



Report on

Promoting Bird Tourism in Rangbhang Valley: Birding Guide Training

Date: 27th and 28th Dec, 2023
Venue: Rangbhang Valley, Darjeeling



Prepared by

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1. BACKGROUND

Darjeeling Himalaya is known to harbour about 50% of all birds found in India, even though the region only contributes to <0.0001% of total area of India. This makes Darjeeling a hotspot of avian diversity, worthy of conservation attention. With a major part of the landscape being outside protected areas, local communities have an important role to play in the conservation of birds in Darjeeling. Being regarded as one of the most beautiful hill stations in India, Darjeeling is one of the leading tourist destinations in India. In recent years, numerous small, yet beautiful villages have emerged as popular tourist destinations. Bird tourism has flourished in a few local sites in Darjeeling, while this section of tourism is still unexplored in most areas. Since, bird tourism generates birding interest among the local communities, promoting bird tourism in some key sites can be crucial to conserving birds in the everchanging human-dominated landscapes of Darjeeling Himalaya. Darjeeling is also very rich in butterfly diversity, with the Darjeeling-Sikkim Himalaya harboring about 48% of total butterflies found in India. Tourism to unexplored and underrated landscapes of Darjeeling can be a boon, if opportunities which could benefit the landscape through tourism are understood and honed. Additionally, recent studies in the tea landscapes of Darjeeling-Sikkim Himalaya show that this management system provides important habitats for a number of biodiversity components including birds.

With this outlook, as part of the Rufford Small Grants funded project “Conserving and monitoring woodpeckers and other birds in the differently-managed forests of Darjeeling, Eastern Himalaya, India”, ATREE organised a two-day long intensive Birding Guide Training, with an objective to promote bird tourism in Rangbhang Valley, Darjeeling.

1. OBJECTIVES OF THE TRAINING

1. To train the local guides on identification of birds through theory and field sessions
2. To apprise the local guides about their roles and responsibilities as local nature guides
3. To train potential bird guides on the use of web-based and mobile applications to solicit their participation in future documentation of biodiversity as citizen scientists.

2. TRAINING ACTIVITIES

- **Total number of participants:** 22
- **Total number of trainee guides:** 14 (Annexure II)
- **Resource Persons:** 3 in number
 - Dr. Saibal Sengupta, St. Robert's School Nature Club
 - Mr. Sanjeeb Pradhan, Rimbick Nature Guide Association
 - Mr. Aditya Pradhan, ATREE

a) Day 1 (27-12-2023)

Inaugural Session

The training commenced with a welcome address from Mr. Aditya Pradhan of ATREE, followed by introductions from all participants, including the resource persons. Mr. Pradhan emphasized the significance of the training for the landscape. He then outlined the training objectives, urging participants to actively engage and maintain decorum throughout the sessions.

Technical Session I

Biogeography of Darjeeling Himalaya

Dr. Saibal Sengupta, representing the St. Robert's School Nature Club, delivered a presentation on the faunal diversity of Darjeeling Hills, providing insights into the importance of the Kangchendzonga landscape. He highlighted the significance of flagship species in different protected areas of Darjeeling. Following the presentation, an interactive session allowed participants to engage with Dr. Sengupta.

Pre-test

After the inaugural session, participants underwent a pre-test. They were presented with images of 10 common birds in the region and asked to identify them using Nepali local names or English common names. Additionally, participants were queried about any prior bird identification or birding guide training. The pre-test results revealed that 10 participants could identify at least 6 birds by their local names, and 2 participants successfully identified 8 birds.

Citizen Science in Biodiversity Documentation focusing on iNaturalist

Mr. Aditya Pradhan from ATREE led a session introducing participants to the concept of Citizen Science (CS), where local community members can contribute to science by sharing observations on platforms like iNaturalist. He emphasized the crucial role of community participation in biodiversity documentation projects. Practical tips on photographing insects with camera phones were provided, and a video demonstrated the process of registering and uploading observations on iNaturalist. The session concluded with participants downloading the app, registering as contributing citizen scientists, and also installing the Merlin Bird ID application on their phones for the upcoming field session.

