Report on

Darjeeling-Kalimpong
Bird Guide Refresher Training

Organised by Ashoka Trust for Research in Ecology and the Environment in collaboration with the Darjeeling Wildlife Division

Supported by The Rufford Foundation

22-24 August 2025
NiC Hall, Maneybhanjyang, Darjeeling
West Bengal, India

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Executive Summary

The Darjeeling-Kalimpong Bird Guide Refresher Training, held in Maneybhanjyang from 22–24 August 2025, brought together 17 previously trained guides for a three-day program focused on enhancing bird identification skills, guiding ethics, and conservation awareness. Organised by ATREE–Eastern Himalaya in collaboration with the Darjeeling Wildlife Division, the training combined classroom lectures, participatory discussions, and hands-on field exercises to strengthen both technical knowledge and professional guiding practices.

Despite challenging weather conditions, participants documented 38 bird species during field sessions and engaged in data collation exercises that reinforced the importance of systematic biodiversity monitoring. Expert-led sessions covered diverse topics, including raptor and waterbird ecology, the role of birds in ecosystems, the cultural and ecological significance of the Kanchenjunga Massif, and the principles of ethical guiding and birding. Through interactive learning, participants not only refreshed their field skills but also developed a stronger understanding of how responsible bird tourism can support conservation and contribute to local livelihoods.

The training outcomes included improved bird identification skills, renewed confidence in guiding practices, greater awareness of livelihood opportunities linked to bird-based tourism, and stronger peer networking among participants. The program concluded with a post-test evaluation and distribution of certificates, recognising the active involvement and successful completion of the participants.

Overall, the refresher course reinforced the role of bird guides as both nature interpreters and conservation stewards. By equipping them with updated knowledge and skills, the training strengthened the foundation for promoting responsible tourism and biodiversity conservation in the Eastern Himalaya.

1. Background

The Eastern Himalaya is one of the world's most important biodiversity hotspots, harbouring a rich diversity of bird species across varied habitats and altitudinal ranges. The Darjeeling and Kalimpong districts, situated within this landscape, are particularly significant for bird conservation and nature-based tourism. In recent years, bird tourism has emerged as a sustainable livelihood opportunity in the region, providing income not only for local guides but also for homestays, transport providers, and associated community enterprises.

Recognising this potential, ATREE–Eastern Himalaya, with support from the Rufford Foundation and the Oriental Bird Club, has been conducting training programs to build the capacity of local youth as professional bird guides over the past three years. These initiatives aim to strengthen skills in bird identification, ecological interpretation, and ethical guiding practices, while also fostering conservation awareness.

The Bird Guide Refresher Training (22–24 August 2025, Maneybhanjyang) was organised as a follow-up to earlier trainings to reinforce participants' knowledge, introduce them to new concepts in bird ecology, and refresh their practical skills through field-based learning. The refresher course also emphasised the importance of responsible tourism, networking, and community-based conservation in safeguarding the unique bird diversity of the Eastern Himalaya.

2. Participants and Engagement

A total of 17 participants attended the Bird Guide Refresher Training, comprising 14 previously trained bird guides (including one female guide) and three forest guards who had earlier undergone similar training. The composition of the group reflected both community-based practitioners and frontline forest staff, creating a balanced platform where local knowledge, professional guiding skills, and conservation perspectives could converge.

The bird guides brought with them prior field experience, familiarity with the bird diversity of the region, and insights into working with tourists. The participation of a female guide was particularly significant, as it represented a step towards greater inclusivity in a field where women are often underrepresented. The presence of forest guards enriched the training by adding practical perspectives from their daily responsibilities of patrolling, habitat monitoring, and protecting biodiversity.

Throughout the three-day program, interactive discussions and group activities encouraged participants to share their experiences, challenges, and success stories in guiding and conservation. This exchange fostered peer-to-peer learning, enabling participants to reflect on diverse approaches to bird identification, tourist engagement, and conservation awareness. The training also created opportunities for strengthening networks between guides and forest staff, highlighting the importance of collaboration in promoting bird tourism and safeguarding biodiversity in the Eastern Himalaya.

3. Training activities

3.1. Day 1: Theoretical and Practical Sessions

3.1.1. Opening, Pre-Test and Inaugural session

The first day of the training began with a round of introductions, allowing participants and resource persons to get to know each other and set the tone for collaborative learning. This was followed by a briefing on the training objectives, delivered by Aditya Pradhan (ATREE), who outlined the purpose of the refresher training and the expected outcomes in terms of strengthening knowledge, guiding skills, and conservation ethics. To assess the baseline understanding of the participants, a pre-test was conducted by Aditya Pradhan and Yashvi (ATREE), focusing on bird identification, conservation awareness, and guiding practices.

