

# NEWSLETTER of the NILGIRI NATURAL HISTORY SOCIETY

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- 1 Tolerance in Human-Wildlife Conflict
- 3 Beekeeping in Gudalur
- Reviving traditional healing systems  
working with vaidyas and medicinal  
plants in Gudalur valley
- 4 On exploring the cultural heritage of  
the Nilgiris
- Gudalur – a backdrop
- 7 International Conference on Cycad  
Biology, Shenzhen, China
- 8 Migrating through The Nilgiris

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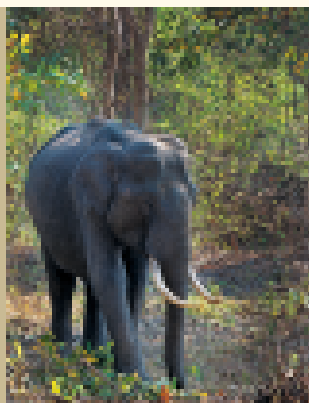
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### Asian Elephant *Elephas maximus*

The Asian elephant, *Elephas maximus*, is smaller than the African. It has smaller ears, and typically, only the males have large external tusks.

Photo credit: K. Chandra Sekar

# EDITORIAL

Greetings from the Blue Mountains!

We are happy to bring out the 4<sup>th</sup> edition of our newsletter; incidentally we are still looking for a name. One of the fascinating aspects of the Nilgiri biosphere reserve is its diversity, no two regions are alike and they are yet a part of an intricate design carefully woven together. The diversity of the biosphere lies in its social ecological and cultural fabric. The design of a closely knit biosphere has helped a great deal for conservation and it is necessary to keep the diversity in focus.

From this edition of the newsletter we propose to highlight regions of the biosphere, we don't mean to pull it apart by any means. These regions are sometimes separated politically and sometimes because of ecology. In this edition we focus on the region of Gudalur, which is towards the western part of the biosphere and located in the state of Tamil Nadu. Gudalur is also a taluk under the Nilgiris district. Gudalur has over the years been in the news for all the unsettled land claims and disputes over forest lands. In this edition of the newsletter we gathered news from folks who have been working in the region for a long time, many who were born there too. Contributors to this edition are wide ranging from wildlife biologists to linguists to social workers.

The newsletter also has the regular columns on the activities of the NNHS and happenings at the Bee Museum. Our own 'ecolorist' as Rev. Philip K. Mulley writes 'From amongst the Blue Mountains'.

A special word of appreciation to the very interesting article that Dr. William Noble has contributed on the long distance migrations of birds. He has a request to the residents of Nilgiris to take up the task of recording sightings of these long distance visitors. Even as I write this, I see a Hoopoe hopping around in our campus here in Kotagiri and am reminded by Dr. Noble that apart from being a species that breeds in Palearctic regions and migrating southward, the species is peculiar for its scattered nestings within winter habitats. Some breeding pairs then apparently stay around and abandon their long distance migrations. So is this Hoopoe in my yard a visitor or does it have a nest tucked away somewhere?

Chief Editor



# Tolerance in Human-Wildlife Conflict

## The Global Context

- Tarsh Thekaekara

'Human-Wildlife Conflict' (HWC) is considered one of the main threats to the continued survival of many species in different parts of the world and also a significant threat to local human populations. With human population and consumption of natural resources constantly on the rise, and successful conservation measures now stabilising or increasing wildlife populations increasing conflict is seen as inevitable. But anthropologists are sceptical of the ecological sciences and conservation NGOs (non-governmental organisations) becoming the sole interpreters of this human-animal interaction. They argue there are more ways of viewing this interaction and delving into what it means to live with other animals. Indigenous cultural perspectives have often negotiated these relationships sustainably for centuries if not millennia.

For some time though, it has been recognised that individual/group perceptions of wildlife differ considerably across communities. Gender, exposure to wildlife (people living at the edge of parks

vs others), level of modernisation, type of subsistence (rural farmers vs urban dwellers) etc. have been identified as important factors that influence people's tolerance of wildlife. Central to this human-nature relationship is the Judeo-Christian humano-centric ideology, with (hu)Man apart from and dominating of Nature. This is considerably different from other cultures like Buddhism, Hinduism and even Islam, where people are more at par with Nature. With a globalisation of value systems, the humano-centric ideology is fast becoming dominant all the others

Social scientists have also predicted that as human societies develop, we will move from exploiting nature to meet our basic needs to then protecting it for aesthetic and moral reasons. This sharply contrasts with anthropologists' description of the hunter-gatherer ideology. Though they are 'less developed', they believe humans are a part of Nature, with the relationship being one of trust and respect.

