



People and conservation

I recently had an opportunity to travel round the Agasthyamalai mountains and visit some of the last remaining lush and beautiful forests of Kerala. The whirl-wind tour also took us through large stretches of abandoned tea plantations where not everything was so lush and beautiful. Many people who live here in a remote unconnected world are on a hand to mouth existence. The government is distributing land rights to people for housing in these areas but most of the people want to move out and live elsewhere. In situations where such plantations are inside protected areas and no development is ideally possible one may think of leaving the tea to the forests and provide people with a more conducive environment elsewhere. But that is easier said than done. Where is the land for these people, how will one counter

the all powerful union and will the government have the 'will' to pay compensation for biodiversity? These and many other questions will have to be answered sooner or later if we want actions to be taken to



An abandoned plantation
Photo: Chetana H C

conserve our biodiversity and people's needs, in a changing world.

On the Tamil Nadu side of the Agasthyamalai, it was another eventful four months. The KMTR has a new Field

Director; it was visited by the IUCN team who came as part of the larger effort to make the Western Ghats a World Heritage site, the annual fair at the Sorimuthian temple happened in August and

ATREE conducted its first conservation science course at its new field station. In the midst of all this we also had to hear the sad news of several wild boar and sambar killed by electrocution close to the forest; do we then have to blame the wild dogs for eating tiger prey? The human ones are more potent.

I hope you are continuing to enjoy reading Agasthya and as always we hope you

will give us those little tips and goodies that have kept us going so far.

Wish you all a peaceful New Year!

T Ganesh

Cat (snake) on a hot tin roof !

What would one associate with the phrase "Cat on a hot tin roof" ? - Restlessness, hopping, jumping etc - I bet it's the same for the phrase "snake beneath the cold thin roof", particularly if you find yourself sitting under it!

Little over two months ago, Chetan, Ganesh and I found ourselves in one such situation. The famed dilapidated bungalow, known to have housed Somerset Maugham and others, can be found nestling amidst thick evergreen forests and an abandoned tea

estate in Nettrikkal. Eventually, this was our make shift camp for a three day stay in the forest while accompanying Chetan who was conducting regeneration studies in these forests. A cold night had set upon us and we were stuffed into our sleeping bags when I spotted this sparkling yellow snake moving under the roof. A morale boosting assurance from Ganesh led us into a few brave minutes of trying to sleep under this dangling-darling, but, our good old associations with the snake crept in and we

found ourselves scampering for safety and later re-located the snake a short distance, about twenty feet away in some bushes. Sanity was restored for the rest of the night, except for the chilling winds. Then came the next cold evening and our thoughts were of course on the grand dinner we were all waiting for but also in the background the snake making another appearance was not that far away. What happened? Please see the next issue!

Prashanth M B

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Where do birds go when it rains?

An oft encountered question as we scurry for cover when the heavens open. The answer depends on which bird species and where? In Bangalore, the rain-soaked mynas and crows may seek shelter within the sparse canopy of fast disappearing avenue trees or under the rafters of our roof. The birds of the 'rain' forest however respond very differently as rain is part and parcel of their day.



A Black-lored Tit gleaning in the rain.
Photo: Vivek Ramachandran

I was afforded a unique insight and perhaps an answer to this long ranking question. While

Drongo was sallying after a dragonfly that had been disturbed by the falling rain. The intensity of the downpour increased and soon more species joined in. A whole host of insects had been disturbed by the rain falling on the foliage, Minivets and Flycatcher shrikes were taking a toll on them and were soon joined by the Canary Flycatchers. The rain continued for more than 2 hours and I could hear the mixed-hunting party continue to forage through the vast stretch of canopy. The absence of frugivores in the flock was conspicuous; they perhaps preferred the sheltered confines of the understory? As the rain abated, a few birds were seen sitting on exposed branches with their feathers puffed out under the setting sun. Though I was soaked to the skin and cold, was glad to have had company and a glimpse of their extraordinary lives...

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Vivek Ramachandran

Revealed to think?