The inaugural session was led by Dr. Sailendra Dewan (ATREE), who formally welcomed the distinguished guests and participants. This was followed by short addresses from the Range Officers—Roshan Rai (South Range), Diganta Maity (Tonglu Range), and Subash Tamang (North Range). Each of them offered words of encouragement, emphasising the importance of the training in building professionalism among bird guides and highlighting the role of guides in supporting both biodiversity conservation and local livelihoods.

The session was further enriched by Dr. Nakul Chettri (Associate Director, ATREE), who underscored the vital role of guides as ambassadors of the region. To illustrate this, he shared two inspiring examples from West Sikkim. In the first, he recounted the story of a porter who, through dedication and passion, transformed himself into one of the most sought-after bird guides in the region. In the second, he narrated how another porter, deeply aware of the rules and regulations of the national park, refused to allow his clients to light a bonfire inside the protected area. This act of responsibility not only protected the ecosystem but also earned accolades from the Ministry of Environment, Forest and Climate Change. These stories served as powerful reminders of how individuals can become true custodians of nature and role models for sustainable tourism.

The inaugural proceedings set an inspiring tone for the training, motivating participants to view their work not just as guiding, but as a form of stewardship.

Photo 1: Mr. Diganta Maity (Range Officer, Tonglu Range) offering words of encouragement, emphasising the importance of the training in building professionalism among bird guides

Photo 2: Dr. Nakul Chettri (Associate Director-THI, ATREE) delivering the inaugural address

3.1.2. Biogeography of Darjeeling Himalaya

Dr. Saibal Sengupta, St. Robert's School, delivered a detailed session on the biogeography of Darjeeling and Kalimpong. He provided an overview of the geological history of the Himalaya and explained how these processes shaped the region's landscapes and ecological uniqueness. Particular emphasis was placed on the Kanchenjunga landscape and its critical role in sustaining diverse habitats and species. The session highlighted the remarkable diversity of flora and fauna in the region, especially within protected areas, and examined how habitat types and climatic conditions influence species distribution and behaviour. Dr. Sengupta also underscored the interconnections between geography and ecology, helping participants appreciate why the Eastern Himalaya harbours exceptional biodiversity and offers a unique setting for birdwatching.

3.1.3. Bird Diversity of the Darjeeling- Kalimpong Himalaya

Aditya Pradhan (ATREE) delivered a presentation on the bird diversity of the Darjeeling Himalaya, highlighting why the region is considered a prime birdwatching destination. The session emphasised the significance of the Eastern Himalaya as a biodiversity hotspot and introduced participants to the nine Eastern Himalaya endemic bird species that are found in Darjeeling. He also discussed key bird groups of the Darjeeling–Kalimpong Himalaya, illustrating them with examples to demonstrate their ecological importance and uniqueness. The presentation underscored how the area's exceptional habitat diversity sustains a rich variety of bird species and supports a remarkable seasonal turnover in bird communities. An interactive bird identification exercise using images encouraged participants to sharpen their identification skills.

Q&A and Discussion

Participants actively engaged in the discussion, raising questions such as the distinction between parakeets and parrots, and identifying numerous bird species using both local and English names.

Photo 3: Dr. Saibal Sengupta (St. Robert's School, Darjeeling) delivering a talk on biogeography of the Darjeeling-Kalimpong Himalaya

Photo 4: Mr. Aditya Pradhan (ATREE) delivering a talk on bird diversity of the Darjeeling-Kalimpong Himalaya

3.1.4. Important Birds attracting the Tourists in the Darjeeling- Kalimpong Himalaya

Sanjok Dewan (Bird Guide and founding member of METACOS, a local NGO working on bird conservation) from Rongtong delivered a session on the bird species that attract tourists to the Darjeeling–Kalimpong region. Using images, he showcased key species such as the Rufous-necked Hornbill, Blood Pheasant, Satyr Tragopan, Thick-billed Green Pigeon, Great Parrotbill, Violet Cuckoo, Emerald Cuckoo, among others. He narrated interesting stories associated with each species, described their identification features, and highlighted common mistakes often made by guides in the field.

Sanjok emphasized that Latpanchar is often referred to as a "paradise for birdwatching," particularly due to its importance as a habitat for the Rufous-necked Hornbill. He also discussed correct and incorrect guiding practices, underscoring the role of bird guiding in promoting local tourism and the potential of responsible guiding to generate both direct and indirect livelihood opportunities for local communities.

Q&A and Discussion

The session included an interactive discussion where participants asked questions related to bird guiding and conservation, many of which were addressed by Sanjok Dewan.

Photo 5: Mr. Sanjok Dewan (METACOS) delivering a talk on important birds that attract tourists in the Darjeeling-Kalimpong Himalaya.

3.1.5. Citizen Science Tools in Birding

Pranjal Mahananda (Gauhati University) conducted a session introducing participants to the concept of citizen science and its role in bird monitoring and conservation. He provided a detailed demonstration of using applications such as eBird for recording bird observations, showcasing how such tools contribute to long-term bird conservation by generating large-scale data. He stressed that eBird maps provide the most accurate information on bird distribution in a region and emphasized the importance of everyone contributing to strengthen this knowledge base.

