



## Report on

# Promoting Bird Tourism in Makaibari T.E.: Birding Guide Training

Date: 23rd and 24th Dec, 2023  
Venue: Makaibari T.E., 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 ever-changing 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 Makaibari Tea Estate, Darjeeling.

## 2. OBJECTIVES OF THE TRAINING

1. To train the local guides on the 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:** 35
- **Total number of trainee guides:** 21 (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 (23-12-2023)

#### *Inaugural Session*

The training began with a welcome address by Mr. Aditya Pradhan, ATREE followed by a round of introduction from all participants including the resource people. This was followed by an address by Mr. Subu Rai, Social Worker and co-organizer of the training. He talked about why this training is important for the landscape. Mr. Aditya Pradhan, ATREE then delivered the objectives of the training and urged the participants to maintain decorum and participate actively in all the sessions.

*Pre-test*



The inaugural session was followed by a pre-test for the participants, where the participants were shown pictures of 10 common birds found in the region, and they were asked to identify them by their Nepali local names or English common names. They were also asked to mention if they have had any prior bird identification or birding-guide training. The results of the pre-test showed that 9 of the 21 participants could identify at least 6 birds by their local names, while 2 participants could identify all 8 birds.

### ***Technical Session I***

#### *Biogeography of Darjeeling Himalaya*

Dr. Saibal Sengupta from St. Robert's School Nature Club gave a presentation on the faunal diversity of Darjeeling Hills with a brief on the significance of the Kangchendzonga landscape. During this talk, he spoke about the importance of flagship species in different protected areas of Darjeeling. This was followed by an interactive session where participants and the resource person interacted.

#### *Citizen Science in Biodiversity Documentation focusing on iNaturalist*

Mr. Aditya Pradhan, ATREE led this session. He first introduced the participants to the concept of Citizen Science (CS) where a local community member has the power to contribute to science by sharing his/her observations on a common online platform like iNaturalist. He then talked about how the participation of local community members in biodiversity documentation has proved to be crucial for the success of larger biodiversity documentation projects. He also gave tips on how to photograph insects using camera phones. He then showed a video of how one can register and upload observations on iNaturalist. The session ended with the participants downloading the app and registering as contributing citizen scientists. All the participants were also asked to download the Merlin Bird ID application on their phones for the field session.

### ***Technical Session II***

#### *How to be an effective nature guide?*

Mr. Sanjeeb Pradhan from Rimbick Guide Association gave a talk on Guiding Skills. He started his talk by defining a Guide and then moved on to what skills are required to become a good Nature Guide. He talked about what are the roles and responsibilities of a guide. He emphasized that a guide should be able to take any role in case of emergencies during a birding trip or an organized trek. He talked about how a guide needs to communicate well with his clients and be patient during difficult times. He then shared his experiences of working as a Nature Guide since 2008, and how this profession has changed his outlook towards life. He ended his talk by stating that “*earning money isn't everything, and a guide should always strive to gain as much knowledge as possible.*” This was followed by an interactive session where the participants asked for suggestions regarding how one can develop an attractive tour package, and how a guide can earn from it. This was addressed in detail by Mr. Sanjeeb Pradhan.

#### *How to identify birds in the field?*

Dr. Saibal Sengupta from St. Robert's School Nature Club gave a presentation on Bird Watching, Bird Identification and Conservation. He started the presentation by defining a bird and then moved on to describe different parts of birds. He then talked about how to identify a bird correctly by size, colours, and markings, and how to take notes in the field.

### ***Field Session I***

Regrettably, the planned session had to be cancelled owing to it being a shortened day. Furthermore, participants, who had traversed from remote villages, found themselves obliged to commence their journey back on foot. The cancellation was imperative due to the prevailing logistical limitations.



Consequently, it was determined that a more extended field session in the morning would be more conducive to the circumstances.