Currently India is the second most populous country in the world with a high human density of 360 people per square

km; it is slated to become the most populated country in the world by 2050. Its aggressive economic annual growth of 8-10%, is resulting in dramatic increases in domestic consumption patterns. India is also home to half the world's wild tigers and Asian elephants and holds the key to the long term conservation of these 'charismatic' species. Yet these species require large home ranges and come into direct conflict with humans. Given that 200-275 million people in India live in or around protected areas (PAs) and depend on them to some extent for a livelihood, the scale of the problem is considerable.

With new legislation like the Forest Rights Act and the amendment to the Wildlife (Protection) Act, both stressing on the rights of people and the need for people and animals to co-exist, issues of how human-wildlife conflict will be resolved are of vital importance.

### Local Research – HWC in the Nilgiris

This landscape is hugely important for conservation, and Mudumalai plays a key role; it acts as a hub for landscape connectivity between the various PAs in the



Nilgiri Biosphere Reserve (NBR), which was established under the UNESCO Man and Biosphere Programme in 1986. In addition to encompassing a host of endemic flora and being part of a 'biodiversity hotspot', the NBR is home to the single largest viable populations of both elephants (*Elephas maximus*) and tigers (*Panthera tigris*) in India, and acts as a watershed for at least four of the major rivers that provide South India with most of its water. The region is turning out to be a hotspot for HWC, with almost daily reports of some interaction of wildlife and people. The NBR is also home to a range of diverse cultures and communities, and the challenge is to see how all of this can co-exist together.

In this context, there clearly appears to be a somewhat limited understanding of the 'human' in this interaction with wildlife, and this is what I aim to further probe. Do all people experience the same 'conflict' or do people determine the level of conflict through a range of factors, such as experience, lifestyles, knowledge etc.? In a recent study, I used a range of social science methods to examine levels of tolerance to wildlife among different ethnic communities living at the edge of the Mudumalai Tiger Reserve. The communities range from hunter-gatherer tribes, to settled agriculturalists, to new immigrants; all of whom, though living in the same region, have differing histories and dependencies on nature.

The demography of this area includes 5 distinct ethnic communities:

- The Malayalis, settled agriculturalists who immigrated into the area from the 1960s onwards from the neighbouring state of Kerala.
- The Chettys, also settled agriculturalists and native to the region, but do not have a history of interaction with the forests.
- Kattunayakans, a hunter-gatherer community who have the least interaction with the outside world.
- Bettakurumbas, also a hunter-gatherer group, with a long history of taming elephants; have worked for the Maharajas, then for the British and Indian Governments and are still largely employed by the Forest Department.
- The Paniyas, whose oral history starts with them being in bonded labour to the Chetty community, but have hunter-gatherer origins.

In order to ensure that all the people in the sample study had similar experiences with wildlife, the study site was defined to be along the southern edge of the Mudumalai Tiger Reserve, comprising families living within 500m of the boundary of the Reserve. The key idea was to see if all these communities had a similar perception of HWC, or were some more tolerant than others. Various questions were asked about this, along the lines of - 'Do you think it is acceptable that some crops will get damaged now and then since you live in a wildlife area?' The responses were then compared across communities.

The results, not surprisingly, showed that there were huge variations. The

Kattunayakans experienced least conflict, and had almost no problems with animals. Elephants came and went almost everyday, without either the people or the elephants being much troubled by it. The most recent immigrants to the area though, the Malayalis, had the most problems, and were constantly being harassed by wildlife. Being a relatively more powerful community, it was their voice that is the most reported, resulting in an exaggerated sense of the level of conflict.

For the Kattunayakans, the issue was quite simple: 'If you plant Bananas, elephants will eat them of course'. They perceived conflict as being largely human-induced, and to them to solution was to not attempt to compete with large animals like elephants over resources. Their lifestyles were designed to co-exist with large mammals, and had inherent measures to minimise conflict.

In the current paradigm, in our efforts to minimise HWC, our efforts are aimed at separating human and wildlife spaces – electric fences, trenches and various other deterrents. While this may be an immediate requirement, in the larger picture it cannot be seen as a solution to the problem. Protected areas occupy barely 6% of the country's landmass, and cannot on their own save much biodiversity. We as a country have no choice but to coexist with wildlife at various levels. And the key to this is to possibly examine indigenous lifestyles and learn from them.