Q&A and Discussion

Participants raised queries regarding the use of these apps, which were addressed during the session. Some participants also expressed concerns that the increasing use of such platforms may encourage tourists to birdwatch independently, potentially reducing guiding opportunities.

Photo 6: Mr. Pranjal Mahananda (Gauhati University) delivering a talk on citizen science tools in birds.

3.1.6. Birding as a Business

Sanjok Dewan led a session on the potential of birding as a sustainable livelihood, highlighting both the direct and indirect economic benefits for guides and others involved in bird tourism. He advised guides to remain resilient during the off-season and to explore opportunities in different regions, given the vast and diverse landscapes of the area. The session emphasised that conservation must remain the foremost priority, alongside sharing knowledge to promote birding within local communities. Drawing on photographs and personal field experiences, he illustrated best practices, encouraged capacity building, and stressed professionalism, including assisting tourists with equipment and supporting them on challenging trails.

Q&A and Discussion

Participants asked how to guide tourists when unsure of bird names. Sanjok Dewan recommended beginning with the family name for easier identification. A discussion followed on the use of bird identification apps, with participants expressing concern over the misuse of playback to attract birds for photography. The session concluded with a consensus on the need to regulate such practices to ensure both responsible birding and conservation.

Photo 7: Mr. Sanjok Dewan delivering a talk on birding as a business.

3.1.7. First Field Session

Before heading to the field, Pranjal Mahananda provided a short demonstration on the basics of binoculars, introducing their types, parts, and correct usage. Participants were then divided into five groups, with each group sharing one pair of binoculars. This arrangement ensured that everyone could actively take part in the exercise while also learning to work collaboratively.

During the field session, Pranjal guided participants on how to systematically document bird species. They were encouraged to apply classroom techniques in the field by observing both birds and their habitats, noting details such as size, shape, colour patterns, behaviour, and habitat features. Real-time guidance was provided to refine documentation skills and support accurate species identification.

By the end of the exercise, participants had revised and strengthened their bird documentation skills, reinforcing earlier practices and refreshing their approach through practical exposure. This session marked the conclusion of the first field visit of the program.

Photo 8: Participants during the Field Session 1

3.2. Day 2: Theoretical and Practical Sessions

3.2.1. Data Collation

On the second day of the training, the planned field activity was cancelled due to rain. Instead, participants engaged in a data collation exercise based on their previous field observations. The primary task involved listing the bird species identified during the field session. Each group compiled their records, and collectively, the participants documented a total of 16 different species.

This collaborative exercise highlighted the importance of accurate data recording and demonstrated how individual observations contribute to a larger dataset. The hands-on activity provided participants with a practical understanding of the systematic process involved in biodiversity documentation and monitoring.

Photo 9: Data collation: Preparation of a checklist of identified birds during Field Session 1

3.2.2. Feedback and interaction session

During this session, participants shared their experiences and insights on bird identification in the field, as well as strategies to attract and engage tourists. Several participants highlighted the importance of proper bird guiding techniques, including briefing tourists before field activities, wearing dull-coloured clothing to avoid disturbing birds, carrying necessary medication for field safety, and avoiding the use of playback. They noted that while playback may help tourists see a species on their first visit, it risks reducing long-term tourism opportunities, as visitors may not return once they have already spotted the birds.

Participants also discussed broader strategies to promote sites and attract visitors. Suggestions included organising 4–5 birding workshops in collaboration with local communities and higher-level stakeholders, leveraging social media platforms for outreach, and coordinating with homestay owners and local guides to plan birding activities more effectively.

The discussion emphasised the importance of balancing tourist satisfaction with ecological sustainability, ensuring that bird tourism remains both responsible and viable over the long term.

Photo 10: A participant from Samsing, Kalimpong, sharing his experiences of dealing with clients and working as a professional Bird Guide

3.2.3. Fundamentals of Bird Biology and Identification

Dr. Saibal Sengupta (St. Robert's School) continued the training with a session introducing participants to the fundamentals of bird biology and identification. He began by explaining the unique characteristics of birds, highlighting their bipedal structure as a defining feature.

The session then focused on the key elements of bird identification, emphasising body size, plumage, and the distinction between primary and secondary colours. He suggested that comparing unfamiliar species with well-known local birds is a practical approach to improve accuracy. Small details such as markings on the bill, tail, and wings were stressed as particularly useful for distinguishing between similar-looking species.

Dr. Sengupta also explained how common English names are often linked to bird body parts, and how learning the technical terms for these features can make identification easier. Beyond physical traits, he encouraged participants to pay close attention to behavioural aspects—such as foraging patterns, flight style, and especially vocalisations—which are equally important in field identification.

