roll No.	Name with Age in Years	Roll No.	Name with Age in Years
F-15	PRINA LAMA (18)	M-20	ANISH DEY SARKAR (18)
F-22	RISHA DEY (18)	M-50	KINNAR SARKAR (18)
F-23	SOHINI BISWAS (18)	M-52	DEBARJUN ROY (18)
F-34	DHRITI DAS (18)		
F-42	NIKITA SARKAR (18)		
F-48	ANUSKA GHOSH DASTIDAR (18)		
F-51	DEBATREE CHATTERJEE (18)		
F-53	DISHA DAS (18)		
Total: 08		Total: 03	
Grand Total: 11			

Total Female Students: 12

Total Male Students: 13

Grand Total of Students: 25



Fig. 2: UG 4th Semester (Zoology Honours) students and teachers engage in sericulture institute visit

Visit to Rasamati Patlakhawa Forest: Rasamati patlakhawa located in the around 25 km distance from the Cooch Behar city. Students of Zoology Honours and Programme Course are engaged with a one day educational tour on 11/04/2023. The students also visited Chhat Singimari area during the excursion. The main objective of the tour was demonstration of basic equipment like cameras, Binoculars GPS etc. and monitoring of abundance of avian fauna through transect method.

The area is reach with avian fauna, several bird species like Green Bee Eater, Black Hooded Oriole, Barn Swallow, Jungle Babbler, Asian Pied Starling, Fly Catcher, Black Drongo, Red Vented Bulbul, Blue Throated Barbet, Purple Sunbird, Little Egret, Spotted Dove, Flame Back Woodpecker, Kubo, Common Myna etc. Species richness, evenness and abundance was measured using Shannon-Wiener Diversity index.

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

List of escorting teachers of the Department:

1. SRI HEMEN BISWAS, Assistant Professor, Post Graduate Department of Zoology
2. SRI SATADAL ADHIKARY, Assistant Professor, Post Graduate Department of Zoology
3. SRI ANIRBAN PANDEY, Assistant Professor, Post Graduate Department of Zoology
4. SRI KOUSTAV KUNDU, Assistant Professor, Post Graduate Department of Zoology
5. SMT. AJANTA DATTA CHATTOPADHYAY, SACT, Post Graduate Department of Zoology

List of Participating Students

<u>UG 6th Semester Students with their College Roll Nos. and Age in Years</u>			
Roll No.	Honours Course	Roll No.	Programme Course
F-013	Nabila Farjana Ahamed (20)	F-060	Haimanti Roy (20)
F-023	Achal Tirkey (20)	F-127	Rehenaz Khandakar (20)
F-038	Pameli Roy (20)	F-049	Priya Mandal (20)
F-041	Ananya Ghosh (20)	F-081	Shreya Sarkar (20)
F-043	Chandrima Roy (20)	F-029	Lapita Adhikary (20)
F-053	Nirmita Saha (20)	F-072	Arpita Dhar (20)
M-014	Subhrajyoti Kisor Sen (20)	F-015	Purnima Roy (20)
M-037	Layek Islam (20)	M-056	Sourav Paul (20)
M-047	Abhijit Barman (20)	M-172	Sayanta Dutta (20)
M-051	Shyam Sundar Mandal (20)	M-043	Koushik Basak (20)
M-054	Shankha Das (20)	M-105	Saikat Kr. Roy (20)
M-055	Subham Saha (20)	M-097	Raj Ishore (20)
		M-022	Shibaji Roy Mandal (20)
		M-021	Bibhas Roy (20)
		M-214	Pronoy Barman (20)
		M-091	Joy Basak (20)
		M-068	Arijit Raj Paul (20)
		M-207	Anadilochon Roy (20)

		M-099	Kushal Debnath (20)
		M-030	Chaitannya Adhikary (20)
		M-002	Koushik Barman (20)
Total: 12		Total: 21	
Grand Total: 33			