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# Beekeeping in Gudalur

- Nishita Vasanth

On a sunny day in April this year, Karian and Selvan, two Kattunayakan men from Chembakolly village, trained ten women from their village on beekeeping. Chembakolly borders the Mudumalai Tiger Reserve. The Kattunayakans are honey gatherers of the Gudalur valley. As the men dug through the hive trying to locate the queen bee, the ladies sat around in one big circle and did what they do best...chat.

The conversation was about how keeping bees in a box was different from wild honey hunting. Although they knew a lot about bees- where to find them and when to tap honey, none of them had ever kept bees in boxes or harvested honey periodically from these boxes. The prospect of this excited them since their traditional practices of honey hunting have been on the decline. There have been repeated conflicts with the forest department whenever they have gone to collect forest honey. Most of the children now go to school and do not learn the traditional skills of the community. There are fewer people interested in going into the forest each year.

As the men kept taking out the combs from the tree, some combs were tied to the box which was going to be the new home for the hive and others were passed on to us to eat! I was given a small portion of the comb which had eggs, larvae, pollen and some honey. I carefully licked all the honey and threw away the comb. I noticed that nobody else was throwing anything away! They put the entire comb with eggs, larvae, pollen and honey in their mouth, chewed on it and spat out the waxy paste. The Kattunayakans use almost every part of the hive and thought I was being wasteful in throwing away most of my piece of comb.

The Adivasi Munnetra Sangam - AMS, is a people's organisation consisting of about 25000 adivasi members from all over the Gudalur valley. There are 4 different communities of Adivasis in the Adivasi Munnetra Sangam - Kattunayakan, Bettakurumba, Paniya, and Mullukurumba. A group from the AMS visited Keystone Foundation last year to understand beekeeping and honey marketing. The problems with wild honey hunting triggered off the idea of developing apiaries in the adivasi villages around Gudalur. Not only would this offer additional incomes to a large

number of families, but would also provide a new context through which traditional knowledge could be passed on. The AMS group came back from Keystone, completely fired up and eager to promote the idea of raising bees in their villages to ensure that their livelihood stopped being solely dependent on honey gathering from within the forests.

During our initial training sessions, we found a stark difference in the way Paniyas and Kattunayakans react to bees. In a training in



a Paniya hamlet, only Justin, the Keystone trainer went close to the bees to capture the hive whereas in a Kattunayakan training session there was very little for Justin to do. We brought this up in the AMS meetings. Everyone came to the conclusion that initially we should train the Kattunayakans in bee keeping. Once they gain expertise in bee keeping, they would be the trainers for everyone else in the Gudalur valley.

The project is to be implemented for the first year as a pilot – start slowly and let things build up organically. Beekeeping is a new activity and none of us have a clear idea about the expected honey output per box, seasons, etc. The focus is more on building people's interest by learning about bee behaviour than focusing on the number of bee boxes. In the first year, we are working with a small budget, concentrating on improving our knowledge about beekeeping and understanding the practicality of such an activity in the Gudalur valley. For this, we have narrowed down our work to 3 villages. The target is to set up 50 working boxes in the first year, monitor them

regularly and get a fair idea about the honey output every year. We also wish to train ten people so that they can set up boxes in their villages and are able to train more people in the coming years.

Now a few months into the project, we have trained four Kattunayakan across 3 villages. We went to Vazhathottam and spent four days of intensive training at the Keystone field office. We learnt how to capture hives, multiply boxes and harvest honey using extractors. After we returned, we had meetings in the trainees' villages. They have established 25 working boxes in the past few months in their villages and an apiary has been started in Gudalur with four working boxes for experimentation and learning.

We realise that for the project to be self sustaining in the long run, Adivasis interested in beekeeping need to buy the bee-boxes themselves and low cost bee-boxes is the key to this. We are currently using Keystone's Newton boxes. We are experimenting with Marthandam boxes which are smaller but also cheaper than the Newton boxes. An organisation in Dehradun called HESCO is making bee-boxes out of lantana sticks. We already have people making furniture out of lantana and making bee boxes will not be too difficult. Moreover, Lantana is an exotic weed which is found abundantly in this area. Using it will make the cost of the raw material for the bee-box negligible. Simultaneously, our local carpenters are experimenting with cheaper wood like silver oak to make Newton boxes.