The session further highlighted variation among common birds of Darjeeling, showing how seasonal changes and habitat differences influence both appearance and behaviour. He underlined the strong connection between birds and flora, noting that vegetation plays a critical role in shaping bird distribution. The session concluded with an overview of important birds of Singalila National Park, reinforcing the conservation value of this landscape.

Photo 11: Dr. Saibal Sengupta delivering his talk on the fundamentals of bird biology and identification

3.2.4. Key Bird Groups: Raptors

Mr. Pranjal Mahananda led a session on raptors, introducing them as large, long-lived, diurnal birds of prey characterised by keen eyesight, hooked beaks, and sharp talons adapted for grasping and killing prey. These traits make them highly specialised hunters. He explained that raptors are divided into seven families, which include hawks, eagles, falcons, owls, kites, and vultures, providing participants with an overview of the group's diversity.

Using images of different species, Mr. Mahananda demonstrated how to identify raptors in the field. Participants were guided to observe features such as overall body size, the number of primary and secondary feathers, head-to-tail proportions, presence and shape of crests, plumage patterns, and tail shape. He linked these traits to habitat use and feeding behaviour—broad wings enabling species to glide at high altitudes, narrow wings allowing fast flight, and differences in beaks and talons reflecting adaptations for hunting or scavenging.

The interactive and image-based approach kept participants engaged, and many appreciated the depth of information, noting that such detailed study of raptors had not been covered in previous training programs.

Photo 11: Dr. Saibal Sengupta delivering his talk on the fundamentals of bird biology and identification

Q&A and Discussion

What is the difference between vultures and other raptors?

Mr. Mahananda explained that vultures are raptors adapted to scavenging. Unlike eagles or hawks, which actively hunt live prey, vultures feed primarily on carrion, supported by their strong digestive systems that process decaying matter.

Why do different raptors have different shapes of beaks, feet, and wings?

He clarified that these are specific adaptations—hooked beaks for tearing flesh, strong talons for gripping prey, and wing variations that allow for either speed or soaring flight.

The session concluded with participants expressing appreciation for the clarity of explanations, the scientific depth, and the interactive teaching style, which made the session both informative and memorable.

3.2.5. Bird diversity patterns along Elevation Gradient

Dr. Sailendra Dewan delivered an insightful session on bird diversity along elevation gradients in the Himalayas. He emphasised that elevation is a key factor influencing bird distribution—species found in the lowlands are often absent at higher altitudes, and their unexpected presence at such elevations can be an indicator of climate change. He reminded participants that organisms are not distributed randomly but follow ecological and evolutionary patterns.

Dr. Dewan explained the main drivers of diversity: climate, biotic interactions, spatial conditions, and evolutionary history. Using graphs and images, he demonstrated how the Himalayas are exceptionally rich in bird life due to their unique historical and geographical context. He illustrated species richness patterns along elevation gradients, noting that bird communities often shift upward on mountainsides in response to warming temperatures.

Highlighting the topography of Kanchenjunga, he showcased examples of bird species ranging from the foothills to alpine zones. He explained that bird diversity peaks at mid-elevations and declines at higher altitudes, with the greatest levels of endemism also occurring at mid-levels.

Participants were also made aware of the key threats impacting biodiversity, such as climate change, habitat fragmentation, and elevational shifts in species ranges. To illustrate these risks, Dr. Dewan cited the case of the rare butterfly Dark Tinsel, historically found at Adampool, Sikkim, but now restricted to just four sites due to habitat loss from construction—an example of how such pressures could drive species toward extinction.