Technical Session II

How to do identify birds in the field?

Dr. Saibal Sengupta of St. Robert's School Nature Club delivered a presentation on Bird Watching, Bird Identification, and Conservation. The session began with a definition of birds, followed by an exploration of various bird parts. Dr. Sengupta then discussed techniques for accurately identifying birds based on size, colors, and markings, along with guidance on note-taking in the field.

How to do birding and bird identification?

Dr. Saibal Sengupta continued his presentation from Technical Session II, emphasizing the importance of closely observing birds for identification. He discussed how similar-looking species can be differentiated based on habits and flight patterns. The basics of bird watching, essential equipment for beginners, and the significance of keen observation skills were highlighted. Dr. Sengupta provided tips on recording observations, including time, location, weather, number of individuals, activity, and habitat. He also touched upon sexual dimorphism as a helpful tool for distinguishing between male and female birds of the same species. The presentation concluded with insights into the role of bird watching in local habitat conservation and the ecological significance of birds. The session ended with an interactive segment where participants had the opportunity to clarify their doubts about technical aspects of bird identification.

Field Session I

The day kicked off with a field session around 3 pm, where participants were divided into five groups. Each group was tasked with taking notes and creating a checklist of encountered birds. Facilitated by three resource persons, the participants, armed with the Merlin Bird ID App on

their phones, embarked on a 2km trail towards *Gopaldhara Tea Estate*. Along the way, they observed birds, making detailed notes and using the app for identification through reference photos and bird calls. With assistance from the resource persons, participants also learned the English names of various bird groups, enhancing their proficiency with the Bird Identification app. The session spanned 2 hours.

Data Collation and debriefing

The session concluded with participants compiling a checklist of all the birds encountered during the field session. Each participant contributed by writing down the names of the birds they observed. The data collation occurred on a chart paper, with participants continuously adding to the list until it was comprehensive (refer to Annexure III). This interactive session involved identifying birds using local Nepali names and cross-referencing field notes with the assistance of resource persons. In total, 13 bird species were recorded (see Annexure III).

b) Day 2 (28-12-2023)

Field Session II

The day commenced with a field session around 7 am, during which participants, accompanied by resource persons, observed birds in the *GTA park in Tabakoshi*, following a pre-existing trail. The session extended for a duration of 3 hours.

Data Collation and debriefing

The session wrapped up with participants generating a checklist of birds encountered during the field session. Each participant contributed by listing the names of identified birds, utilizing local Nepali names and cross-referencing field notes with resource persons. The data collation took place on a whiteboard, leading to the identification of 13 bird species (refer to Annexure III).

Technical Session III

Introduction to butterflies, their importance and some common species of Darjeeling

Mr. Aditya Pradhan initiated the session by showcasing pictures of butterflies and discussing the rich diversity of these insects in Darjeeling. He proceeded to define butterflies and explained how to differentiate them from moths. The session delved into the behavior of butterflies in the wild, their habits, and preferred habitats. Mr. Pradhan detailed the six different butterfly families, highlighting distinctive features of each group. Illustrating with examples, he provided insights into the butterflies one might encounter at various elevation zones. The

session concluded with a discussion on potential threats to butterflies in the Himalaya.

Field Session III

Following the conclusion of the third technical session, the final field session commenced. Participants were divided into four groups, each tasked with independently observing birds and photographing butterflies. Resource persons provided guidance during this session. The field site chosen for this activity was the *Tabakoshi-Mirik road*.