Just two weeks ago, we had our first reward. One of the first boxes that were installed in Chemabakolly village was ready to harvest honey. Around 20 people gathered to see how honey was harvested from that "funny" looking machine. As the honey flowed from the extractor to the clear plastic bottle, songs about sweet honey began. There was no question of selling this honey! This was for the village and everyone would get a taste of it. The excitement and enthusiasm of our people when it comes to honey is remarkable. We hope that in the coming months more honey will flow!

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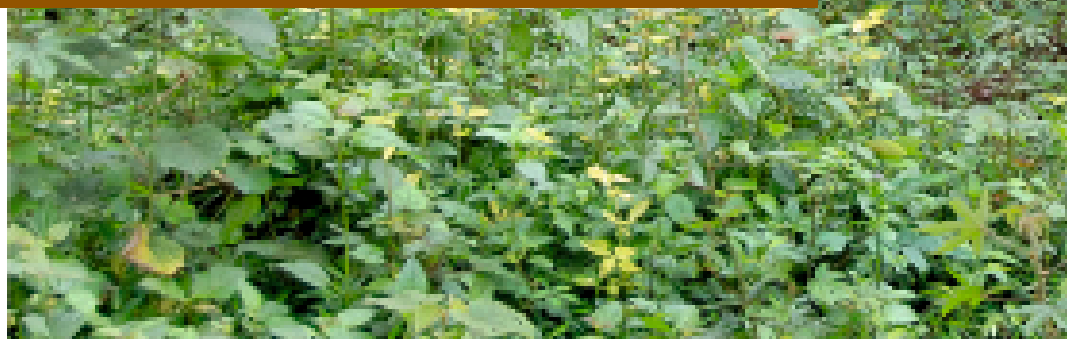
## Reviving traditional healing systems

Working with vaidyas and medicinal plants in Gudalur valley - Dr Mahesh Mathpati

In 2007, I met Stanley and Mari Thekaekara from ACCORD in Gudalur. The conversation soon turned to Ayurveda, my area of work. Discussions revolved around the fact that adivasis had a lot of knowledge about traditional practices and herbs. And led to the possibility of setting up a medicinal plant manufacturing unit in Poonthottam that could provide a livelihood opportunity as well as preserve traditional knowledge of medicinal plants.

With diminishing forests and reducing access to existing forest resources, we were aware that adivasis were rapidly losing this knowledge. Earlier, Adivasis used herbs for healing many ailments and this ensured that healing was in their own hands, but now they were dependent on alien systems of medicine often practiced by unscrupulous practitioners who dose people with unnecessary, expensive drugs. Although the Gudalur Adivasi Hospital has proved to be a haven for the community, for chronic diseases there are often better and simpler solutions in their own traditional system.

We felt that many traditional plants were becoming extinct because they were not being used. If we were to popularize knowledge of traditional medicine and useful herbs and plants, people would cherish and preserve them. It seemed like it would be a good idea to start a programme which focused on traditional medicine as a starting point. And include parallel foci on conservation, sustainable use and dissemination of knowledge.



We started in 2008 with a three pronged approach. On the one hand, we wanted to enable local health practitioners or vaidyas to provide their services to the community in a more active and regular manner. As a second step, we started talking to groups of practitioners about the need to pass on their knowledge to the younger generation. On another front, we wanted to intervene in the existing system of collection of herbal plants to ensure more economically beneficial and sustainable systems of collection including the possibility of cultivation. With this in mind, we began with Herbal garden at Devala, on a land owned by Adivasis.

We held many discussions with village groups to elicit the community's view on this. Based on their perceived needs we started a round of visiting, meeting and listing of the practicing healers. We also began documentation of details about their practices. We held a few individual and group discussions with the vaidyas. We documented Information on collection of medicinal raw drugs from the Gudalur and Pandular area and mapped the area in terms of availability and the market chain.

### Healers discussion and documentation

The rationale of the ethno- medicinal plantation in Devala is to provide certain raw materials for traditional medicine practice. And from 2011 on, we began using some these plants for treatment. We manufacture our own oil for treatment of psoriasis. We conduct many camps for adivasi students to see these plants, identify and study their uses. Even the adivasi team who visited were really excited to see many plants that they hadn't seen in a long time.

As we continued with the work, interest developed among people and school children. In 2009, we started a small herbal garden with the help of the Vidyodaya school children. We had discussions with the school team on developing a syllabus for the kids and in 2011 we created a hand book on commonly available plants and their uses.