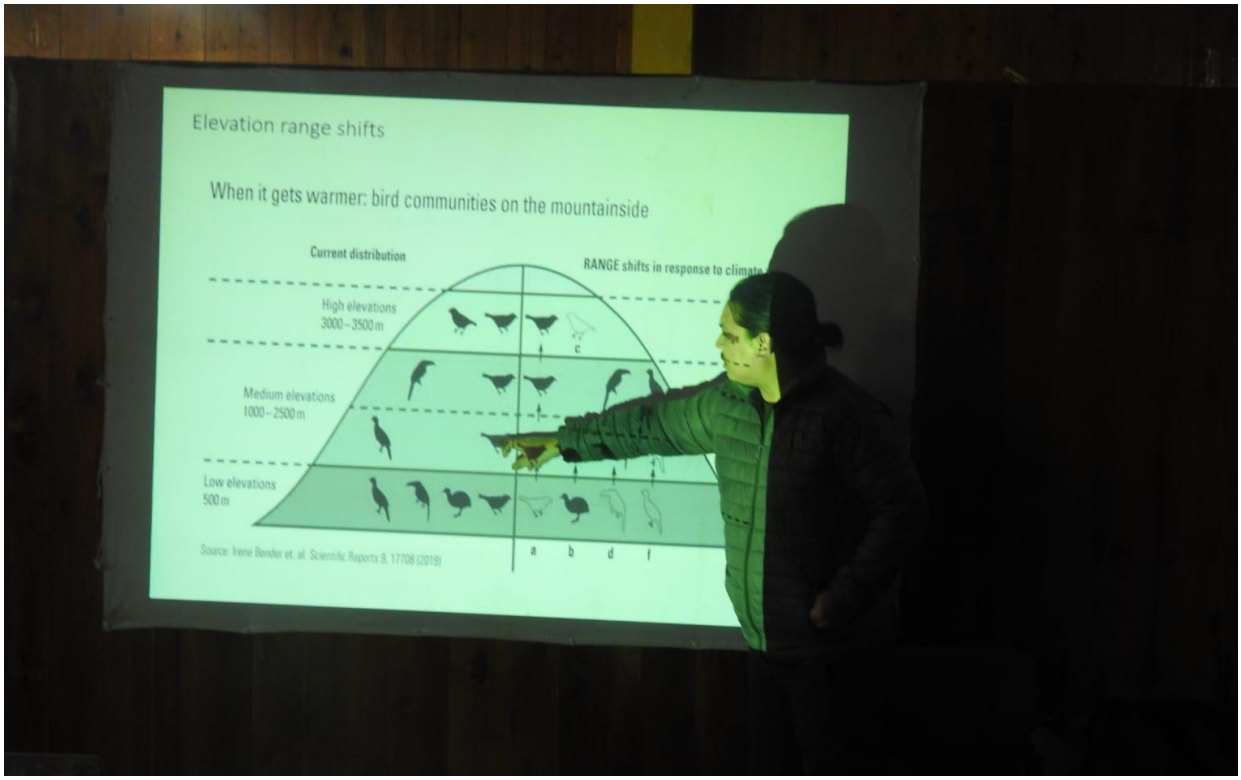

Photo 12: Dr. Sailendra Dewan (Fellow-in-Residence at ATREE) delivering a talk on bird diversity patterns along the elevation gradient in the Darjeeling-Kalimpong Himalaya

Photo 13: Dr. Saibal Sengupta delivering a talk on how to interpret a landscape

3.2.6. How to interpret a landscape: A case study of Tonglu

Dr. Saibal Sengupta began the session by reminding participants that to be a good guide, one must first understand the landscape. Using Tonglu as a case study, he explained that it is not part of Singalila National Park but lies within the buffer zone under the Darjeeling Forest Division, giving it an independent identity and significance within the larger Kanchenjunga landscape.

He described the ecosystem of Tonglu as belonging to the Eastern Himalayan sub-alpine grasslands, a transition zone between alpine meadows and temperate forests. Participants learned how its mix of grasslands, shrubs, and scattered trees supports rich wildlife, including the Red Panda, introduced as a keystone species. Dr. Sengupta also highlighted the importance of natural streams and ponds, home to species such as the Himalayan Newt and loach fish. Using the example of the Satyr Tragopan, he explained the concept of indicator species, which reflect the health of a habitat.

The session further explored Tonglu's biodiversity, covering plants, mammals, butterflies, and medicinal species. He emphasised Tonglu's uniqueness by noting that while 18 species of rhododendrons occur across Singalila, only 10 are found in Tonglu. With images of flowers and landscapes, participants gained a clearer picture of Tonglu's ecological importance, including its role as a vital water catchment area.

To connect ecology with culture, Dr. Sengupta recounted the journey of Joseph Dalton Hooker through Tonglu, where Hooker described the Lepchas as "born naturalists." Participants also learned how species like *Clematis tongluensis* and *Pimpinella tongluensis* were named after this place. He concluded by sharing brief historical anecdotes of people and events linked to Tonglu, allowing participants to appreciate not only its biodiversity but also its cultural and heritage value.

3.2.7. Feedback session

The training concluded with a feedback session where participants reflected on their experiences. Many reported a significant increase in their interest in birds, butterflies, flora, and fauna, and noted that they were actively applying their new knowledge by observing, photographing, and sharing information on local species. Participants shared that they now approach birding and wildlife observation with greater confidence, patience, and attention to detail, which they also intended to apply when engaging with visitors or tourists.

Several forest guards shared that they previously viewed their work primarily as guarding the forest, but the training helped them realize that their role extends to protecting a rich and diverse ecosystem that includes plants, animals, birds, and butterflies.

The feedback also emphasized that the sessions enhanced participants' observational skills, documentation abilities, and ecological understanding, while also providing a sense of joy and relaxation through birding. Overall, participants expressed deep gratitude to the organizers, describing the training as educational, inspiring, and valuable in broadening their knowledge, skills, and appreciation of biodiversity.