**b) Day 2 (24-12-2023)**

***Field Session II***

The day started with a field session at around 7 am, where participants were divided into five groups and each group was asked to take notes and prepare a checklist of birds they encountered. The groups were facilitated by three resource people. The participants along with the resource persons started towards *Naya Kaman* following a 2km long trail. On the way, the participants observed birds and made notes on each of their observations. During this session, the participants used the Merlin Bird ID App on their phones to identify birds using reference photos and bird calls. With the help of the resource persons, the participants learned the English names of a few bird groups, which helped them to navigate the Bird Identification app on their phones. The session lasted 4 hrs.

***Data Collation and debriefing***

The session ended with participants preparing a checklist of all the birds encountered during the field session. Each of the participants was invited to write the names of all the birds that they encountered during the field session. Data collation was done on a whiteboard, where the participants kept adding to the list until the list was complete (Annexure III). This was an interactive session and birds were identified by local Nepali names and by comparing field notes with the help of resource persons. 13 species of birds were recorded (Annexure III).

***Technical Session III***

***How to do birding and bird identification?***

This session began with a talk by Dr. Saibal Sengupta, where he continued his presentation from Technical Session II. He then started by talking about the importance of observing birds as closely as possible and how similar-looking species can be identified based on their habits, and flight patterns. He talked about the basics of bird watching, and what equipment is required as a beginner. He also emphasized that ears and eyes are the best equipment that a person can possess as a bird watcher. He then gave tips on how to record observations by noting time, location, weather, number of individuals, activity, and habitat. He also talked about sexual dimorphism, which can be helpful to distinguish male and female birds of the same species. He talked about the role of bird watching in the conservation of habitats at the local level, and the ecological role of birds. He ended his presentation by showcasing some beautiful birds of Darjeeling. This was followed by an interactive session where the participants cleared their doubts about technicalities associated with bird identification.

***Bird diversity of Darjeeling and its importance***

Mr. Aditya Pradhan started the session by talking about the diversity of birds in Darjeeling, and how Darjeeling even after being a very small region in India, hosts 50% of all birds found in India. He stated that the majority of birds in Darjeeling are residents, and they mostly migrate only altitudinally. He also showed examples of birds that are long-distance migrants and visit Darjeeling along their migratory routes. He talked about Darjeeling being an integral part of the Eastern Himalaya and hosting 9 of the 19 Eastern Himalaya endemic birds. He then described and showed pictures of each of the 9 species of birds, also talking about its IUCN status. Following this, he talked about the rich woodpecker diversity in Darjeeling as it hosts 69% of all woodpeckers found in India. He described the morphological and behavioural characteristics of woodpeckers and highlighted the ecological role of woodpeckers and the services they provide. He then showed pictures of 12 common woodpeckers found in Darjeeling and



described their identifying characters.

#### ***Technical Session IV***

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

Mr Aditya Pradhan started the session by showing pictures of butterflies and talking about the diversity of butterflies in Darjeeling. He then defined a butterfly and talked about how one can differentiate between a butterfly and a moth. He talked about how butterflies behave in the wild, their habits and potential habitats. He then talked about the six different families to which they belong, stating the identifying features of each of these groups. He showed examples of which butterflies one can encounter at different elevation zones. He ended his session by discussing the potential threats to butterflies in the Himalayas.

#### ***Field Session III***

After the third technical session, the final field session began. The participants were divided into four groups and each of the groups were asked to observe birds independently and photograph butterflies. The session was guided by resource people. The field site for this session was Kodobari.

##### *Data Collation and debriefing*

The session ended with participants preparing a checklist of all the birds encountered during the field session. Each of the participants was invited to write the names of all the birds that they encountered during the field session. Data collation was done on a whiteboard, where the participants kept adding to the list until the list was complete. This was an interactive session and birds were identified by local Nepali names and by comparing field notes with the help of resource persons. 15 species of birds were recorded while only 2 birds were added to the list prepared during the first field session (Annexure III). The final checklist of birds prepared during the training session had 43 species. Some notable and uncommon species recorded during the training were Banded Bay Cuckoo *Cacomantis sonnerati*, Greater Racket-tailed Drongo *Dicrurus paradiseus* and Greater Coucal *Centropus sinensis*, along with three species of woodpeckers, namely Greater Yellownape Woodpecker *Chrysophlegma flavinucha*, Grey-headed Woodpecker *Picus canus*, and Greater Flameback *Chrysocolaptes guttacristatus*.