The tea workers who work on the land have also become very aware of the important plants. They no longer randomly hack the undergrowth but carefully save the herbal plants and conserve little plants too.



All through this process, team members would come to me and ask me for medicines for patients in the village. I would give them medicines or write prescriptions for them. Slowly, by word of mouth the news spread and people began to come to me for traditional medicine. This created the need for a vaidya in the Gudalur Adivasi Hospital and by 2009, we started having a traditional medicine clinic twice a week in the hospital and twice a month in every area centre.

#### **Working with Other Organizations**

The process drew on experiences of other organizations. With Keystone foundation, we had discussions on sustainable collection practices and forests rights for NTFP collection. We met The Earth Trust

practices all over the world. They talked about what could be done to take this tradition forward and what is happening all over the world.

Today, we can safely say the awareness about traditional systems has increased and people are actively seeking these remedies for their health problems. We have a group of good healers who are able to practice with confidence and are recognized by the community. There is renewed interest in the younger generation to learn about plants, their uses and to use them for maintaining their health as well as for curative purposes.

#### **What more needs to be done?**

We need to build a good network of young as well as senior healers so that the knowledge is passed on to the next generation. Currently healers keep their knowledge secret and often it is lost if they die without passing it on.

Our Education program must be strengthened. We need to have regular interactions with interested students and encourage their interest.

We aim to create awareness in the community for the use of traditional medicine and train them in primary health care using locally available resources.

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The awareness building exercises created a demand to grow plants in the villages. So we started a nursery with the view to decrease dependency on core forest regions. With the help of Keystone and ATREE we raised saplings of indigenous species and distributed them in villages.

who invited our traditional healers to Ooty to disseminate their knowledge and practices. A team from Foundation for Revitalization of Local Health Traditions (FRLHT), Bangalore organized an exchange program in which an international group of healers visited to discuss with our healers the kind of





# On exploring the cultural heritage of the Nilgiris

Gail Coelho

The history of the Nilgiris resembles that of the Americas given that this region too was long inhabited by ethnic communities who lived in relative isolation from the Deccan Plateau and the southern coastal plains of India. The arrival of the British and people from various parts of India after the 19th century transformed the Nilgiris, setting up a “New World” with a system of governance and a way of life to which the older groups perforce had to learn to adapt, while simultaneously trying to preserve what they could of their own distinctive cultural identity.

My interest in the Nilgiri adivasis was aroused during my linguistic studies in USA, where my professors worked with diverse Native Americans, ranging from hunter-gatherers in the Amazon to the Montana Salish and Yupik' Eskimos in North America. As I listened to them talk about these peoples, I was reminded of the Kurumbas of my native town, Gudalur, Nilgiris. I was born there, and had all my life seen Kurumbas on our family estate and in Mudumalai Wildlife Sanctuary. But before becoming a linguist, had never dreamed that behind the “differentness” I took for granted, there lay a rich heritage that would keep me fascinated for years to come.

We, in the Nilgiris, are fortunate that the indigenous groups here continue to use their language actively, alongside Tamil. But this situation may not last long. In many parts of India, adivasis are already discontinuing use of their traditional mother tongues because they are made to feel that their mother tongues are unimportant, corrupt versions of some more celebrated dominant language, and that it is better for the children to learn the State language instead. What we, in India, have not fully recognised is that these speech varieties are neither corrupt nor unimportant, but instead a vital part of our cultural and intellectual heritage – as vital and as representative of our national history, identity, and creativity as monuments like the Taj Mahal and archeological sites like those

of the Indus Valley Civilization, on whose preservation we spend millions.

The Nilgiris consists of two cultural zones: the Upper Nilgiri region and the Nilgiri-Wynaad region. Quite a lot of anthropological and linguistic work has been done on the Upper Nilgiri region occupied by the Toda, Badaga, Kota, Alu and Palu Kurumba, and some Irula/Kasava groups. Much less information is available on the Nilgiri-Wynaad region, occupied by various groups of Kurumbas and Irulas/Kasavas, as well as Paniyas and Chettiars; therefore, I began my work with the language of the Betta Kurumbas.