Photo 14: A participant from Latpanchar sharing his experiences of working as a bird guide

Photo 15: A participant from Sirikhola sharing her experiences of bird watching

3.2.8. The Kanchenjunga Massif

In this session, Dr. Saibal Sengupta guided participants through the geography, history, and cultural significance of the Kanchenjunga Massif. He began by explaining the origins of local communities such as the Lepchas and Limbus, and the different names given to Kanchenjunga in their languages: the Lepchas called it *Kingstoom-Zanbo-Chyoo*, while the Limbus referred to it as *Sewa Lungma*. He highlighted the massif's spiritual value, noting that it is revered and worshipped by many communities across the region. Dr. Sengupta clarified the distinction between a mountain and a massif: a mountain refers to a single peak, whereas a massif is a group of connected mountains that form an independent portion of a range. With its many satellite peaks, Kanchenjunga is therefore a massif. He emphasised its scale, describing its height of 8,586 meters (28,169 feet), making it the third-highest peak in the world and the highest in India. The massif consists of five main peaks, three in India and two in Nepal, including Yalung Kang, Kabru, Pandim, and Jannu, each offering distinct geographical and cultural perspectives. The session also shed light on Kanchenjunga's historical and cultural importance, from its glaciers and ancient trade passages that facilitated exchanges among Himalayan communities, to its sacred role for the Lepcha and Limbu communities. Ecologically, Dr. Sengupta highlighted the massif's role within the Eastern Himalayan biodiversity hotspot, stressing its importance for both cultural heritage and natural history.

Photo 16: Dr. Saibal Sengupta delivering a talk on The Kanchenjunga Massif

He encouraged participants to describe Kanchenjunga not merely as a “block of snow,” but in terms of its geographical, ecological, and cultural significance. The session thus provided participants with a holistic understanding of Kanchenjunga, blending science, history, and spirituality, and enabling them to better appreciate and explain its importance as a landmark of the Eastern Himalayas.

3.3. Day 3: Theoretical and Practical Sessions

3.3.1. Second Field Session

On the third day, participants set out for an early morning field visit to observe birds in their natural habitats. Despite foggy weather conditions, they successfully identified several species, applying the observation and identification skills gained in earlier sessions of the training. The field exercise reinforced practical learning, allowing participants to refine their ability to notice key features and behaviours in real time.

Photo 17: Participants observing and recording birds during a Field Session 2

3.3.2. Data Collation and Feedback session

Following the field trip, participants engaged in a data collation exercise, where they listed and recorded all observed species on charts. Altogether, they documented 22 bird species that had not been recorded in the previous field session, highlighting the richness of the site.

The session also included a feedback discussion, during which participants shared their experiences and additional skills, such as snake handling and the identification of local medicinal plants. They reflected on how their perceptions of bird guiding had evolved following the previous trainings, noting greater confidence, broader ecological awareness, and stronger motivation to integrate guiding with conservation practices.

Photo 18: Participants collating data after the second field session

3.3.3. Key Bird Groups: Waterbirds

The session on waterbirds was led by Pranjal Mahananda, who introduced participants to the concept of waterbirds as species that rely on wetlands and waterbodies for survival, either year-round or during specific life stages. He emphasised the importance of accurate identification, noting that many waterbirds are challenging to distinguish without careful and detailed observation. He explained the altitudinal movements of waterbirds, highlighting how species often descend from higher, colder areas to lower altitudes during winter in search of food and shelter. Importantly, he clarified that waterbirds are not limited to ducks alone—waders and even certain raptors also depend on wetlands.

To aid identification, Pranjal displayed and explained the key body parts of waterbirds, focusing on ducks and waders, and highlighted the differences between dabbling and diving ducks. Using photographs, he showcased common species from the high-altitude Himalaya, such as the Eurasian Wigeon and Red-crested Pochard, alongside species more typical of lower altitudes, including the Eurasian Coot and Little Grebe. The session was highly interactive, with participants actively sharing their own sightings and describing the locations where they had observed various species. This made the learning process dynamic and participatory. Pranjal also introduced participants to the basics of waterbird counting, stressing its importance for monitoring and conservation.

Photo 19: Mr. Pranjal Mahananda delivering a talk on how to identify water birds

3.3.4. Role of Birds and Need for Conservation

Dr. Sailendra Dewan began the session by introducing the concept of an ecosystem as the interaction between nature and living organisms, helping participants understand how all elements are interconnected. He then explained the wide range of ecosystem services provided by birds. As provisioning services, birds offer food, feathers, and other resources. Through regulating services, they disperse seeds, aid in forest regeneration, pollinate plants, and clean the environment by removing carcasses. They also provide supporting services by cycling nutrients, fertilizing the soil naturally, and keeping the ground healthy through aeration. In addition, birds contribute cultural services, inspiring traditions, beliefs, and recreation in human societies. By illustrating each of these roles, Dr. Dewan emphasized how birds sustain ecosystems and support human well-being. Towards the end, he discussed the growing threats to birds, including habitat loss, fragmentation, climate change, and mismatches in seasonal cycles. He concluded by stressing that conserving birds is not only about protecting species but also about maintaining ecological balance and ensuring a healthier future for both nature and people.

