



RED PANDA

ATREE – EASTERN HIMALAYA
REGIONAL OFFICE NEWSLETTER

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OF NOTE

- Three CEPF Grantees report some exciting finds from the field. In their own words...
- An assessment of biodiversity and socio-economic issues of NE India
- A survey of ecotourism in Sikkim and Darjeeling
- Conservation gains in a biodiversity hotspot: livelihoods and ecosystem health

RED PANDA SURVEY IN NEORA VALLEY NP

A team from ATREE has just conducted a survey of the red panda *Ailurus fulgens* in Neora Valley National Park, Darjeeling. The survey, supported by the Rufford Small Grants Programme, was a follow up of the study and conservation efforts in the Singhalila National Park and focused on Neora Valley in an effort to piece together a more complete picture of the status of red panda in Darjeeling Himalayas.

In India, red panda is distributed in Darjeeling, Sikkim and Arunachal Pradesh. The only study of red panda so far in India has been in the Singhalila National Park, Darjeeling and an *ex-situ* conservation effort at the Padmaja Naidu Himalayan Zoological Park in collaboration with the Wildlife Division, Forest Department.

Current knowledge on the population status from other areas of red panda distribution is scarce. This information gap is considered a significant hurdle for conservation of the species.

From the evidence gathered during the systematic survey of the red panda, a minimum number of 28 - 32 red pandas have been estimated for the Upper Neora Valley National Park. With this estimate the study has come up with baseline data on red panda for the first time in Neora Valley National Park, Darjeeling. A minimum number of 47 red pandas had been estimated for Singhalila National Park in 1998.

The survey also highlighted problems such as insufficient infrastructure, inadequately trained staff, trans-boundary issues, poaching of wild animals, removal of timber and NTFP, trade of orchids, removal of *maling* bamboo, grass and firewood, fire, grazing of livestock from the fringe villages and lack of research and monitoring. However no direct threats—like poaching, keeping red pandas as pets or a history of red panda trade—were noticed or detected. The survey also documented other mammals, birds and seasonal

flowering plants encountered during the survey.

The survey team consisted of Tenzing Sherpa, Dr. Santosh Chettri and Dr. Upakar Rai. We are very thankful to Dr. Sunita Pradhan, Scientific Officer, Padmaja Naidu National Zoological Park, Darjeeling for guiding and advising the study team.



The survey has yielded the first ever photographic records of the red panda and serow (below) in the Neora Valley National Park
Photos: Tenzing Sherpa



NEWS IN BRIEF

The Blue Moon Fund, Virginia, USA has committed support to a second phase of the Conservation and Livelihoods Programme in the Eastern Himalayas.

Tripura, Mizoram & Nagaland have been selected for a Ford Foundation supported project on working with civil society groups to advance conservation & livelihoods.

A camera trapping survey of tigers has been carried out by ATREE researchers at Manas Tiger Reserve in Assam. This work was supported by the Save the Tiger Fund, USA.

BETTER LIVELIHOOD OPPORTUNITIES AND ECOSYSTEM HEALTH

ATREE's work with local communities has substantially raised their domestic income while advancing conservation in a biodiversity hotspot. Case studies from 3 hill villages inside Senchel Wildlife Sanctuary, Darjeeling show significant local contributions to enhance the health of the surrounding ecosystem.

Prior to ATREE's interventions, these villages were harvesting timber to make charcoal on a commercial scale and selling this to the suburban population. A survey

revealed that on average each household harvested up to 75kg of fuel wood in a day. Through persistent efforts by ATREE and alternative livelihoods opportunities sustained by new market linkages, villagers have completely stopped making wood charcoal taking much pressure off the forests in the area. Fuel wood extraction from the forests has been reduced by almost 4 times since then.

Today, all households are engaged in sustainable livelihoods practices due to the high degree of

awareness and additional income generated through a basket of livelihood interventions. It is estimated that as a result, the saving from one village amounts to roughly 960kg of fuel wood, or a curtailment of approximately 192kg of carbon emission, per day. Further, these communities have innovated cooking hearths to maximize fuel efficiency and use fuel wood more effectively. This also has implications for health as indoor air pollution from the improved cooking hearths is much reduced.