As a linguist, I was interested in identifying the grammar of this language, and the position it occupies within the Dravidian language family. This family consists of over 27 languages identified so far, grouped into four branches: North (e.g. Brahui in Pakistan), Central (e.g. Gadaba in Orissa and Andhra Pradesh), South-Central (e.g. Telugu), and South Dravidian (e.g. Tamil, Malayalam, Kannada, and the indigenous Nilgiri languages). To piece together the history of the family and understand how these four branches arose, linguists compare the structures of all languages in the family for which we have records and on the basis of shared or divergent features within these, they attempt to identify the structures that must have been present in older stages of the family, and in its ultimate mother language, which we call Proto-Dravidian. For example, we deduce that Proto-Dravidian had a particularly rare trio of consonants (dental, alveolar, and retroflex obstruents) because these consonants are present in Old Tamil, Malayalam, and interestingly enough, the Nilgiri languages, although they have been lost in all other Dravidian languages, including Modern Tamil. To me, it has been exciting also to find that structures considered lost in the modern South Dravidian languages turn out to be still present in Betta Kurumba!

I was interested also in exploring the Betta Kurumbas' relations with the land they have long inhabited and with the other people of the region. Interestingly, while other communities use the term Kurumba for many different groups, the Betta Kurumbas reserve this term only for themselves (kurbën for males, kurbiti for females), using other names for “Kurumbas” in the Nilgiri-Wynaad zone; e.g. mēgën/mēgiti 'Jenu Kurumba or Kattunayaka', pidal n/pidal ti 'Mullu Kurumba'. Other indigenous groups are called tool n /tool ti 'Paniya', ěrën/ěrti 'Irula/Kasava', bad n /bad si 'Chettiar', tadn/taditi 'Toda', koomaggi/kěəsi 'Kota', melbad n /melbad si 'Badaga', while recent settlers in the Nilgiris are all called 'kanijani'. Their close cultural ties to the land include an intricate clan system consisting of six superclans or 'phratries', divided into numerous clans, each with an associated clan territory. They believe that the ancestral spirits reside in these clan territories and that, when a person dies, the spirit must be escorted to his/her clan territory by the ancestral spirits and deities of the land. The spirits are summoned through a religious ritual called the *binji*, which can be conducted only within the homeland. Thus, it is essential to them that their people remain within the homeland, so as to maintain their traditional ties with both their living and their dead.

These details depict only a smidgen of the cultural landscape that emerged as I worked with the Betta Kurumbas. There is much to honour in the indigenous languages and cultures of the Nilgiris. Our support for them is as important to our cultural heritage as preservation of the aforementioned national monuments and archeological sites. All culture is emergent and cultural practices always change, but the change could be one of mutually respectful coexistence between the recent settlers and the indigenous, rather one in which the latter get steamrolled by the former.

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# Gudalur – a backdrop

Philip K Mulley

During British times, Gudalur was mostly known as the 'hub' of Wynaad traffic and Wynaad had included parts of the Malabar district, the Nilgiris, and Coorg. The spokes of human enterprises that rimmed the hub even from as early as about a couple of millennia ago, have largely gone unnoticed.

Palyaanai Selkezhukuttuvan, a Chera ruler attested to in Tamil Sangam texts is said to have actually introduced a kind of land settlement measure pertaining to the aborigines (muthiyar) in the region. Apart from the place names, Cherambadi and Cherangode, the ethno-linguistic evidences present in the region seem to substantiate the history of these enterprises. Umbarkaadu (present day Numbalakode) and Muthur (present day Srimadurai) of those times were perhaps places of importance. The Vaalunnavars of Numbalakode had literally owned large tracts of the region before the Nilambur janmi usurped their authority. The Vaalunnavars even as late as about three centuries ago had the Badagas and the Mountdadan Chettis as their tenant-cultivators. Todas, Badagas and Kotas had always traced some early contacts to Muthur in their oral history. Toda habitations existed even as far as Devala and Devarshola Estate. As a matter of fact, the path to the other

world, of at least one Toda patrician converged in the neighbourhood of the now famous Edakkal caves near Sultan's Bathery. Badagas specifically called the cave site 'Todama-aale' (in refined terms The Toda Retreat, or in crude terms, The Jungle of the Toda). Bathery itself was once upon a time a leading Jaina centre (remains can still be seen) and Tippu Sultan's battery came to be housed in the then Jaina site, only in later times.

Now leaving aside the Kadambas, who preceded the Gangas, an interesting copper plate grant of the Gangas furnishes the following information on resource management in the region. The 8th century grant issued by the Ganga ruler Sripurusha mentions Gudalur and environs as containing lands fit for cultivation of rice and grains, garden lands and forest lands fit for the cultivation of drug or pepper and as including fourteen villages. Whatever happened to this considerably important region is not clearly known. However, the local lore has a vague recollection of an epidemic razing the habitations to destruction.

