

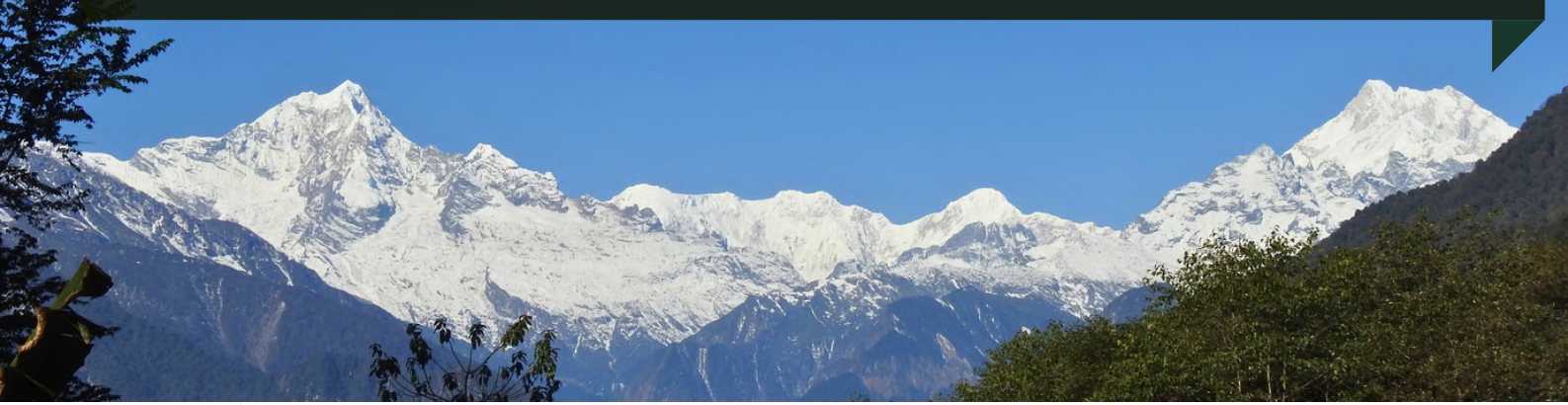


Eastern Himalaya

Quarterly newsletter of the ATREE Eastern Himalaya / Northeast Regional Office

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BIG BUTTERFLY MONTH 2023



The Eastern Himalaya is known for its rich biodiversity and stunning landscapes, providing habitats for a diverse array of flora and fauna. Among these captivating creatures, butterflies adorn the natural canvas with vibrant colours and elegance. This year, ATREE Eastern Himalaya's staff made significant contributions to the "Big Butterfly Month 2023" initiative. Their collective efforts resulted in a remarkable total of 1,204 observations encompassing 180 butterfly species. These valuable contributions demonstrate the commitment of ATREE's staff to the documentation of these beautiful insects.

The data contributed came from various offices and field sites, covering all the districts of Sikkim, and extending into Darjeeling and Kalimpong districts in West Bengal. Notably, this year marked the inclusion of data from Alipurduar district in West Bengal and Lohit district in Arunachal Pradesh.

The commitment and passion of all the staff for the Big Butterfly Month initiative were truly outstanding. Their collective efforts and diverse observations have enriched the project's dataset, offering valuable insights into the butterfly fauna of the Eastern Himalayas. This collective effort reinforces the idea that when individuals come together for a common cause, their impact can be far-reaching. The contribution of ATREE's staff in documenting butterflies in the Eastern Himalayas is a shining example of citizen science and a valuable resource for researchers and conservationists.

As we celebrate the success of Big Butterfly Month 2023, it is clear that the Eastern Himalayan region, with its passionate individuals, is not only a biodiversity hotspot but also a place where dedicated efforts are made to protect and preserve its natural wonders.