Data Collation and debriefing

The session concluded with participants compiling a checklist of all the birds encountered during the field session. They were also instructed to upload their photos on iNaturalist. A total of 4 bird species were recorded, and no new species were added to the list (refer to Annexure III). The final checklist, encompassing 27 bird species, included noteworthy entries such as two species of woodpeckers: Greater Yellownape Woodpecker *Chrysophlegma flavinucha* and Grey-headed Woodpecker *Picus canus*, and two species of kingfishers Common Kingfisher *Alcedo atthis* and White-throated Kingfisher *Halcyon smyrnensis* (which is the state bird of West Bengal).

Technical Session IV

Important flora of lowlands

The concluding technical session, led by Dr. Saibal Sengupta, began with a discussion on the critical role of flora for various faunal components, shaping the habitat structure for animals, including birds. Dr. Sengupta proceeded to explain the distinctions between trees, shrubs, and herbs. Using photographs, he highlighted key identifying characteristics and provided the Nepali local names for various flora. The presentation covered details of 38 tree species, 18 shrubs, 3 climbers, 2 palms, and 4 bamboo species commonly found in the lowlands of Darjeeling.

How to be an effective nature guide?

Mr. Sanjeeb Pradhan from Rimbick Guide Association delivered a talk on Guiding Skills, beginning with a definition of a guide and then discussing the essential skills required to excel in the role of a Nature Guide. He highlighted the various roles and responsibilities a guide must undertake, including handling emergencies during birding trips or treks. Emphasizing effective communication and patience, Mr. Pradhan drew from his experiences as a Nature Guide since 2008, illustrating how this profession has shaped his perspective on life. He concluded by

stressing that while earning money is important, guides should constantly strive to acquire knowledge. The session concluded with an interactive segment where participants sought advice on developing attractive tour packages and earning from them, which Mr. Sanjeeb Pradhan addressed in detail.

Concluding Session

Post-test

After the conclusion of all technical and field sessions, participants were presented with pictures of the same 10 common birds found in the region, as shown during the pre-test. They were then asked to identify these birds by their English common names. The post-test results indicated that 5 out of 14 participants could identify more than 5 species, 4 participants identified more than 6 species, and 2 participants could identify 9 species by their English common names.

Feedback and debriefing

Around 5 pm in the evening, Mr. Aditya Pradhan conducted a debriefing session, which was followed by feedback from all participants regarding the training. The consensus among participants was that they felt fortunate to have learned about the opportunities in bird watching and bird tourism in the Rangbhang Valley. They expressed their realization of the benefits of bird conservation and pledged to convey this awareness to their friends and family in their respective villages. To foster continued communication and resource sharing, a WhatsApp group named 'Rangbhang Valley Birding Guide Training' was created even after the formal conclusion of the training.

TRAINING OUTCOMES

- I. I. The training functioned as an awareness workshop for 22 participants, operating as an open platform where local community members were invited to join the trainee guides for any of the technical sessions.
- II. 14 trainee guides from 3 tea estates and 1 forest village were rigorously trained on bird identification in Makaibari, Darjeeling, and were made aware of the different components of biodiversity in Darjeeling, including mammals, birds, butterflies, flowers and trees.
- III. 14 trainee guides acquired valuable understanding on how to become a good nature guide.
- IV. A preliminary checklist of 38 bird species in Makaibari was prepared.

- V. 14 trainee guides from the local community registered and have started contributing to iNaturalist.
- VI. A common platform (on Whatsapp) was created to share information and knowledge on birds of the region, including new sighting records and checklists. This is expected to keep alive the interest of birding among the local communities.