- Nishat Rehman



The innovated cooking hearths are fuel efficient and reduce indoor air pollution
Photo: Nishat Rehman

NOTES FROM AN ECOTOURISM SURVEY IN DARJEELING AND SIKKIM

Tourism, the mainstay of the Darjeeling economy, is roughly a Rs.500 crore industry and continues to grow rapidly. About 500,000 domestic and foreign tourists visit the region every year to witness the panoramic views of Mount Everest and the Khangchendzonga, the prime drawing factor in the region. However, in the process of its growth, tourism has created major environmental and socio-economic problems, including pollution, deforestation, overcrowding, economic and cultural dislocation, and local resource shortages. In other words, tourism has not been sustainable and has done little to protect the

environment in one of the most spectacular regions of the world that is also a biodiversity hotspot, unwittingly undermining the very values that make the region attractive.

In recent times, the hordes of tourist that throng the region looking to experience an oasis of tranquility and pristine environs far removed from their concrete jungles are gradually spilling to the countryside. In the wake of increasing demand for such experiences, local communities in far-flung villages are opening their homes to eager tourists. Amidst the burgeoning interest among local communities to get a slice of the pie, there is also a

growing concern of the disastrous consequences of poorly planned and managed tourism.

Ecotourism has been a buzzword in the region and only a marketing tool. Biodiversity conservation as the core of the ecotourism ethic has taken a backstage. Consequently, and paradoxically, ecotourism that is supposed to protect biodiversity has started to negatively impact wild habitats and species. There is an urgent need to correct the anomaly and bring back the much needed focus on biodiversity conservation and community benefits in order to progress towards a more sustainable development in the region.

Towards this end, one of the immediate tasks should be to empower emerging local community initiatives engaged in tourism by building their capacity in the effective management and operation of ecotourism enterprise for realizing both economic and conservation outcomes. This will also require effectively engaging with policy and decision makers for enacting legal frameworks that empower local communities towards practicing ecologically sound tourism.

- Akai Mao

Akai is currently working on developing a project on ecotourism in the region



PERENNIAL SPRINGS OF DARJEELING: AN UNDERVALUED RESOURCE

A team from ATREE undertook a survey of the perennial springs of Darjeeling Municipal Area.

A total of 32 major and minor perennial springs was carried out. It included photo documentation, mapping and interviews with CBO representatives, water users and knowledgeable persons in the areas.

Darjeeling's municipal water supply system is of British vintage, distribution is skewed and the system suffers from significant distribution losses. Perennial springs meet a great part of this shortfall. The survey highlighted the various community efforts at managing perennial springs in such a context and issues concerning

resource degradation, resource capture, pollution, upstream developments, community perceptions of change and community interest in managing these resources.

The report notes among other things that perennial springs constitute a very valuable source of water for many people especially in areas where municipal supplies are scarce or non-existent. Also, communities have evolved ways of tapping, storing and sharing of perennial spring waters and these efforts need to be appreciated, supported and incentivized. The report urges the Municipality to value this as a vital ecosystem service and take steps to conserve and manage these

springs. The report notes that Darjeeling's water crisis can best be solved by managing such local resources well and promoting efficient rainwater harvesting in addition to the large water supply projects being planned. The report will be presented to the Darjeeling Municipality for further action.

This survey was carried out on behalf of the Darjeeling NGO network and the Darjeeling Municipality. The survey team consisted of Arjun Rai, Rajen Chettri, Nishat Rehman, Anand Gazmer and Samuel Thomas.

- A photo exhibition/ summary of survey findings was presented at the World Environment Day celebrations in Darjeeling from 5-10 June 2008

Communities have evolved ways of tapping, storing and sharing of perennial spring waters and these efforts need to be appreciated, supported and incentivized

MEDICINAL PLANTS SURVEY AND PROPAGATION

Researchers from ATREE have just completed a systematic survey of medicinal plants in Sikkim and Darjeeling Himalayas. This project 'Development of strategy for participatory conservation of medicinal plants in the Darjeeling and Sikkim Himalayas' has been supported by Plantlife International, UK.

In addition to the survey the project also developed

propagation techniques and protocols for the set of eight medicinal plants species: *Nardostachys jatamansi* DC., *Swertia chirayta* Buch.-Ham., *Picrorhiza kurroa* Royle ex Benth., *Aconitum palmatum* D. Don., *Dactylorhiza hatagirea* (Don) Soo, *Panax pseudoginseng* Wall., *Valeriana hardwickii* Wall., and *Mahonia napaulensis* DC.

The propagation is being carried out with community

involvement in Chatakpur. Standardization of the propagation technique is under progress. Although we have been able to generate some data on germination and survival of some targeted species using different parameters, more fine tuning of the process needs to be done. Cultivation can only be undertaken after the propagation techniques are fully standardised.