#### ***Technical Session V***

##### *Important flora of lowlands*

The final technical session was led by Dr Saibal Sengupta, where he started the session by discussing the importance of flora for all faunal components, as they determine the habitat structure of all animals including birds. He then talked about the difference between a tree, a shrub and an herb. He then proceeded by showing photographs and discussing key identifying characters and their Nepali local names. The presentation had details of 38 tree species, 18 shrubs, 3 climbers, 2 palms and 4 bamboo species that are commonly found in the lowlands of Darjeeling.

#### ***Concluding Session***

##### *Post-test*

After the completion of all the technical and field sessions participants were shown pictures of the same 10 common birds found in the region (as shown during the pre-test), and they were asked to identify them by their English common names. The results of the post-test showed that 6 out of 21 participants could identify more than 5 species, 2 participants identified more than 6 species, while 10 participants could identify 4 species by their English common names.



### *Feedback and debriefing*

At around 6 pm in the evening, a de-briefing was done by Mr Aditya Pradhan, which was followed by feedback from all participants about the training. Everyone suggested that they were lucky to get a chance to learn about the scope of bird watching and bird tourism in Makaibari. They also stated that the training has helped them realize the benefits of bird conservation, and all of them would go back to their respective villages and make their friends and family realize the same. A WhatsApp group 'Makaibari Guide Training' was then created to facilitate the sharing of resource materials and observations even after the training ended.

### **3. TRAINING OUTCOMES**

- I. The training served as an awareness workshop for 35 participants, as it was an open workshop where local community members were encouraged to join the trainee guides for any of the technical sessions.
- II. 21 trainee guides from the local community were rigorously trained in 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. 21 trainee guides acquired a valuable understanding of how to become a good nature guide.
- IV. A preliminary checklist of 38 bird species in Makaibari was prepared.
- V. 21 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 in birding among the local communities.

**Annexure I: Programme**

<b>Promoting Bird Tourism in Makaibari T.E.: Birding Guide Training</b> <b>Venue: Kodobari Community Hall, Makaibari T.E., Darjeeling</b> <b>23rd - 24th December 2023</b>		
<b>DAY 0 (22nd December 2023)</b>		
TIME	ACTIVITIES	LEAD
0500PM	The arrival of Resource persons at Makaibari on Day 1 (Aditya and Saibal)	
<b>DAY 1 (23rd December 2023)</b>		
0830-0930 AM	Registration of Participants	Aditya Pradhan, ATREE
0930-0945AM	Introductions and Welcome	Aditya Pradhan, ATREE
0945-1000AM	The objective of the training	Aditya Pradhan, ATREE
1000-1030AM	Pre-test of participants about knowledge of 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
<b>DAY 2 (24th December 2023)</b>		
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 it 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
<b>Day 3 (25th December 2023)</b>		
0800 AM	Departure of resource persons	

