



A feel for nature

The rains have been so good that the short dry spell between the two monsoons was reduced to few days of sunny weather in KMTR. Monsoons in the higher hills brings much water in the rivers creating spectacular water cascades and the winds brings in light rain in the dry lower hills making it very pleasant. No wonder it's festival time along these rivers. We report on one such; the Sorimuthaiyan temple festival inside the reserve in August along the banks of the river Tambraparni. The festival attracts nearly half a million people who bring in tons of litter into the reserve. ATREE along with the Forest Department, the Temple Trust and help from the District Collector got a ban on plastics



Rain bearing clouds that bring water to the villages looming over the mountains
Photo: Jahnvi Pai

in KMTR. An exhaustive no-plastic campaign to highlight the ban was done and Soubadra writes about it in a special supplement. A report on the campaign is available at ATREES' web site.

We took a bunch of excited kids from Singampatti to the different forests in KMTR; it was an eye opener for them. Their encounter list went from

fungus to monkeys. These rural kids who live in the foothills rarely get a chance to venture into the woods that are in their backyard. If only we could offer them an opportunity to frolic and learn in the wilderness and give them a voice it may go a long way to build a group of young conservationists around the reserve. In a similar vein, how do people from the region value nature and KMTR? Allwin Jesudasan who recently joined us, shares a glimpse of what they feel.

I hope you are enjoying reading Agasthya. Please do send in your comments for us to improve and keep evolving.

T. Ganesh

Grooming young ambassadors for conservation

As part of the Singampatti conservation education program we organized a week long camp for the Green Brigade in September. The camp involved several activities that included helping in the nursery, watering plants in the community area, painting banners for home gardens, understanding plant identification and of course a trip to the rainforests in the hills above their village. We had a class on identification of different types of leaves like simple and compound leaves since trees are always difficult to tell apart unless one follows certain basic rules. It was amazing how all the children could



The Green Brigade in Kodayar
Photo: T. Ganesh

separate the leaves not only into two categories but also further subdivided the confusing compound leaf arrangements. This was followed by the field trip. Because of limited space and financial constraints we could not take everybody. A test on "biodiversity" was conducted

and only the top 10 children were on the trip. The trip was a fun-filled exploration as recounted by one of the students (see Velu Murgan' article). The children enjoyed the week long camp and are waiting for the next set of holidays to learn more about nature. Meanwhile we also encouraged them to come in on weekends to the field station and browse through books on plants and animals or even go with some of the researchers to help out in their work thereby getting to feel nature individually and collectively.

M. Mathivanan

Inside this issue:

Thin lines between conservation, livelihood and economics	2
Balsams in the canopy!	2
Chugging along a heritage line	2
A day from my visit to KMTR	3
Nature in its entire splendor	3

The silent crusader	3
A day in the life of a fuel wood collector	4
Correcting a historic wrong	4
There is more to plants than greenness	4

Thin lines between conservation, livelihood and economics



Landscape matrix of forests and agricultural land defining the lines between forests, livelihoods and conservation
Photo: Allwin Jesudasan

As we went along the eastern boundary of KMTR to test run questions to understand the perspectives and attitude of villagers towards the forest, we noticed a few things which I had not expected to. The farmers in these villages seem to have a fairly positive attitude towards wildlife conservation despite dis-services such as frequent crop raids by wild pigs and sambar. One particular farmer spoke about wild animals' right to exist even though he had to send one member of his family every night to protect his crop from raids. Another farmer hopes that his children can see animals in their natural habitat and not only in books and zoos.

Forests, have clearly appealed to their hearts.

To conserve biodiversity, conservationists have often attempted to link forests with a variety of services that man receives from nature. Intentionally, or unintentionally, this has resulted in many people thinking that forests are worth saving only if it is profitable. Some results of this link can be seen in the villagers' attitudes. Most villagers here, depend on land based occupations for livelihood. They relate to services from the forests to availability of water, rain etc. almost like school children reciting a poem. There is a

risk that this capitalistic attitude might overshadow their selfless admiration for forests.