Mahonia napaulensis and *Picrorhiza kurroa* (below) propagated through community involvement at Chatakpur

ASSESSMENT OF BIODIVERSITY AND SOCIOECONOMIC ISSUES IN NORTH EAST INDIA



A mosaic of forests, shifting cultivation patches and fallows in Mizoram
Photo: Samuel Thomas

ATREE has completed an assessment of biodiversity and socio-economic issues in the north east Indian states. The assessment has selected the states of Mizoram, Nagaland and Tripura for implementing the Ford Foundation supported small grant programme 'Capacity enhancement of NGOs for linking conservation and livelihood needs in the Eastern Himalayas region of India'.

The Northeast is socially, culturally, and politically very complex and contains great environmental and natural resource diversity that is under increasing pressure. The assessment report, an overview of the demographic, socio-economic and biodiversity issues in the region, has identified three States for the Ford

Foundation Grant which will support local NGOs to design and implement sustainable models of conservation and livelihood. In selecting the three States, the following criteria were given due weightage: human development attainments particularly looking at poverty and the lack of access to basic facilities such as electricity, safe drinking water and toilets; the presence of marginalized communities; the level of biodiversity richness and threats to the same; the strength of past and current investments made, wherein preference was given to biodiversity rich States with low investment; presence of strong local level institutions, CBOs/ NGOs as possible project partners; and, the presence of a conducive and enabling environment for

realizing investments made in the area of conservation and livelihoods.

The project aims to enhance the capacity of civil society organizations to organize households into viable community-based institutions for diversifying natural resource based livelihoods; explore and establish niche markets for rural products; link incentives generated from diversification of livelihoods and marketing of rural produce to sustainable stewardship and conservation; and, develop appropriate policy and institutional instruments that link conservation and livelihood needs in the region by incorporating lessons gained through this project.

- Akai Mao

SOCIOECONOMIC SURVEY OF PROJECT VILLAGES UNDERWAY

A household level socio economic survey is currently underway in 12 villages in Darjeeling Hills. The baseline information of 382 households will be collected during this survey. This will form the project baseline and will be used to assess progress and impact during the second phase of the Project on 'Engaging Markets to Sustain Livelihoods and Advance Conservation'.

The first phase of the Project was successfully completed and ATREE is now trying to upscale and replicate the successful activities in other forest and forest-fringe villages with financial support from the Blue Moon Fund, Virginia, USA.

ATREE has been working in Rampuria, Rambh and Upper Chatakpur (Senchel Wildlife Sanctuary), M1, Pokhritar, Koilagodam and Lower Baukhola (Kurseong Reserved Forest) and Chataidhura, Ghoom Bhanjyang and Pubung (Darjeeling Reserved Forest). Two new villages, Rampuria Khasmal and Lalung have been identified for delivery and dissemination of best practices established by the first phase of the Project.

ATREE has been working with small and marginal farmers in forest and forest-fringe villages in Senchel Wildlife Sanctuary, essentially organizing households into viable

commercial or business associations, helping them explore suitable niche markets for their organic produce, facilitating shared produce processing and packaging and post-harvest collection and marketing, and enabling households to link with financial institutions and other service providers.

These interventions are also linked to the fair trade and marketing effort that ATREE has established to try and secure the benefits of fair trade for small farmers, artisans and marginalized groups.

.- Nishat Rehman



Lalung, one of the new villages chosen for the second phase of the project
Photo: Akai Mao

CRITICAL ECOSYSTEM PARTNERSHIP FUND

The ATREE Eastern Himalayas Regional Office in Darjeeling is implementing the Critical Ecosystem Partnership Fund (CEPF) Grants Programme in the Indian Eastern Himalayas.

The CEPF programme in the region consists of a Core Grant programme that aims



at securing landscape level conservation outcomes while the Small Grants programme aims at targeted, high-impact efforts focused primarily on Critically Endangered,

Endemic and lesser-known taxa in the priority areas of Kanchenjunga-Singalila Complex and the North Bank Landscape.

Three grantee reports are presented here. For more visit:

www.cepf.net



CAUGHT ON CAMERA!

The sub-tropical evergreen Hollong-Nahor forests of Jeypore-Upper Dehing-Kajojan (ca. 570 km²) are located in eastern Assam. These are among the last remaining lowland rain forests in northeast India.

Although fragmented and highly disturbed, they are the refuge of several Endangered species such as the elephant, hoolock gibbon, tiger, white-winged wood duck and the tree *Vatica lanceaefolia* (globally Critically Endangered). The wildlife is poorly documented, and only 111 km² of the entire area is protected as the Dehing-Patkai Wildlife Sanctuary.