After a few centuries of isolation, we get glimpses into some aspects (albeit skeletal) of new settlements in the region from about the 13th century. Munnaad (later to become part of Gudalur) appears in inscriptions

pertaining to that period. Vassals of Kurumbranadu and Kottayam from near Kannur also began to exercise jurisdiction over large areas of Gudalur and neighbourhoods in succeeding times. To cut a long story short, eventually the British took over Malabar, but Keralavarma or the Pazhasi raja of Kottayam (whose fortifications extended as far as Nelakottah) mounted a valiant resistance to British suzerainty. The details of the saga of those days need not retain us here. Veeravarma, the raja of Kurumbranadu, as in many a colonial Indian episode, sided with the British. Pazhasi raja fell as a heroic victim in the year 1805.

British manipulations on expected lines, subsequent to 1805 made the Nilambur janmi, the chief broker of power in the region. The highlights of the dominance of this sector of authority are too well known. The vicissitudes of the socio-economic history of the region eventually caused the annexation of Gudalur to Nilgiris in 1873 and that of Oucherlony Valley in 1877. As obvious from the above account, the inter and intra tribal chronicle of region (not touched upon here) is an entirely different cup of tea.

*Philip K Mulley can be contacted at*

## International Conference on Cycad Biology, Shenzhen, China

- C S Saneesh

The 9th International Conference on Cycad Biology was held in Shenzhen, China in December, 2011. The conference brought together over 110 delegates from 15 different countries and regions. A total of 54 talks and 22 posters were presented.

The conference was organized by Fairy lake Botanical Garden, the Cycad Society of China, the IUCN/SSC Cycad Specialist Group, the Forestry Department of Guangxi province, the New York Botanical Garden and Montgomery Botanical Center and co-organized by Shenzhen Urban Management Bureau, Department of National Reserves & Wildlife Conservation, the National Forestry Bureau, and the China Wild Plant Conservation Association.

### Oral presentations & posters

Talks and posters were presented in eight main study areas: Genetics and Genomics, Conservation, Taxonomy and Phylogeny, Ecology, Horticulture, Toxicology,

Economic Botany and Information Management. I presented a paper on 'Conservation Centers: An indigenous effort to conserve *Cycas circinalis* in the Nilgiri Biosphere Reserve, Western Ghats, India.

### Cycad Specialist Group workshop

Central to the conference was the IUCN Cycad Specialist Group, which met to update information on cycads on the Red List for 2011 with new data gained from recent research.

A city tour organized as part of the conference covered the following:

- Neilingding island, - Futian Mangrove Nature Reserve. Futian mangrove is the only reserve located in a metropolis in China. It is also the smallest National Nature Reserve housing of 619 species of vascular plants. Wild animals are widely distributed and there are 194 bird species in this mangrove, including 23 key protection species of national importance. Every year more than 100,000 migratory birds of various species

arrive in Futian for seasonal rest and feeding.

- Meilin Reservoir to explore Cycas fairylakea. Cycas fairylakea is a national grade-1 key protection wild plant, known as a living fossil. The wild population is found only in one place in the entire world and there are fewer than 2000 total individuals living.

- China's first cultural theme park to watch the performances of Dragon and Phoenix dances that narrate the tale of China's five thousand year civilization. We also saw Oriental Apparel, a grand folk dance show in traditional Chinese costume bringing together north, south, west and east regions of China.

- Shenzhen paleontological museum in the Fairy lake Botanical Garden : This museum has plant and animal fossil collections of almost 10,000 species. In this remarkable collection are more than 500 trunks of petrified wood dating from 50 million to 170 million years.

The conference saw cycad biologists from around the world presenting new scientific discoveries and discussing critical future directions. It was a remarkable experience to see the progress in the field of Cycad biology.

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# Migrating through The Nilgiris

Many of us are oblivious of the amazing distances many birds annually cover during their summer to winter migrations. The migrations of cuckoos between Africa and India have for long been known. Increasing evidence indicates that each annual westerly monsoon plays a vital role in these migrations.

an average speed of 97 kilometers per hour. Before leaving Sweden, they double their body weight and burn the fat on their flight. Needless to say, upon reaching their destination they are exhausted and a lot thinner.