Human ingenuity will find alternate economical ways to the services forests provide today, and it may not be profitable for forests to remain. Once the link between economics and forests disappears, people may not have a reason to conserve it. Investing in retaining peoples' intrinsic love for the forests will have long term conservation value than investing to link forests with their wallets.

Allwin Jesudasan

Balsams in the canopy!

Its rain time in the hills and if you brave the leeches and walk through the rain forests in Agasthyamalai, you will notice either in the dark understorey, or on the sides of the paths and streams, plants with flowers of different shapes, sizes and colours beyond your wildest imagination. These jewel plants are grouped by botanists into orchids, balsams, gesneriads! Interestingly, orchids and balsams have some commonality, a spur which is a specialized



Impatiens auriculata
Photo: R. Ganesan

structure in the flower that conceals nectar and is available only to specific pollinators. The short and stocky spurs of balsams resemble the beak of a parrot and hence are called 'Parrot billed balsams'. Though we know that orchids grow on the ground as well as on trees, many of us do not know that some balsams perch on trees in the canopy of the wet forests. Though balsams are not specialised to grow on trees as compared to orchids they still manage to cling on the trunk for reasons completely unknown. Only half a dozen such epiphytic (that grow on trees) balsams are found in the Western Ghats. Interestingly, these epiphytic balsams of Western Ghats share a common ancestor with African epiphytic balsams probably because the two continents were part of Gondwanaland in the past. Being an epiphyte, precariously perched on the tree trunks of wet forests in the high altitudes of Western Ghats they often go unnoticed. Let's give some thought to save these rubies and emeralds amidst the rain and mist.

R. Ganesan

Chugging along a heritage line

The Agasthyamali is separated from the Periyar plateau by the Shencotah pass. A highway and a railway line runs through this pass. The meter gauge line was built over 100 years ago in 1901 and still stands in perfect condition. We took the slow train through the pass. On a Sunday morning it was fairly crowded and it took 2 hours to cover 30km to pass through the mountains from the paddy field landscape of Shencotah to the rubber dominated Punalur in Kerala. It's an important line no doubt, rice bags were loaded for Kerala, fuel wood to Tamil Nadu and people went visiting relatives across the border. There were also snatches of history along the route; water stations for the now forgotten steam engines, beautiful British made arch bridges and of course some long tunnels. Now there are plans to convert this line to broad gauge, which means strengthening century old bridges and possibly widening the tunnels leading to considerable disturbance



The spectacular Aryankavu viaduct
Photo: T. Ganesh

in this landscape. By converting there would be direct trains from Chennai to Quilon. Is that reason enough to convert this line when there are many direct trains through the much faster main line? Can't we keep this as a heritage line?

As we chugged along the winding track, teak and rubber dominated the landscape especially along the friendlier terrain with natural forest pushed up steep slopes. Effectively the link between the two large forest patches is non-existent. The rail and road link has facilitated development, settlement and movement of goods and people across the two southern states. In turn, it has prevented large mammal movement across this landscape. Elephants have stopped using this pass and others animals might also have. But all is not bad, teak and rubber could still serve as important forest corridors for a number of animals only if we could give protection to these patches and prevent any poaching in this tenuous border region.

T. Ganesh

A day from my visit to KMTR



The sacred site of the Kanis
Photo: Sreetama Gupta Bhaya

As we walked through the thickly covered forest slowly talking with a local kani tribal accompanying us in the Agasthyamalai hills, I

sensed harmony, harmony of nature and tribal way of living. As we interacted more with the tribal community, it came across that not everything was in perfect harmony. We discovered the 'how and why' of several conflicts that Kanis have with the forest department and how the processes of development have isolated them from very basic rights. Tracing the history of the settlement, it was found that the forest department had settled them in the forests as plantation workers and given rights to cultivate tapioca. It is indeed an irony that the same department has subsequently made several attempts to evict them in the name of conservation, to create inviolate spaces.