I am carrying out a camera-trapping survey to assess species richness of the carnivore community in these forests. Surveys in Jeypore and Upper-Dehing East Block have been completed, confirming the presence of 26 species of mammals.

This CEPF-Eastern Himalaya, WCS-India Program and Rufford Foundation supported effort has yielded the first ever camera-trap photographs of the clouded leopard, golden

cat, marbled cat and Malayan sun bear from Assam. This is also the first time that tiger and wild dog have been confirmed in these forests from photographs.

With five large carnivores (tiger, leopard, clouded leopard, wild dog and Malayan sun bear) and three species of elusive small cats (golden cat, marbled cat and leopard cat), the Jeypore Reserve Forest now holds the distinction of being the only location in northeast India where the sympatric presence all of these eight charismatic carnivores have been confirmed with photographs.

It is also only the third location in northeast India, after Manas and Namdapha national parks, where the increasingly rare wild dog has been photographed.

The other 15 species of mammals recorded on the camera traps are large Indian civet, small Indian civet, common palm civet, yellow-throated marten, crab-eating mongoose (small carnivores); sambar, barking deer, wild pig, elephant (ungulates); brush-tailed porcupine,

Malayan porcupine and an unidentified species of flying squirrel (rodents); pig-tailed macaque, Assamese macaque and capped langur (primates).

Additionally, two rodent and one bat species photographed are awaiting identification.

It has been gratifying to find all these animals still surviving in such disturbed habitat. Several of our cameras have been stolen by hunters or smashed by elephants. I can bear no grudge against the elephants, but the hunters worry me.

I hope my findings will convince the Forest Department of Assam to upgrade the protection status of this crucial wildlife habitat and watershed.

- *Kashmira Kakati*

Independent researcher

The Upper Dehing East Reserve Forest is a CEPF priority site (outside priority corridors). Four of the animals photographed (tiger, clouded leopard, elephant and capped langur) are CEPF priority species.



From top: Wild dog, leopard, golden cat, tiger, leopard cat and clouded leopard. All photos © Kashmira Kakati

BLACK SOFTSHELL TURTLE REDISCOVERED

The black softshell turtle *Aspiderates nigricans* was once considered to be 'extinct in the wild' was rediscovered in the wilderness of Assam very recently. This project is studying distribution and conservation status of this 'Critically Endangered' species in Assam and its neighbouring areas as a priority. The project team has found the existence of this rare species in as many as ten localities including National Parks like Kaziranga, Manas and Orang. A number of community temple ponds also hold this rare species.

The ongoing study is expected to gather baseline information on current distribution and conservation status of this threatened species and contribute towards long term conservation of this and several other species.

The northeast India is considered to be the hotspot of freshwater turtles and tortoises in the country. Out of 29 species of freshwater turtles and tortoises found in the country 22 species are known to occur in the northeast India. These include

one Critically Endangered, seven each Endangered and Vulnerable, two Lower Risk and six species are not yet evaluated due to lack of sufficient data on distribution and threats. This study is gathering up to date information on distribution and threats to their existence in the wild and preparing action plan for conservation and long term survival of these species in the wild.

- M Firoz Ahmed

Wildlife Biologist, Aaranyak



Black softshell turtle *Aspiderates nigricans*

Photo ©M Firoz Ahmed

WILD BUFFALO SURVEY IN THE NORTH BANK LANDSCAPE

The Wild water buffalo *Bubalus arnee (=bubalis)* is a globally threatened species and has been listed as 'Endangered' (Criteria:A2e, C1) (Population Trend: decreasing) by IUCN. Once widespread over larger part of northern and eastern India extending up to Vietnam, this rare bovine is now mainly confined to northeastern India with small numbers in Nepal, Thailand, Cambodia and Bhutan. Even in 1960s, its population was substantially reduced numerically and eliminated from the greater part of its former range. Its main concentration is now in the Indian state of Assam, where approximately four-fifth of the world population survives. This buffalo is also the ancestor of all the domestic breed of buffaloes in the world and hence, it is extremely important as a gene pool. The domesticated water buffaloes are found across the

globe and are of great value to human. Habitat loss, hunting/poaching and cross-breeding with domestic buffaloes are the main threats faced by the remaining herds in the wild. Its distribution is highly fragmented and several populations, many of which are unviable, have been formed. Most of the fragmented buffaloes are separate 'populations' as there is no corridor that links the animals. The estimated numbers in its entire range is likely to be less than 3,000.