Annexure II: Sign-up sheet

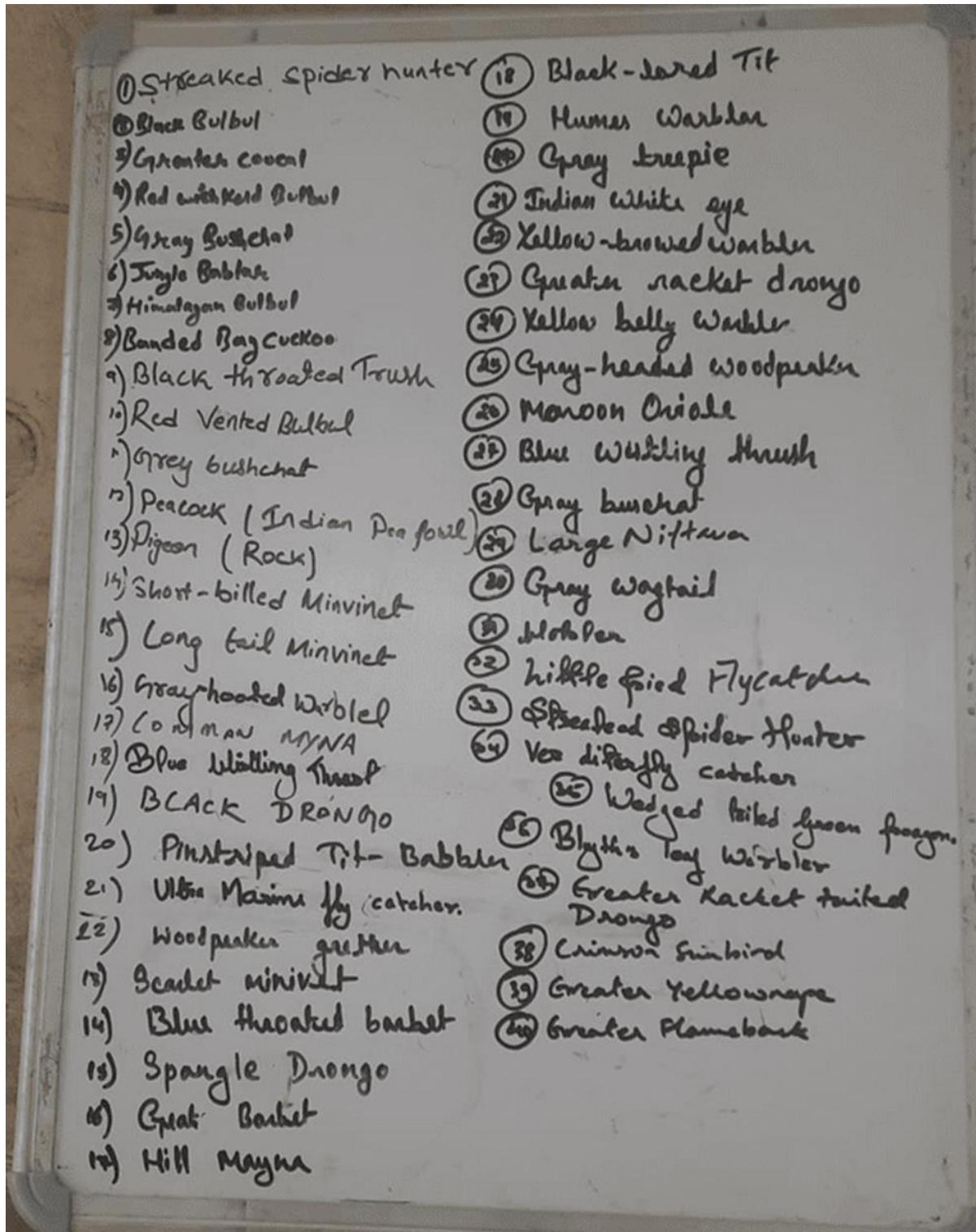
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Sl. No.	Name of the Participant (Guides)	Day 1-Session 1	Day 1-Session 2	Day 1-Session 3	Day 2-Session 1	Day 2-Session 2	Day 2-Session 3
1.	DICKER CHODEN-LAMA						
2.	KHENTI RAVANTI						
3.	Rasch Chetri						
4.	Aruna Rai						
5.	KRISHNA RAI						
6.	Lasang Asha Tamang						
7.	Huati Rai						
8.	Pragati Subba						
9.	Yasmin Rai						
10.	Pragati Mangar						
11.	Paryami Tamang						
12.	Ashwini Rai						
13.	Shruti Rai						
14.	Rudra Chetri						
15.	Kulsum Chetri						
16.	Sangeeta Rai						
17.	Arundhati Tamang						
18.	Manjula Tamang						
19.	Anita Chetri						
20.	Navika Chetri						
21.	Rudra Chetri						