Annexure I: Programme

Promoting Bird Tourism in Rangbhang Valley: Birding Guide Training Venue: GTA Guest House, Tabakoshi, Gopaldhara T.E., Darjeeling 27th - 28th December 2023		
DAY 0 (26th December 2023)		
TIME	ACTIVITIES	LEAD
0500PM	Arrival of Resource persons at Tabakoshi on Day 1 (Aditya and Saibal)	
DAY 1 (27th December 2023)		
0830-0930 AM	Registration of Participants	Aditya Pradhan, ATREE
0930-0945AM	Introductions and Welcome	Aditya Pradhan, ATREE
0945-1000AM	Objective of the training	Aditya Pradhan, ATREE
1000-1030AM	Pre-test of participants about knowledge on bird identification	Aditya Pradhan, ATREE
1030AM-1200 PM	How to do birding and bird identification?	Dr. Saibal Sengupta, SRS Nature Club
1200-0100 PM	How to be an effective nature guide?	Sanjeeb Pradhan, Rimbick Nature Guide Association
0100-0200 PM	Lunch	
0200-0230PM	Important flora of lowland forests of Darjeeling	Dr. Saibal Sengupta, SRS Nature Club
0230-0300PM	Interactive Session	Sanjeeb Pradhan, Rimbick Nature Guide Association
0300-0315PM	Tea Break	
0315-0330PM	Field Visit Preparation: Dos and Don'ts-ethics in the forest	Aditya Pradhan, ATREE
0330-0600 PM	Field Visit-Birding	Resource persons
0530-0600 PM	Data Collation and Debriefing	Resource persons
DAY 2 (28th December 2023)		
0630-0830AM	Field Visit for guides	Resource persons assisted
0830-0900 AM	Breakfast	
0900-0930 AM	Citizen Science in Biodiversity Documentation focusing on iNaturalist	Aditya Pradhan, ATREE
0930-1000 AM	Registering on iNat etc and how to use it?	Aditya Pradhan, ATREE
1015-1100 AM	Biodiversity of tea landscapes	Dr. Saibal Sengupta, SRS Nature Club
1100-1145 AM	Bird diversity of Darjeeling and its importance	Aditya Pradhan ATREE
1145 AM-1230 PM	Introduction to butterflies, their importance and some common species of Darjeeling	Aditya Pradhan, ATREE
1230-0100 PM	Interactive Session	Resource persons
0100-0200 PM	Lunch	
0300-0500 PM	Field Visit for birding	Resource persons
0500-0530 PM	Data Collation and Post-Training Test	Resource persons
0530-0600 PM	Remarks from Participants and Resource Persons	ATREE
0600-0615 PM	Certificate Distribution for Training participants	Aditya Pradhan, ATREE
0615-0630 PM	Vote of Thanks	Aditya Pradhan, ATREE
Day 3 (29th December 2023)		
0800 AM	Departure of resource persons	