The obvious question that comes to mind is why we have conservation policies that do not consider communities as an important stake-

holder. History points that communities and wildlife have coexisted though equations have changed now. There are several shades of gray one is to grapple with, to find an effective solution that reconciles conservation with community priorities. For one, without any tenurial security and decision making authority, what is the incentive for the community to participate in a top down model of governance? A perfect partnership can emerge now between different stake-holders to come up with a management plan of the protected area through a true participatory process by virtue of which the community does not see the conservation of the tiger as a negation to their livelihood but a holistic process where such conservation would also entail their participation and secured livelihood options.

Sreetama Gupta Bhaya

Nature in its entire splendor

Rain is all-important for living things! If not for forests, life will disappear from this planet. On 29th September, we saw the very forests that bring us rain.

To study and protect plants and animals there is a brigade – Green Brigade. We, the 'brigadiers' went on our way to Upper Kodayar in the Western Ghats to learn more about plants and animals. As we climbed the mountain, we heard the birds chirp, the sound of swaying trees and felt the cold breeze making us



A trek through the evergreen forests
Photo: T. Ganesh

almost forget ourselves. The trekking path that we took was covered with grass and trees. We saw a VEDIPLA tree (*Cullenia exarillata*) that had a ladder put by ATREE to study the forest canopy. The view from the top of the canopy revealed the picturesque Aindu Thalai Pothigai, Agasthyamalai and Kudrevetti Estate. We carried on with our trek and to our delight, saw dancing peacocks, jungle fowl, spotted dove and a hare. On our way we also saw a beautiful flower. It seems it doesn't lose its beauty for months even if it is plucked from the plant. On the

trip we also saw different types of kadu (forest): pacha kadu (evergreen forests), yela udirkadu (dry deciduous forests) and teak kadu.

After passing through Nalmuk, we reached ATREE's field station at Kodayar and recollected all that we had seen. After taking some group pictures we went to the Upper Kodayar dam and then caught the 5 pm bus to our homes. On our way we saw a herd of Gaur, Nilgiri Langur, Emerald Dove and Babblers. We did not feel like leaving such a beautiful place. This trip was an extremely good one and we look forward to visiting this place again.

Velu Murugan
(translated by Allwin Jesudasan)

The silent crusader

Very often in the midst of an activity or event, the effort of some dedicated individuals and organisations go unnoticed. We are chronicling such individuals who have done considerable environment conservation work. During the anti-plastic campaign, one man who has been silently doing his best to clean part of KMTR from trash became associated with us. Mr. Sundaramahalingam is a botany teacher and NSS organiser from the Teerthapathy High School in Ambasamudram. He has been taking his NSS students to the Sorimuthaiyan temple for last several years to help organise the crowd and do a post-festival clean up. We

met him while in action last year and instantly decided to work together during the next season. Mr. Mahalingam has been a strong motivating force for the students. He too volunteers with the students and stays with them. ATREE assisted him and his team by providing pokers and T-shirts for the clean up and also asked the volunteers to carry placards and tell people not to litter the forest. When asked about what keeps him



Mr. Sundaramahalingam with his students on a anti-plastic campaign
Photo: M. Mathivanan

coming year after year to the festival and organise the collection, his response was mixed between paying his obeisance to the deity and an overwhelming drive to do some service to the temple and its environs. We wish him good luck and long years of service with that remarkable and symbolic Tirunelveli moustache that he sports!

Soubadra Devy

From the archive

A day in the life of a fuel wood collector

Some years back, in an attempt to understand the dependence of marginal communities on forest resources around KMTR, I accompanied two women fuel wood collectors into the forest. We set off armed with sickles and lunch boxes to Puliamaratheri which was the designated collection point for the day.