Photo 20: Dr. Sailendra Dewan delivering a talk on the role of birds

3.3.5. Ethics of Guiding and Birding

Dr. Saibal Sengupta led the session on the ethics of guiding and birding, beginning with how a guide should interact with tourists—providing services with respect, but never in a subservient manner. He explained what it truly means to be a nature guide, outlining key roles and responsibilities such as tour planning, guiding and navigation, ensuring safety, interpretation, and knowledge sharing. A good guide, he stressed, must have a strong understanding of natural history, ecology, and local flora and fauna, and should be able to communicate this knowledge effectively to visitors.

He emphasised the idea of environmental stewardship, reminding participants that guides are not only service providers but also ambassadors of conservation. This requires promoting responsible behaviour and respect for the natural environment, engaging tourists through storytelling and hands-on experiences, while ensuring that conservation remains central to guiding practices. He also highlighted the importance of networking to build opportunities and strengthen community connections.

Photo 21: Dr. Saibal Sengupta delivering a talk on the ethics of guiding and bird watching

Dr. Sengupta further spoke about the principles of ethical birding, stressing that the well-being of birds must always come first. This means protecting habitats, respecting wildlife laws, and being especially cautious during the breeding season. He advised that in group birding activities, participants should minimise noise, avoid littering, refrain from feeding wild birds, and exercise care while photographing sensitive species. Through this, participants came to understand that being an ethical guide means striking a balance between service, knowledge, and conservation, while ensuring that birds and their habitats are never disturbed.

3.3.6. Post Test and Certificates Distribution

The day concluded with a post-test conducted among the participants to assess their learning outcomes. Designed to complement the pre-test held at the beginning of the training, it helped evaluate the knowledge and skills participants had gained over the course of the sessions. Following this, a certificate distribution ceremony was organised, where participants were awarded certificates in recognition of their active engagement and successful completion of the training program.

4. Outcomes

- **Enhanced Knowledge and Skills**
  Participants deepened their understanding of bird diversity and the Himalayan landscape while strengthening their abilities in bird identification, conservation awareness, and biodiversity monitoring techniques.
- **Practical Field Experience**
  Through field exercises, participants documented 38 bird species and gained valuable first-hand experience in systematic birdwatching, accurate data recording, and collaborative species identification (Photo 22, Table 1).
- **Strengthened Guiding Practices**
  The training reinforced professional guiding standards, including ethics, interpretation skills, and responsible tourism practices, highlighting the crucial role of guides as educators and conservation ambassadors.
- **Livelihood Linkages**
  Participants recognised how bird-based tourism supports not only guides but also creates economic opportunities for drivers, homestays, shops, and local communities, strengthening the case for community-wide benefits.
- **Confidence and Personal Growth**
  The training helped participants build confidence, enhance communication skills, and develop a sense of pride in their knowledge, contributing positively to personal development and mental well-being.

- **Networking and Peer Learning**
  The program fostered a spirit of collaboration, allowing participants to share experiences, learn from one another, and build stronger networks within the guiding community.