Annexure II: Sign-up sheet

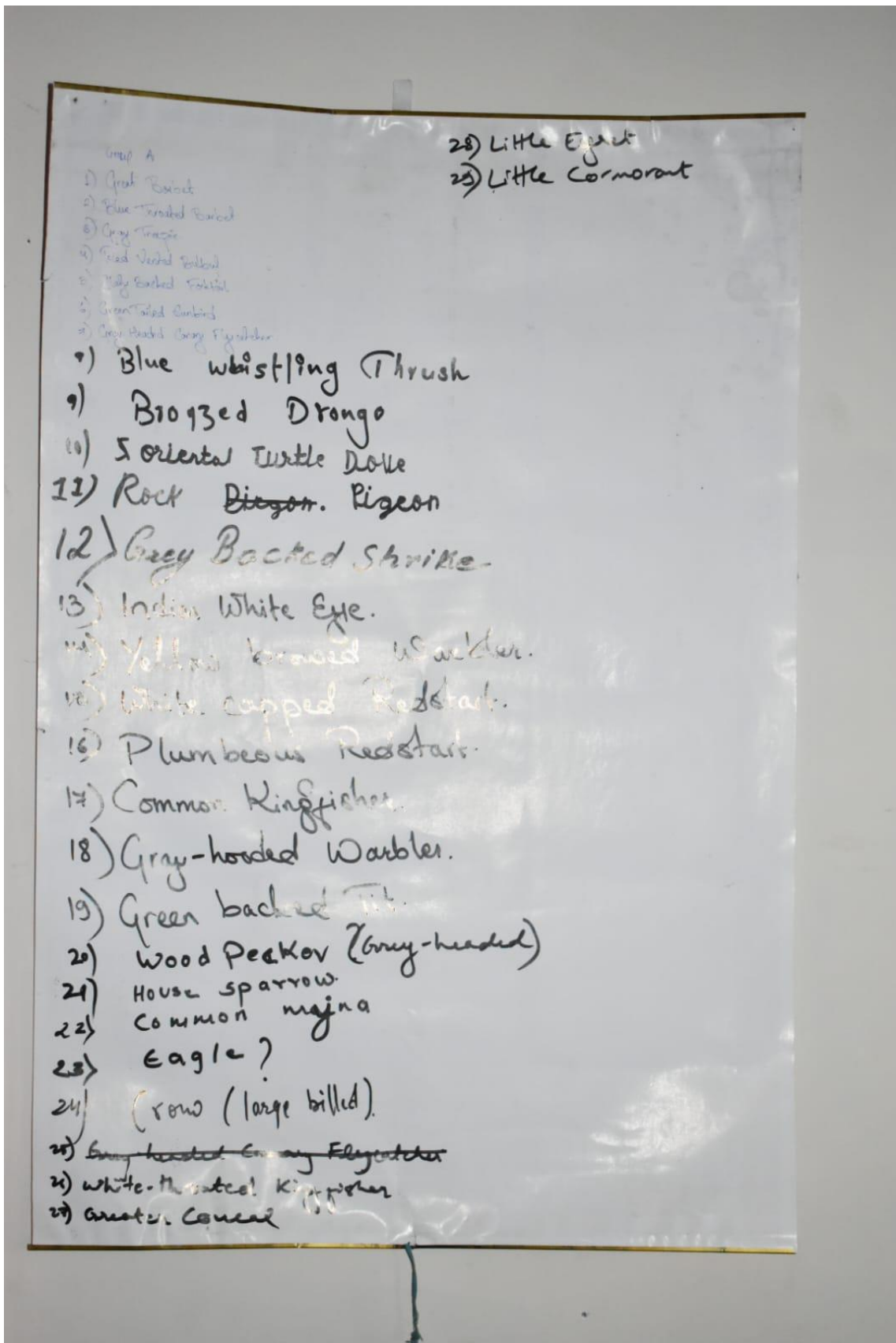
Promoting Bird Tourism in Rangbong Valley
27-28 December 2023

: Bird Guide Training



Sl. No	Name of the Participant (Guides)	Day 1-Session			Day 2-Session		
		1	2	3	1	2	3
1	Uphal Ram	Uphal Ram	Uphal Ram	Uphal Ram	Uphal Ram	Uphal Ram	
2	Aswin Khatri	Aswin Khatri	Aswin Khatri	Aswin Khatri	Aswin Khatri	Aswin Khatri	
3	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	
4	Saket Dasgupta	Saket Dasgupta	Saket Dasgupta	Saket Dasgupta	Saket Dasgupta	Saket Dasgupta	
5	RAJA SUBBA	Rajendra	Rajendra	Rajendra	Rajendra	Rajendra	
6	Rachan Yolme	Rachan Yolme	Rachan Yolme	Rachan Yolme	Rachan Yolme	Rachan Yolme	
7	Dawalawu Yalmo	Dawalawu Yalmo	Dawalawu Yalmo	Dawalawu Yalmo	Dawalawu Yalmo	Dawalawu Yalmo	
8	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	
9	Rita Pradhan	Rita Pradhan	Rita Pradhan	Rita Pradhan	Rita Pradhan	Rita Pradhan	
10	Uma Lamsa Kshama	Uma Lamsa Kshama	Uma Lamsa Kshama	Uma Lamsa Kshama	Uma Lamsa Kshama	Uma Lamsa Kshama	
11	Yashu Kshama	Yashu Kshama	Yashu Kshama	Yashu Kshama	Yashu Kshama	Yashu Kshama	
12	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	
13	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	
14	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	Balwant Rai	
15	Niva Galbu Sengpa	Niva Galbu Sengpa	Niva Galbu Sengpa	Niva Galbu Sengpa	Niva Galbu Sengpa	Niva Galbu Sengpa	
16	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	
17	Ramesh Sengpa	Ramesh Sengpa	Ramesh Sengpa	Ramesh Sengpa	Ramesh Sengpa	Ramesh Sengpa	
18	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	Bikram Dangi	
19	Asyan Rai	Asyan Rai	Asyan Rai	Asyan Rai	Asyan Rai	Asyan Rai	
20	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	
21	Inamith Lepcha	Inamith Lepcha	Inamith Lepcha	Inamith Lepcha	Inamith Lepcha	Inamith Lepcha	
22	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	Prasadi Redda	