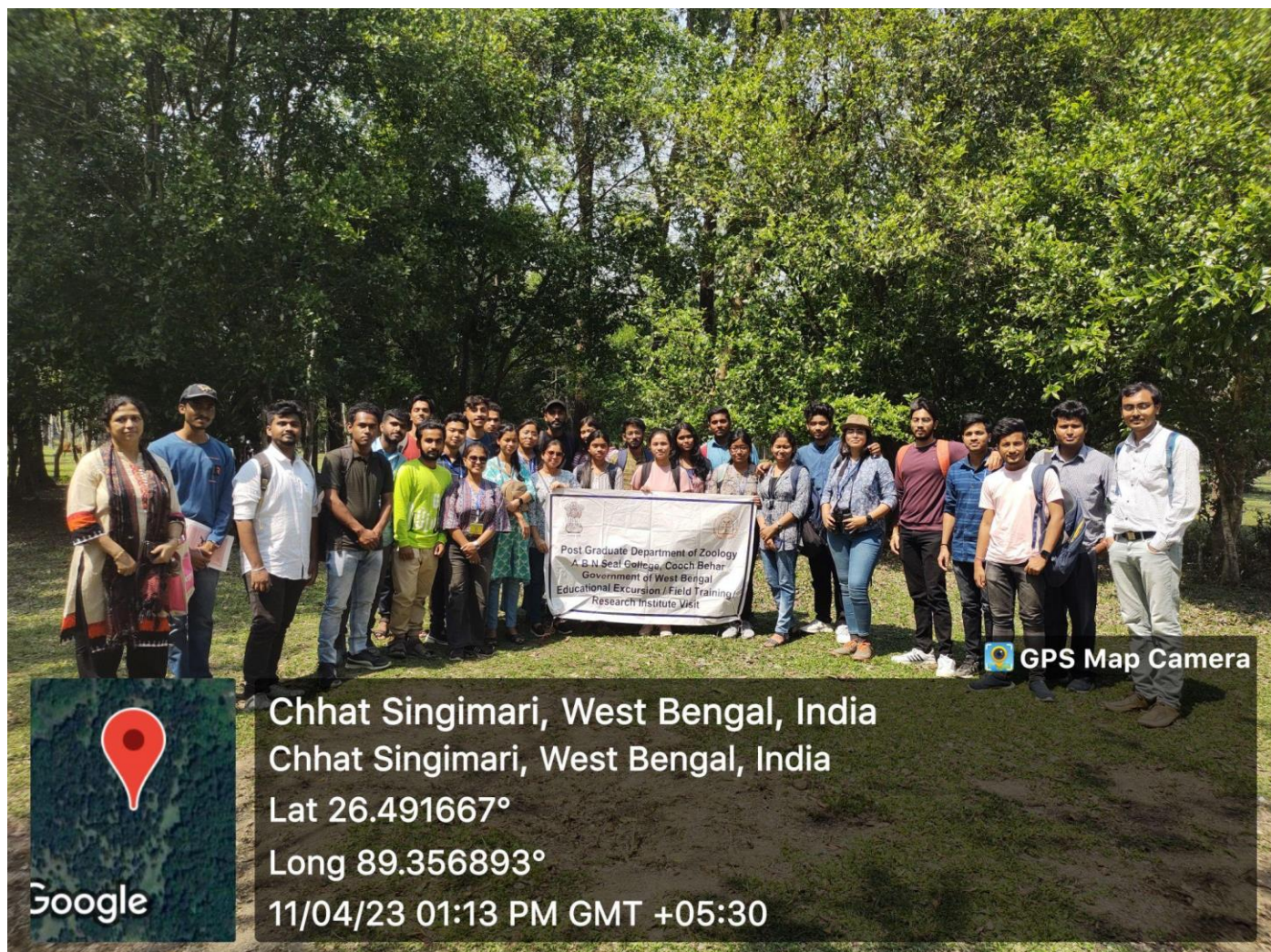


Fig. 3: UG 6th Semester (Zoology Honours and Programme) students and teachers engage in excursion.

Institute Visit to Glenmark Pharmaceuticals, Industrial Growth Centre, Ranipool: Glenmark Pharmaceutical company is one of the most leading pharmaceutical company all over the world. PG CBCS 4th Semester students having DCE 4 B (Molecular cytology and Genetics) were engaged in the institute visit to the Ranipool unit of the Glenmark Pharmaceutical company. Main objective of the visit is to fill the gap between the theoretical and practical part of study and to establish the relation between the industrial and academic sector. They attend a seminar about drug production and the effects of drugs in relation to pharmacogenetics. On the second day drug production unit was visited by the student.



Fig. 4 : Tour Team in Glenmark pharmaceutical Sikkim plant

Visit to Sikkim State Council of Science and Technology Gangtok Sikkim: In the third & fourth day of the tour, student visited the Vigyan Bhawan, Sikkim and attend a seminar on “Antagonistic effect of the rhizosphere bacteria isolated from *Zingiber officinale* against *Pythium* soft rot from different parts of Sikkim” and plant based barcoding sequencing, evolutionary processes etc.

Various laboratory instruments like UV Transilluminator, Rotospin, Digital pH meter, nutrient analysis photometer, vortex mixture, bench top gel documentation, cooling centrifuge, rotatory evaporator were introduced to them. Report of the Institute visit was prepared by the participating students and submitted during examination.



Fig 5: Students with the escorting teacher at Vigyan Bhawan Sikkim

List of escorting teacher

1. Dr, Debojyoti Dutta Associate Professor, Post Graduate Department of Zoology, A. B. N. Seal College

List of PG CBCS 4th Semester Students with age			
Female Students		Male Students	
Roll No.	Name with Age in Years	Roll No.	Name with Age in Years
F-45	Poulomi Roy (22)	M- 103	Rinon Roy (22)
F-113	Dattasree Dutta (22)	M- 112	Mrinmay kundu (22)
F-118	Tanusree Bhattacharjee (22)	M- 120	Rajjyoti Sarkar (22)
		M- 130	Subhadip Das (22)
Total: 03		Total: 04	
Grand Total: 7			

Institute Visit to Uttar Banga Krishi Viswavidyalaya: UBKV is about 12 km from Cooch Behar town, and is an Institute of immense prestige. PG CBCS 4th Semester students having DCE 4 F (Entomology: Insect Pest and Management) were engaged in the institute visit to the Agricultural Entomology Department, UVKV. on 03/05/2023. Main objective of the visit was to study about the various insect pests and their management.

They also visited molecular biology laboratory to learn about the various tools and techniques used in molecular taxonomy of insects.

Report of the Institute visit was prepared by the participating students and submitted during examination.

List of escorting teachers

1. SatadalAdhikary, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College
2. Anirban Pandey, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College
3. Koustav Kundu, Assistant Professor, Post Graduate Department of Zoology, A. B. N. Seal College

List of PG CBCS 4th Semester Students with age			
Female Students		Male Students	
Roll No.	Name with Age in Years	Roll No.	Name with Age in Years
F-68	CHAYANIKA DEBNATH (22)	M- 60	SAMRAT ROY SARKAR (22)
F-74	MRINMAYEE BARMA (22)	M- 119	TOUSIF IMRAN (22)
F-109	ANKITA GOP (22)		
F-116	SHREYASHI DAS (22)		
F-132	NILANJANA MALAKAR (22)		
F-136	SAYANI ROY (22)		
Total: 06		Total: 02	
Grand Total: 08			



Fig 6: PG 4th Semester students, escorting teachers and resource persons at agricultural entomology department UBKV.