Every year students from the Agricultural University at Killikulam near Tirunelveli visit Agathiyamalai CCC at Singampatti to see and learn about our work on enriching the local biodiversity and conservation education among the kids of the farming community. This time we practiced a 'see-do-learn' type of orientation for the participants. Being undergraduate students of Agriculture, the participants were asked to interact with local farmers about farming practices in their village, use of fertilizer and pesticides, their thoughts on biodiversity in agricultural fields, organic farming and future plans. After a few days of knocking the doors of

use. It appears that farmers knew the links of organic farming to the health of their family. Yet, most farmers use conventional methods where they dump pesticides more so on chilly crops which experiences high levels of pest attacks, and also kills non target species such as frogs, snails, snakes, garden lizards and sometimes even mongoose and other birds. During the interaction with interns, farmers revealed that they knew about this, but were unable to take any precautions to prevent loss of non-target species. Some of the elderly members of the family especially 'grannies' said that fallow lands, fences with green plants, field bunds and canals were the untended gardens for greens and medicinal plants. Village elders say that these areas don't exist anymore and the present generation do not have time to source them.

Students felt that the knowledge associated with such natural resources are also vanishing from Singampatti. They requested the farmers to minimize the usage of chemical inputs, by practicing modern eco-friendly farming methods such as System of Rice Intensification (SRI). It was indeed revelation of



Interns interviewing a farmer
Photo: M. Mathivanan

the houses in Singampatti, the students came up with a lot of first hand information. It seems that very few farmers in Singampatti village were practicing organic farming in their fields and they reserve the harvest solely for household

sorts, on how in the name of increasing productivity, we spoil our farmlands and its biodiversity.

M. Mathivanan

Sighting of the 'elusive'



First camera-trap picture of the Nilgiri marten at KMTR.

One afternoon during my early days in Kakachi, dark clouds began to gather and a cool breeze started to blow. The sun which was shining brightly was soon engulfed in the dark clouds. I decided that perhaps staying inside the forest wouldn't be a good idea and started heading towards the road. As I reached the road, there was a sudden movement in the understory nearby and within seconds an animal emerged out and crossed the road less than 10 meters from where I stood. My eyes quickly noticed the yellow patch under the neck of the small animal and the long tail. I knew I had spotted the Nilgiri marten. With two leaps the marten crossed the road and disappeared into the forest. I was thrilled, this was a lifer for me, to see this beautiful creature, even though I first recorded it on a camera trap in early 2005. My other colleagues have reported sighting the marten in similar habitats mostly along streams and also in the tree tops. It left me wondering how hard it would be to study such a cryptic, rare and beautiful animal when a mere sighting is so difficult and far apart in time. We need to know and understand these creatures and see the role they play in the dynamics of the forest. Any takers?

Chetana H C

Owling with a purpose

I started my stint as an intern last summer in Agathaymalai community conservation center which is a requirement for my MSc in Environmental Sciences in France. Nature and wildlife fascinate me and I would like to work towards the long-term conservation of threatened habitats and species. This assignment with ATREE allowed me to discover the domain of animal and environment protection.

My project was to find an alternative method to control pests inside the paddy field through rodent and insect feeding owls. A great number of farmers in the landscape use insecticides and pesticides, when an eco-friendly method could be possible thanks to the proximity of the tiger reserve forest and its wildlife.

This meeting with wildlife, ecologist and local people reinforced my desire to work towards nature protection and encouraged me to learn more about this mysterious and great world. My work in the vicinity of Singampatti helped me get acquainted with its people. They were curious and welcoming and often times greeted me as "velakari" (white woman) with big smiles.

I had so much to take from their simplicity and happiness in what they do. I have discovered the owls and birds' world with the help of ATREE researchers. I only hope my work will help the farmers in return, by finding an efficient, eco-friendly method to protect their crops and the wildlife in this beautiful area.

Cloé Lucas

Of Heroes and Herons...

I had the good fortune to volunteer for a water-bird survey of the Tamiraparani River basin conducted by ATREE for a fortnight this August. The waters of this great river had been impounded high up in the serene hills of the Kalakad Mundanthurai Tiger Reserve, its waters diverted along the length of its course by man-made canals to irrigation tanks. The resultant effect appeared to have led to large congregations of water fowl. We were indeed fortunate to see a number of early migrants and were able to identify a few species that had not been recorded in this area.