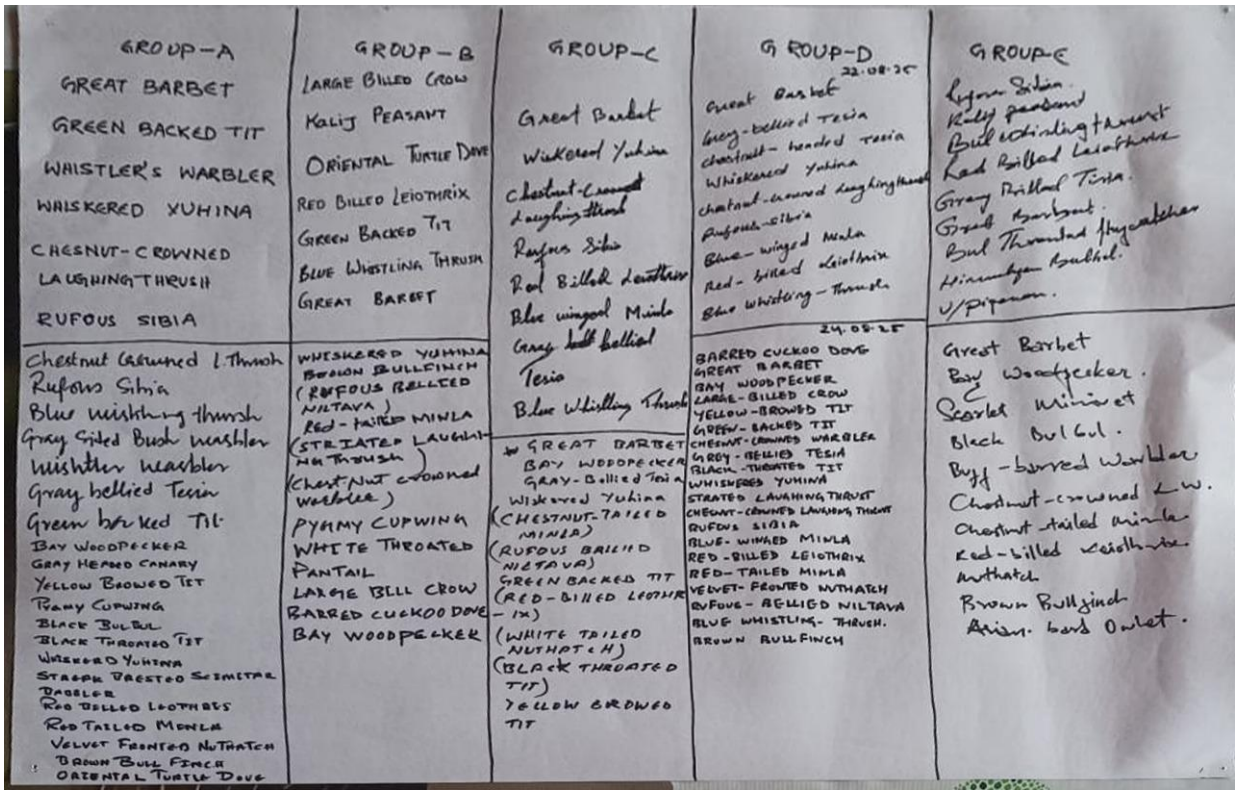

Photo 22: Checklist of birds observed by the participants divided in different groups during the Darjeeling Kalimpong Bird Guide Refresher Training in Maneybhanjyang, Darjeeling.

5. Conclusion

The refresher training successfully strengthened the knowledge, skills, and confidence of participants while deepening their understanding of bird diversity, guiding ethics, and conservation. By combining classroom sessions with practical field experiences, the program reinforced the importance of responsible guiding practices and highlighted the broader livelihood opportunities linked to bird-based tourism. The emphasis on networking, peer learning, and ethical tourism has prepared participants to act not only as guides but also as stewards of biodiversity and ambassadors for sustainable tourism in the Eastern Himalaya. This training marks a meaningful step toward building a skilled and responsible guiding community that can support both conservation and local livelihoods in the long run.

Table 1: Final checklist of all the birds observed and identified by the participants of Darjeeling-Kalimpong Bird Guide Refresher Training held in Maneybhanyang, Darjeeling on 22-24 August 2025.

SN	**Common Name**	**Scientific Name**
1	Great Barbet	*Psilopogon virens*
2	Green-backed Tit	*Parus monticolus*
3	Whistler's Warbler	*Phylloscopus whistleri*
4	Whiskered Yuhina	*Yuhina flavicollis*
5	Chestnut-crowned Laughingthrush	*Trochalopteron erythrocephalum*
6	Rufous Sibia	*Heterophasia capistrata*
7	Large-billed Crow	*Corvus macrorhynchos*
8	Kalij Pheasant	*Lophura leucomelanos*
9	Oriental Turtle Dove	*Streptopelia orientalis*
10	Red-billed Leiothrix	*Leiothrix lutea*
11	Blue-whistling Thrush	*Myophonus caeruleus*
12	Blue-winged Minla	*Actinodura cyanouroptera*
13	Gray-bellied Tesia	*Tesia cyaniventer*
14	Himalayan Bulbul	*Pycnonotus leucogenys*
15	Blue-throated Flycatcher	*Cyornis rubeculoides*
16	Unidentified Pigeon	*Columbidae* sp.
17	Bay Woodpecker	*Blythipicus pyrrhotis*
18	Scarlet Minivet	*Pericrocotus speciosus*
19	Black Bulbul	*Hypsipetes leucocephalus*
20	Bay-buff Barred Warbler	*Horornis fortipes*
21	White-tailed Nuthatch	*Sitta himalayensis*
22	Brown Bullfinch	*Pyrrhula nipalensis*
23	Asian Barred Owlet	*Glaucidium cuculoides*
24	Barred Cuckoo Dove	*Macropygia unchall*
25	Large-billed Crow	*Corvus macrorhynchos*
26	Yellow-browed Tit	*Sylviparus modestus*
27	Black-throated Tit	*Aegithalos concinnus*
28	Spotted Laughingthrush	*Ianthocincla ocellata*
29	Chestnut-crowned Warbler	*Phylloscopus castaniceps*
30	Red-tailed Minla	*Minla ignotincta*
31	Velvet-fronted Nuthatch	*Sitta frontalis*
32	Rufous-bellied Niltava	*Niltava sundara*
33	Pygmy Cupwing	*Pnoepyga pusilla*
34	White-throated Fantail	*Rhipidura albicollis*
35	Chestnut-tailed Minla	*Actinodura strigula*
36	Gray-sided Bush Warbler	*Cettia brunnifrons*
37	Gray-headed Canary Flycatcher	*Culicicapa ceylonensis*
38	Streak-breasted Scimitar Babbler	*Pomatorhinus ruficollis*