Annexure III: Checklist of birds observed and identified by the participant



Annexure IV: Checklist of birds observed and identified by the participants with scientific and local names.

SN	Common Name	Scientific Name	Local Name (Nepali)
1	Blue-throated Barbet	<i>Psilopogon asiaticus</i>	Katurka
2	Blue Whistling Thrush	<i>Myophonus caeruleus</i>	Kalchura
3	Bronzed Drongo	<i>Dicrurus aeneus</i>	Chibey
4	Common Kingfisher	<i>Alcedo atthis</i>	
5	Common Myna	<i>Acridotheres tristis</i>	Ruppee
6	Eurasian Tree Sparrow	<i>Passer montanus</i>	Bhangera
7	Great Barbet	<i>Psilopogon virens</i>	Nyaul
8	Greater Coucal	<i>Centropus sinensis</i>	
9	Greater Yellownappe	<i>Chrysophlegma flavinucha</i>	Lachey
10	Green-backed Tit	<i>Parus monticolus</i>	Chi-chin kotay
11	Green-tailed Sunbird	<i>Aethopyga nipalensis</i>	Balchey
12	Grey Treepie	<i>Dendrocitta formosae</i>	Kokolay
13	Grey-backed Shrike	<i>Lanius tephronotus</i>	Bhadrayo
14	Grey-headed Canary Flycatcher	<i>Culicicapa ceylonensis</i>	
15	Grey-headed Woodpecker	<i>Picus canus</i>	Lachey
16	Grey-hooded Warbler	<i>Phylloscopus xanthoschistos</i>	Fista
17	Large-billed Crow	<i>Corvus macrorhynchos</i>	Kaag
18	Little Cormorant	<i>Microcarbo niger</i>	Pani Kaag
19	Little Egret	<i>Egretta garzetta</i>	
20	Oriental Turtle Dove	<i>Streptopelia orientalis</i>	Tavey Dhukur
21	Oriental White-eye	<i>Zosterops palpebrosus</i>	
22	Plumbeous Redstart	<i>Phoenicurus fuliginosus</i>	
23	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Kali Jureli
24	Rock Pigeon	<i>Columba livia</i>	Parewa
25	Slaty-backed Forktail	<i>Enicurus schistaceus</i>	Dhobini
26	White-capped Water Redstart	<i>Phoenicurus leucocephalus</i>	
27	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	

Annexure V: Photographs



Mr. Aditya Pradhan delivering the welcome address



Dr. Saibal Sengupta SRS Nature Club delivering a talk on the biogeography of Darjeeling during
Technical Session I



Aditya Pradhan showing photos of birds during pre-test



Participants answering questions during the pre-test



Dr. Saibal Sengupta, presenting a talk on basics of Bird Identification during the Technical Session II



Participants interacting with a resource person during Field Session I



Participants observing birds during Field Session I



Participants observing birds during Field Session I



Participants learning how to use binoculars during field session I



Participants moving along the trail during Field Session I



Participants observing birds, taking notes and using Merlin Bird ID app during Field Session I



Participants preparing a checklist of birds observed during Field Session I



Participants observing birds during Field Session II



Participants identifying birds in the field using Merlin Bird Id App during Field Session II