The women wore full-sleeve shirts to protect their sarees from the thorns. On the way we stopped at the canal to fill our bottles with water. We walked for about half an hour and then proceeded to have a part of our packed lunch as breakfast. We walked up a hill for another hour and on the way they pointed out many of fuel-wood species that they collect. We reached a junction where they split up and went in different directions to collect wood. They cut the old branches of thorny bushes and would



A fuel wood collector
Photo: R. Ganesan

call out to each other at regular intervals. This I found out later was to scare away wild animals and to know each others whereabouts. After another two hours of collection they started to tie the wood into bundles using lianas. They had collected about 40 kgs of wood by the end of the day. We then ate the remaining of our lunch and rested for a while. By now it was time to get back to the village. There was no conversation as the bundles were heavy which made descending difficult. After an hour of careful walk they reached the canal and rested for a while before cautiously crossing the canal to reach their village. They proceeded to sell the wood for Rs 60 per bundle and this was their only source of livelihood!

Joseph Irwin

A tenuous link

Kolundumamalai is a beautiful hill situated south of Cheranmahadevi. It occupies about 623 ha of scrub and boulder country that is isolated from rest of KMTR by a deep irrigation canal. A unique feature of this hill forest is the dense impenetrable thorny scrub that seems ideal for small animals. There was enough evidence of animals. Sambar pellets were every where and sure enough we also saw a sambar move away silently unlike the mad dash it makes in more friendlier habitat. There was evidence of bear, mongoose, porcupine, civets, leopard, wild dogs and other smaller mammals apart from many birds. As we sat over the only waterhole near a farm and watched sambars and wild boars come cautiously for a drink under moon light we contemplated the future of this beautiful hill.

Kolundumamalai is surrounded by large privately owned plantations. Their owners are putting up electric fences to prevent wild boar and other animals damaging their crops. Old timers say the hills have become inaccessible because every inch of the land around the malai is fenced. But there is still some hope - the canal that separates the hill from KMTR is being bridged for over 500m. This would probably allow animals to move back and forth but to do so one would need a fence free corridor. This is the key for the malai to reintegrate with KMTR and remain ecologically part of the reserve in a fast changing landscape.

Arun Kumar S.

There is more to plants than greenness

Plants are probably the most conspicuous life-forms in many ecosystems. Many habitats and ecosystems are classified and named based on the characteristics of plants that exist there. Yet, most of them seem quite indistinguishable to an untrained eye. This is probably due to our inability to see fine differences that exist between them.

During the last field trip, while we were noting the characteristics of plants to be incorporated in the bi-lingual field guide, I learnt from Dr. Ganesan, the fine art of differentiating plants from one another. Once I actually started noticing, plants that otherwise looked similar, stood apart from one another! Bark colours and patterns were so distinct, they could be used to identify some species. Though taken for granted, it is known to many that plants differ from one another in terms of bark and leaf types. What came as a surprise was that they also exhibit myriad shades of green. This array ranged from light green to dark green to yellowish green to brownish green to even bluish green!

This field visit was truly an eye-opener and gave me a new perspective to look at forests.

Jahnvi Pai



The forest canopy coloured in different shades of green
Photo: Jahnvi Pai



The scrub forests of Kolundumamalai on a cloudy morning
Photo: Arun Kumar S.