This study will cover all the sites listed for Assam in Choudhury (1994: *Oryx*); however, in Kaziranga National Park, no fresh exercise will be done as there was census / estimate by Environment & Forest Department of Assam. The grassland in buffalo habitat is burned annually by the Environment & Forest Department to allow

regeneration and to prevent succession by woodland. This is done as tall grassland habitat has shrunk to a few pockets only where many other globally endangered grassland-dependent species such as the Indian one-horned rhinoceros (*Rhinoceros unicornis*) also occurs. Hence, the post-grassland burning period will be given special attention owing to better visibility.

With CEPF support through a small grant, the focus will be in North Bank Landscape area, especially in Lakhimpur-Dhemaji and Dibru-Saikhowa. The field work for this project would start from September – October 2008 after the monsoon is over.

- Dr Anwaruddin Choudhury

Rhino Foundation for Nature in NE India



Wild water buffalo *Bubalus arnee (=bubalis)*

Photo © Anwaruddin Choudhury

PRODUCTS HIMALAYA: FAIR TRADE INITIATIVE

The Products Himalaya store has been successful in popularizing the products of artisans and women's groups in Darjeeling. We are now trying to reach out to other women's and artisan groups and taking a fresh approach to new designs and products. A new SHG has been formed in Frymal village, Singamari while others have shown an interest to join the fair trade network. We are also working on new designs with the older Self Help Groups in an effort to boost production as well as improve their skills.

In addition to regular items, we have introduced new designs in cloth and jute bags, dolls, key chains, vanity mirrors, designer bamboo mirrors and make-up pouches. We are also planning to launch a clothes range for men and women, employing

women's groups for stitching and embroidery. We are also working on an array of hand-made cards in collaboration with CHAI project and the Edith Wilkins Street Children Foundation.

An informal market survey has revealed that although customers are satisfied with the products they would like a wider choice of products. As a result we are focusing on increasing production to meet the demand and launching at least four new products a month. There is also immense scope to tap into the growing organic foods market. The Products Himalaya website is expected to be ready soon and through this we hope to reach out and make our products accessible on a global level.

- Reena Chettri



news

Reena Chettri has joined the Eastern Himalayas Programme office. She has a Master's in Fine Arts from MS University, Baroda specializing in sculpture. Reena will manage the fair trade outlet Products Himalaya and work on product innovation, marketing & working with Self Help Groups, small farmers and artisans

Suman Rai made a presentation on 'Access and Benefit Sharing Opportunities from Biological Resources in the Eastern Himalayas' at a University Grants Commission supported workshop on 'Exploration, Exploitation and Conservation of Biodiversity in the Eastern Himalayas' held at Darjeeling Government College on 2 June 2008

Prof Jan Salick from the Missouri Botanical Garden and **Dr. Shonil Bhagwat**, Fellow, Oxford University visited the ATREE EHP office on 20 May to discuss issues relating to and possible collaboration on climate change studies in Eastern Himalayas

Arjun Rai, Rajen Chettri, Nishat Rehman, Anand Gazmer and Samuel Thomas presented a photo exhibition on 'Perennial Springs of Darjeeling: an undervalued resource' at the World Environment Day celebrations organized by the Darjeeling NGO network and Darjeeling Municipality from 5-10 June 2008

Prof Kamal Bawa, founder Trustee and President met with the Honorable Chief Minister of Sikkim **Dr. Pawan Chamling** and discussed issues relating to biodiversity in the state. He also expressed ATREE's keen interest to work with the authorities and civil society on conservation issues in the state

Akai Mao has completed an assessment of biodiversity and socio-economic issues of north eastern states from a review of secondary sources. The report has been submitted to the Ford Foundation. Based on this study, three states—Nagaland, Mizoram and Tripura—have been selected for intervention. ATREE will work on building capacity of six civil society organizations in these three states as part of this project.

Niraj Kakati has moved from the Bangalore office of ATREE to the newly established ATREE Field Office at Guwahati. Niraj will coordinate work on the World Biodiversity Heritage Programme in two sites in Assam—Kaziranga and Manas.

NEWSLETTER

FEEDBACK

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DONORS AND PARTNERS

West Bengal Forest Department; Sikkim Forest Department; Assam Forest Department; Department of Biotechnology, Gol; Ministry of Environment and Forests, Gol; Blue Moon Fund, USA; Ford Foundation, Delhi; Critical Ecosystem Partnership Fund, Washington; Sehgal Family Foundation; World Biodiversity Heritage Programme; Save the Tiger Fund, USA; Plantlife International