Unfortunately, we came across signs of man-animal conflict at a few tanks. At one tank we noticed the distressed flapping of a grey bird on an island of reeds which was at least a good three hundred yards from the road we were on. I cannot swim to save myself leave alone a bird trapped in no-man's land. Abhisheka and I watched helplessly as the bird struggled, suspended by fishing line by one ankle on an *Ipomoea* plant. Moved by our distress, our driver, Jyothiraj, gallantly volunteered to swim across the weed infested tank on a rescue mission. He plunged into the



Jyothiraj: the hero of the day.
Photo: Saleem Hameed

murky waters with little coaxing. With each stroke he seemed to be getting more tired and eventually, after what seemed an eternity, he reached the island, much to our relief. He cut the bird free and attempted to release the hapless creature. The bird, a Night Heron, lay splayed out helplessly on the sand-bar next to Jyothiraj. With limited choices Jyothiraj headed back across the tank propelling himself with weak backstrokes of his free hand whilst holding the bird aloft like a flag. The exertion was telling as he bravely trod water to reach the bird back to us.

We headed for the nearest town to pick up emergency medication and food for the exhausted heron. A grinning tired, and, a tad smelly, Jyothiraj deposited us and our patient at the ATREE field station. The bird made an uneventful recovery and was released in the morning. Regardless whether the heron is grateful for its second lease of life, I raise a silent toast to its savior whenever I see night herons silhouetted against the lilac and orange evening skies, squawking their way unhurriedly to their feeding sites.

Saleem Hameed

The Millipede Extravaganza in KMTR

The past 3 weeks in KMTR and Singampatti have been the most exciting and educational in my life. After my B.Sc from Mount Carmel College, Bangalore, I decided to take a year off from the regular academia to learn more about field ecology and conservation science. That's when I came across ATREE's ACCC project and in no time I mailed Mathivanan. I came to ATREE as a volunteer for the SMK festival. I volunteered for the road-kill survey, occupancy studies and monitoring millipedes. Before coming to KMTR, my acquaintance with millipedes was through the internet and few books.

For the millipedes study, we laid some ground quadrates in our marked segments. But to my surprise, the millipedes which are mostly terrestrial and litter-dwelling, were all arboreal and none could be found in the quadrats. I started questioning their strange behavior and searched for papers about these animals. But the number of my questions increased and very few answers. My discussion with Ganesh gave me an opportunity to study these wonderful creatures during the Conservation science Course.



Millipede watching
Photo: R Smrity

I had observed that these animals show some temporal pattern in their position on trees and are predominantly inactive during the hot days. But they become active during evenings or when the weather was cool, windy and humid during daytime. During the short stint I did a few observations in search of answers for a number of questions.

The project improved with more inputs from Aravind. I found a definite pattern of spatial and

temporal arrangement in the millipedes which can be associated with forest type. I measured girth of the tree, canopy cover, bark colour and texture, leaf litter and their position on the tree as parameters for understanding their spatial distribution. We could find clearly that the population was more dispersed in dry evergreen forests and there was no directional preferences on the tree trunk shown by the millipedes. In dry deciduous forests, they were more clustered and showed obvious preference to SE-SW direction.

The behavioural study of the millipedes was another challenge, as the animals would show active movement only during the night, when the weather was cooler. I had to sit with the millipedes, documenting their behavior right up to 9.30 pm. Many a time, the rain gods disappointed me by reducing my sampling duration.

Overall, this was a great learning process and I would love to gather more information about these animals and learn more ways to comprehend the data I have generated by observing them.