**ASHOKA TRUST FOR RESEARCH IN
ECOLOGY AND THE ENVIRONMENT**

659, 5th A Main, Hebbal, Bangalore 560024
INDIA

Phone: 91-80-23530069; Fax: 91-80-23530070

E-mail: vivekr@atree.org

Website: www.atree.org

Editor: T. Ganesh

Associate editor: R. Vivek

Editorial team: Aditya Bhaskaran, Allwin Jesudasan,
Savitha Swamy

Design and presentation: Jahnvi Pai



The Kalakkad Mundanthurai Tiger Reserve landscape

Plastic free KMTR and the emergence of a conservation network



Clean KMTR

A special supplement of *Agasthya* on the anti-plastic campaign

How can we make KMTR plastic free? The consensus was - get a 'ban' on plastics especially when five lakh devotees visit the Sorimuthaiyan temple inside the sanctuary during the Aadi Amavasai festival in August. With this festival round the corner, we had only one donor from Bangalore to support us which happened because a child inspired by his visit to KMTR, influenced his father to make the donation! We however had the full support of the Field Director of KMTR who facilitated our effort and wrote to the district collector to announce a plastic free festival. We also solicited letters of support for the ban from all the civil society bodies such as the Rotary club, Lions club, Pensioners Union, Panchayat leaders of the region. With such overwhelming support, the District Collector issued a letter banning use of plastic in the reserve.

Dissemination of the announcement was the next critical step. We worked with the press which comprised of Tamil and English dailies and TV channels to highlight the ban. Most dailies carried the news of ban on the front page. Atreians were in many channels talking about the woes of plastic. SUN FM which is a household name in Tirunelveli district offered a free slot during prime time for an interview with Dr. Ganesan by the popular Radio Jockey Kirthika Ganesan. ATREE also facilitated a press meet with the Conservator and the Raja of Singampatti, also a trustee of the temple, who emphasized on the ban. ATREE tied up with Arumbugal Trust a local NGO to highlight the ban through street

plays in nine villages which see an exodus of people to the festival. ATREE sought help from six education institutions to organize processions in key towns. The Raja also helped us talk to stall keepers around the temple to prevent use of plastic bags and cups.

Meanwhile, the fund raising team managed support in various forms. Rotary club sponsored hiring of garbage bins, Bell pins and Sivagami Gold Station sponsored caps and T-shirts for the volunteers. Many shopkeepers came forward with paper cups to replace the plastic ones for hawkers selling tea. Tamil Nadu Transport Corporation offered free transport for the volunteers. The Forest department and Temple Trust extended their hospitality and subsidized food for the volunteers.

ATREE replaced plastic bags with cloth bags from the devotees. Local businessman matched the effort by giving large number of paper and cloth bags. About 500 student volunteers were mobilized on a relay basis that helped us check devotees for plastic bags, run socio-economic and vehicle surveys and help in post festival clean up. Students also sampled water

of the Tambaraparni River which takes a beating during the festival for BOD and E.coli studies. Though it would take some time for the ban to soak in to peoples and traders mind, it was clear from our social survey of pilgrims that they would prefer to bring in their own vessels or bags as they did previously but it's the traders and manufactures of cheap plastic who need to stop dishing out such stuff to the public. For instance in one small plastic bag of a pilgrim we removed eight poly bags that separately contained flowers; incense stick, itself wrapped in plastic; matchbox; coconut and lemon.. Instead we gave her one cloth bag. We told her not to bring in plastic next time, her response was crisp; tell that to the shop keeper!

Through this campaign, the public realized bringing plastic inside the sanctuary is bad and would not be allowed henceforth. ATREE on the other hand has seen an emergence of a 'Conservation Network' of people and institutions who are concerned about KMTR. The network may now seem informal, but if nurtured with more activities it could emerge as powerful consortium for conservation in the region.

Soubadra Devy



Devotees through the Sorimuthaiyan temple



Private vehicles and buses entering the Sanctuary



Plastic and other waste dumped in the Tambraparni River



The camping site within the sanctuary



The Raja's customary durbar



Volunteers from the Arumbugal Trust sensitizing the villagers



R. Ganesan and Soubadra interacting with the press



Anthony educating the volunteers



The Field Director of KMTR addressing the press



An awareness rally by school students in one of the target villages



Press coverage of the ban and festival



Hope: A young boy throwing garbage in a bin.



A man carrying a cloth bag given by ATREE



Post-festival clean up by ATREE's volunteers