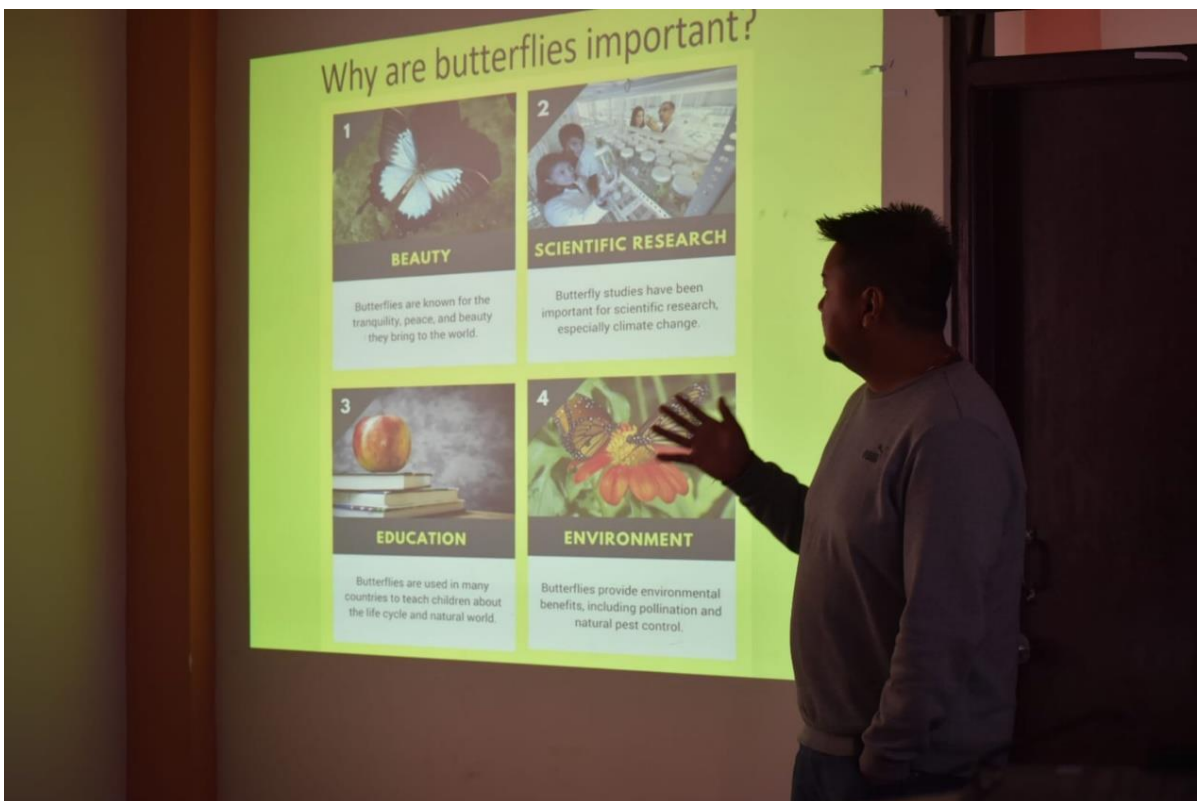
Participants in action along the trail during Field Session II



Participants observing birds during the Field Session I



Participants preparing checklist of birds after Field Session II



Aditya Pradhan delivering a talk on basics of butterfly watching during Technical Session III



Participants moving along the trail during Field Session III



Participants observing birds during field session III



Participants presenting their group work after the field session



Dr. Saibal Sengupta presenting a talk on Lowland flora of the Darjeeling Hills during the Technical Session IV



Mr. Sanjeev Pradhan, Rimbick Nature Guide Association delivering a talk on Guiding Skills during the Technical Session IV



A participant interacting with the Mr. Sanjeev Pradhan during the Technical Session IV



A participant talking about her experience during the two-day training



Participants with their certificates and the checklist after successfully completing the training