R Smrity

Monsoon magic


I woke up on a wet morning after the first rains hit Singampatti to witness a sudden spurt of floral blooms on the ground outside the living quarters at the new field station. On closer inspection the bloom made my eyes open in wonder. There were thousands of winged termites digging into the ground looking for mates which reminded me of the flower decoration during the Onam festival. I had watched these insects the previous night swarming around the lights. We did not have to worry about sweeping up the place as garden lizards, House crows, White-headed Babblers willingly went ahead with the clean up. As the rains continued, other creepy crawlies came to life. Little and pretty red 'Velvet mites' started moving around the courtyard brightly punctuating an otherwise plain ground. While young ones of Giant centipedes, little scorpions, baby Bark Geckos enjoyed the coolness, the naughty White-headed Babbler chick loved getting drenched in the rain as it watched and strayed toward Black Drongos much against the wishes of its parents. The pond in front of the living quarters started filling and the male frogs sang the whole night.



'Rangoli' termites
Photo: Abhisheka K

The water in the canal next to the field station flowed in full strength but this did not deter the Checkered keel backs and the Buff-striped keel backs from leaving their homes in the canal. As I watched these little creature appreciating the arrival of the rains I felt glad that I was not in the city forced to stay indoors.

Abhisheka K



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Forest trails- the story tellers of the jungle

It is easy for the inexperienced eye to conclude "Oh these forests have no animals" when they don't see any animal. Contrary to their notion, the exact opposite seems to happen to a person who is interested in reading the tell tale signs the animals have left behind and unravel the drama that would have been enacted by the denizens of the jungle. Picturesque descriptions of such stories have been excellently narrated by Jim Corbett and Kenneth Anderson in their numerous classics. Most of the stories they encountered seems to still be the same for any keen observer who steps into the forests especially on to the jeep tracks or beat roads, bridle path as its called.



Bear pugmarks on the clayey road
Photo: K S Seshadri

Recently, as part of accessing the impact of Sorimuthian pilgrimage on the forests; a team undertook extensive occupancy surveys along the trails near the main road where there is extensive vehicle movement due to the festival as well as in the forest. Teams of 2-3 individuals walked on these tracks/trails and documented any signs of animal movement in its various forms ranging from hoof or pugmarks, scat, scent marks, scrape marks etc . Each such encounter invariably had some small little story to tell and was indeed one of the factors which kept the enthusiasm going.

On one such survey along the "Puckel's path" our team began its survey around 1530hrs, rather late in the evening. We soon encountered a lot of evidence of chital and sambar.

At some distance from the main road, we came across fresh, beautifully preserved pugmarks of a sloth bear. It had very casually ambled along the road which was laden with fine clayey soil brought in by the recent rains making it perfect for imprinting of the human-like paw in it. The marks seemed so fresh that for a moment, we all looked around to possibly catch a glimpse of the bear which

might just be around the corner! The bear had walked on the road for more than 100 meters and all of a sudden, we saw pugmarks almost one fourth the size of the adult and realized that the bear was accompanied by its cub. The cub, as per the discontinuity in pugmarks, had come almost all the way piggy back and had got down and walked with its mom for a short distance before they had turned into the forest and disappeared in the mix of grass and thorny scrub. Such are the countless stories that lay waiting to be stumbled upon by passing naturalists .

K S Seshadri

Snippets from field

- The tiger reserve has a new field director in Dr. Malleshappa
- The field station has shifted from Vairavikulam to its new eco-friendly building and is fully functional.
- A Certificate course in Conservation Sciences was held at the ACCC between the 14th and 21st of August. We have a special issue with contributions from the participant. Don't miss it!
- A pair of Indian courser was seen near Veeravanalur railway station. This species is disappearing because of land use change in the region.
- 31 Black-tailed godwits and 15 Oriental Pratincoles were spotted at Kadamba Kulam, Mukuperi village on 25th September 2010 during a survey of wetlands along Tamarabharani river.
- 14 Common redshanks were seen at Nainarkulam, Tirunelveli on 21st September and 64 in Perungulam, Sivakalai village on 24th September 2010.
- Its sad to announce the loss of a Indian Flying Fox roost at Padmaneri. All the three trees that were used by the bats have been cut down for road expansion.
- Nayanarkulam in Tirunelveli town had about 1500 birds belonging to 30 species and it looked like a mini bird sanctuary.

Bird Survey: Call for Volunteers

A water-bird survey is planned on 22—23 January 2011 in Tirunelveli and Tuticorin districts. Keen birders are welcome to participate.

Write to tganesh@atree.org for details.