Butterflies documented during Big Butterfly Month 2023 - Bren Kumar, Rohit George, Pema Yangden Lepcha

Rohit George
(rohit.george@atree.org)



Socio-ecological landscape in West Sikkim - Pema Yangden Lepcha

Understanding the perception of farmers on climate change impacts in Sittong, Darjeeling

As part of my internship with ATREE Darjeeling office, I conducted surveys in over 20 villages of Sittong to understand the perception of communities on the impacts of changing weather patterns on agriculture in these villages. Because climate change significantly affects farming I thought it would be essential to understand the challenges that farmers are facing and how they are coping/adapting to these changes. 108 people/households were interviewed using Open Data Kit (ODK) to record the response. Majority of farmers stated that the crop output in the last 5 years had been decreasing, and the seasons have been more variable. Respondents also stated that there had been an increase in insect pests and in mosquitoes which were not found there earlier. As for adaptations, 91% of respondents stated that they did not have any adaptations for the emerging changes due to climate change. However, some of the farmers did say that they had adopted some coping and adaptation strategies. These included planting more trees to stop landslides, planting trees in the forest to stop crop depredation from animals, and adding sanitation tanks.

Jude Thomas
Summer Intern
Junior, St. Johns High School in Massachusetts USA
(jct2018md@gmail.com)

Restoration of a degraded site in Dhajea Tea Garden of Rangbang valley, Darjeeling

Assisted regeneration through plantation of native multipurpose indigenous tree species was done in degraded sites identified by the local communities and tea garden management of Dhajea Tea Garden, Darjeeling. This was supported by the "Transforming lives through Efficient Energy Technologies & Restoration of Degraded lands in Tea Landscape of Darjeeling" project, funded by Norton LifeLock through its CSR component. 2,183 saplings of 10 different native species were planted in an area of 1.73 ha. on 5th July 2023.

Tenzing Sherpa, Sanjeeb Pradhan
(tenzing.sherpa@atree.org, sanjeeb.pradhan@atree.org)



Restoration activities at Rangbang vallery Drjeeling- Tenzing Sherpa

Orchards for livelihoods development for tribal families in Sittong, Darjeeling

With support from the Tribal Development Fund of NABARD, we initiated the "Orchard Development and Allied Livelihood Support" project with the aim of enhancing the livelihoods of 252 tribal families in Sittong Gram Panchayat III, Darjeeling impacting 80-hectare of productive land

This integrated project includes activities on spring shed management, building small irrigation infrastructure, promoting sustainable agriculture with a horticulture-forest model, soil management as well as enterprises based on natural resources. This multifaceted approach will not only create additional income streams but also foster a more resilient and sustainable way of life for the tribal families.

Tshering Dorjee Bhutia, Tenzing Sherpa
(tshering.bhutia@atree.org, tensing.sherpa@atree.org)



Mandarin saplings - Tshering Dorjee Bhutia

Engaging with schools in Arunachal Pradesh for White-bellied Heron conservation



WBH outreach event in Bodhisatta Deban

Paucity of information on the critical status of the White-bellied Heron (WBH) even among people living close to its habitats is one of the major conservation challenges. As part of the project, "Conserving the Critically Endangered White-bellied Heron in Arunachal Pradesh" supported by The Habitats Trust we organized 7 outreach events in schools across two districts - Changlang and Anjaw district of Arunachal Pradesh. We reached out to 271 students and teachers through these events. The purpose of the outreach events was to raise awareness about WBH with students from the local community residing near WBH habitats and about general biodiversity around them. Activities included - visiting WBH habitat sites, nature walk for birds and butterflies, using bird audio to recognize bird calls and use of tools like ebird and iNaturalist.

Yumlam Benjamin Bida
(benjamin.bida@atree.org)

Inter School Nature Knowledge Quest 2023

As part of the Pangolin conservation project, preliminary and final rounds of the Inter-School Quiz Contest- "Nature Knowledge Quest 2023" was held on 3rd and 29th August 2023 in Pokhriabong, Darjeeling with the theme- "Pangolin and biodiversity of the Himalaya, Wildlife Trade and Zoonotic Diseases". Students from seven different schools of Rangbhang Valley participated in the events. Dr Saibal Sengupta an Environment educationist was the Quiz Master while Mr. S.P Sharma, WBFS (Former ADFO, Darjeeling Division), and Shri Gopal Sharma (Manager, Dhajea Tea Estate) attended the event as Chief guests. The winner was Sacred Heart School while Rising Sun English School and Model English Secondary School were declared the first and second runner ups respectively. The best Quizzer title went to Miss Payal Subba (Orchid Valley Academy) and 'Best audience participant'- Master Prankit Khawas (Rising Sun English School).