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	Banded Bay Cuckoo	<i>Cacomantis sonneratii</i>	
2	Black Bulbul	<i>Hypsipetes leucocephalus</i>	Kyaki
3	Black Drongo	<i>Dicrurus macrocerus</i>	Chibey
4	Black-lored Tit	<i>Machlolophus xanthogenys</i>	
5	Black-throated Thrush	<i>Turdus atrogularis</i>	
6	Blue Whistling Thrush	<i>Myophonus caeruleus</i>	Kalchura
7	Blue-throated Barbet	<i>Psilopogon asiaticus</i>	Katurka
8	Blyth's Leaf Warbler	<i>Phylloscopus reguloides</i>	Fista
9	Common Myna	<i>Acridotheres tristis</i>	Ruppee
10	Crimson Sunbird	<i>Aethopyga siparaja</i>	Balchey
11	Great Barbet	<i>Psilopogon virens</i>	Nyaul
12	Greater Flameback	<i>Chrysocolaptes guttacrastatus</i>	Lachey
13	Greater Coucal	<i>Centropus sinensis</i>	
14	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>	
15	Greater Yellownape	<i>Chrysophlegma flavinucha</i>	Lachey
16	Grey Bushchat	<i>Saxicola ferreus</i>	Dhuirey
17	Grey Treepie	<i>Dendrocitta formosae</i>	Kokolay
18	Grey Wagtail	<i>Motacilla cinerea</i>	
19	Grey-headed Woodpecker	<i>Picus canus</i>	Lachey
20	Grey-hooded Warbler	<i>Phylloscopus xanthoschistos</i>	Fista
21	Hill Myna	<i>Gracula indica</i>	Maina
22	Himalayan Bulbul	<i>Pycnonotus leucogenys</i>	Phusre Jureli
23	Hume's Warbler	<i>Phylloscopus humei</i>	Fista
24	Indian Peafowl	<i>Pavo cristatus</i>	Majur
25	Jungle Babbler	<i>Argya striata</i>	
26	Large Niltava	<i>Niltava grandis</i>	
27	Lineated Barbet	<i>Psilopogon lineatus</i>	
28	Little Pied Flycatcher	<i>Ficedula westermanni</i>	
29	Long-tailed Minivet	<i>Pericrocotus ethologus</i>	Rani Chara
30	Maroon Oriole	<i>Oriolus traillii</i>	
31	Oriental White-eye	<i>Zosterops palpebrosus</i>	
32	Pin-striped Tit Babbler	<i>Mixornis gularis</i>	
33	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Kali Jureli
34	Rock Pigeon	<i>Columba livia</i>	Parewa
35	Scarlet Minivet	<i>Pericrocotus speciosus</i>	Rani Chara
36	Short-billed Minivet	<i>Pericrocotus brevirostris</i>	Rani Chara
37	Spangled Drongo	<i>Dicrurus bracteatus</i>	Vyaguma
38	Streaked Spiderhunter	<i>Arachnothera magna</i>	Bungey
39	Ultramarine Flycatcher	<i>Ficedula superciliaris</i>	
40	Verditer Flycatcher	<i>Eumyias thalassinus</i>	Harini
41	Wedge-tailed Green Pigeon	<i>Treron sphenurus</i>	Haleso
42	Yellow-bellied Warbler	<i>Abroscopus superciliaris</i>	Fista
43	Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	Fista

## Annexure V: Photographs



Mr. Subu Rai, Social Worker and co-organizer of the training, delivered the welcome address.



Aditya Pradhan showing photos of some common birds during the pre-test.



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



Dr. Saibal Sengupta in action, where he explains the importance of the Kangchendzonga landscape using a *Thanka* style painting of the landscape containing faunal components.



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



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



Group photo of the participants and resource people after the Technical Session II.



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



Debriefing of participants before the Field Session II.



Participants in action along the trail during Field Session II.



Participants observing birds during Field Session I.



Participants observing birds during Field Session II.



Participants observing birds during Field Session II.



Participants moving along the trail during Field Session II.



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



Participants observe birds, taking notes and using Merlin Bird ID app during Field Session II.



Participants preparing a checklist of birds observed during Field Session II.



Participants present their group work after the field session.



Participants present their group work after the field session.



Dr. Saibal Sengupta presenting a talk on Bird Watching and Conservation during the Technical Session III.



Aditya Pradhan delivering a presentation on the avian diversity of Darjeeling with emphasis to endemic species of the Eastern Himalaya during Technical Session III.



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



Participants moving along the trail during Field Session III.



Participants taking photos of butterflies during Field Session III



Participants carefully answer questions during the post-test.



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