Susadhna Gurung
(susadhna.gurung@atree.org)



Attendees of Interschool Quiz Contest (Nature Knowledge Quest) 2023- Mingma Tamang

Field visit and Workshop for preparation of Oak Forest Restoration Field Manual

A field visit was organised to 7th Mile, JN Road, under Kyongnosla Forest Range, Sikkim to observe the various restoration work undertaken for oak forest restoration with specific focus on site preparation using mechanised methods in removing invasive native species. The 15 participants included representatives from Forest and Environment



Field Visit to 7th Mile, JN Road, under Kyongnosla Forest Range - Rashila Gurung

Department, Government of Sikkim and from institutions such as GBPNiHE, Sikkim Regional Centre, KCC (Kanchendzonga Conservation Committee), Yuksam, West Sikkim and Sikkim University. The participants of the visit provided technical inputs for furthering restoration work in the prepared site. The visit largely aided in incorporation of information related to mechanised site preparation, and other relevant activities in the field manual. This was followed by a meeting at the Forest Secretariat, Deorali with the senior officers of the Forest and Environment Department, Government (FED) of Sikkim to share the prepared draft manual. 10 participants from FED and a representative of SDC attended the meeting. The meeting helped to get further feedback and improvements in the draft field manual from the senior officers of FED, Government of Sikkim.

Rashila Gurung
rashila.gurung@atree.org

New Staff:



Ms. Rashila Gurung, from Chakung Soreng District, Sikkim joined ATREE in May, 2023 as Research Associate for the TNC funded project-working on developing a field manual for implementation of Oak forest regeneration/restoration activities in Sikkim. Rashila completed her MSc. in Forestry from NERIST in 2022.



Ms. Priyanka Rai, from Dalmore Tea Garden, Alipurduar district West Bengal. She joined ATREE as a Project Associate under project entitled "Addressing knowledge gap on the Critically Endangered Chinese Pangolin, *Manis pentadactyla* in West Bengal: in Mahananda Wildlife Sanctuary and Buxa Tiger Reserve. " She completed her MSc in Zoology from North Bengal University in 2022



New Publications:

1. Bida, Y. B., & Pradhan, A. (2023). A daytime observation of a Spotted Linsang *Prionodon pardicolor* in Namdapha Tiger Reserve, Arunachal Pradesh, India. Small Carnivore Conservation, 61: e61002
https://iucnsgbull.org/Volume40/Bida_2023.html
2. Pradhan, A. (2023). A daytime observation of a group of Masked Palm Civets *Paguma larvata* in Darjeeling, India. Small Carnivore Conservation, 61: e61006.
<https://smallcarnivoreconservation.com/index.php/sccg/article/view/4936/5357>

Book Chapters:

1. Khaling Sarala (2023). White-bellied Heron, a rare Critically Endangered Ave. In Pronami Bhattacharyya (Ed.) Biological Apocalypse: Species Extinction in the Anthropocene, Primus Books, New Delhi
2. Pradhan Sunita (2023). Pangolin: the species you have never heard of. In Pronami Bhattacharyya (Ed.) Biological Apocalypse: Species Extinction in the Anthropocene, Primus Books, New Delhi
3. Pradhan Sunita (2023) Red Panda the mountainous mammal. In Pronami Bhattacharyya (Ed.) Biological Apocalypse: Species Extinction in the Anthropocene, Primus Books, New Delhi
<https://amzn.eu/d/a3diJCo>



New Grants:

Addressing knowledge gap on the Critically Endangered Chinese Pangolin, *Manis pentadactyla* in West Bengal : West Bengal Biodiversity Board, Kolkata, West Bengal



Achievements:

1. Yumlam Benjamin Bida was accepted as a PhD candidate at the Department of Forestry, Northeast Regional Institute for Science and Technology, Arunachal Pradesh
2. Abriti Moktan was accepted as a PhD student at the, Forest Resources, Water-Energy-Food Nexus Cohort, Department of Ecosystem Science and Management, Penn State College of Agriculture Sciences

ATREE's mission is to promote socially just environmental conservation and sustainable development by generating rigorous interdisciplinary knowledge that engages actively with academia, policy makers, practitioners, activists, students and wider public audiences. ATREE's Northeast / Eastern Himalayas Programme has a direct presence in the Darjeeling and Sikkim Himalaya with a range of local partners in the other states of North East India.

Dr. Sarala Khaling
(sarala.khaling@atree.org)

Rohit George
(rohit.george@atree.org)