We must praise the efforts by the National Centre For Biological Sciences, Bangalore, to unravel the mysteries surrounding the myriads of birds that migrate to and from India, including southern India (and the Nilgiris?) each year.

Because of their location, the Nilgiris have the potential to be one of the most vital world centers. Through the banding of birds, scientists can slowly

Russian Far East, Mongolia, and northeastern China to wintering in Kenya/ eastern Africa and South Africa, often migrating with flocks of Lesser Kestrels or Eurasian Rollers. While there is great focus now on the Amur falcon, there seems a great possibility that other raptor species are involved in long-distance flights over India.

There are a noteworthy number of ocean/sea-loving birds which every year fly long distances back and forth between their nesting areas far to the north of India and areas far to the south, including South Africa, Madagascar, and islands in the western Indian Ocean (the Seychelles, Mauritius, and Reunion, for example). Bird lovers in the Nilgiris can provide vital data for birds flying over the Nilgiris on their long-distance flights. As a topic with local focus, what ocean/sea-loving birds might one be able to find as visitors to Nilgiri lakes?



learn about the migrations of birds found in the Nilgiris. Through the use of mist nets, birds migrating from afar can be identified - with bird banders far away being able to be informed about the arrival of their banded birds in the Nilgiris. Bird lovers in the Nilgiris are urged to record their observations and to form a checklist of Nilgiri birds, added to and revised each year. At least one Nilgiri-wide bird count per year is a most useful way of finding out how the bird population is doing. A bird count is carried out in one day by birds lovers who go out on a chosen day and jointly record each species seen and the numbers of each species seen.

In another example - the Amur Falcon (*Falco amurensis*), a remarkable annual migrant from the Amur River region of the

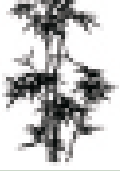
This short article is the introduction to an extensive list of migratory birds and their paths compiled by Dr. Noble. The full article can be accessed on the [www.nnhs.in](http://www.nnhs.in) website.

*Dr. Noble can be contacted at [swanoble@gmail.com](mailto:swanoble@gmail.com)*

Photo credit: Flickr: EOL Images, Photographer: Bernard, [http://eol.org/data\\_objects/17738505](http://eol.org/data_objects/17738505)

While there is thus far a lack of thorough flight records for birds migrating to and from India, it would not be too surprising to discover someday that some Great Snipes deviate to the left in their southern migratory flights and end up in southern India and areas farther south. Great snipes are amazing for setting the fastest non-stop long distance flight records in the world. They have been recorded as flying from Sweden to sub-Saharan Africa in two days without resting, some 4,200 kilometers, at





# பீதரு சத்த

வெள்ளெரிக்கோம்பே ஊர் சிறுவர்களால் உருவாக்கப்பட்ட இயற்கை மாத இதழ்



## சுற்றுச்சூழல் முகாம்

இந்த மாதம் பில்லூர் கீஸ்டோன் அலுவலகத்தில் சுற்றுச்சூழல் முகாம் நடைபெற்றது அதில் சுற்றுச்சூழல் பற்றியும் ஈந்தபனை அழிந்துவரும் தாவரம் என்றும் அதனை நம் பாதுகாக்க வேண்டும் என்று மாதேஸ் மற்றும் ரூத்பின்டோ பாடம் கற்பித்தனர், அத்துடன் சந்திரன் அவர்கள் நமது கலாச்சரம் பற்றியும் பாடம் கற்பித்தார், ஒரு மரத்தின் கீழ் அமர்ந்து எத்தனை வகையான உயிரினங்கள் மரத்தினை நம்பி வாழ்கின்றன என்றும் மரத்தில் பறவை, மற்றும் பூச்சி இனங்கள் ஏதேனும் உள்ளதா என்று உற்று நோக்கினோம்.



## ஆணிக்கல் மழை.

இந்த மாதம் நாங்கள் பள்ளி சென்று திரும்பியபோது கட்டி கட்டியாக மழை பெய்தது பின்பு வீடு சென்று பாட்டியிடம் தெரிவித்தோம், அவர் எங்களுக்கு சில தகவல்கள் தெரிவித்தார், ஆணிக்கல் மருந்தாக பயன்படுகிறது என்றும் உடம்பில் கட்டிகள் ஏற்பட்டால் இவற்றை எடுத்து அந்த இடத்தில் கட்டினால் உடம்பில் உள்ள கட்டி குணமாகும் என்றும் தெரிவித்தார்



## கண்ணால் பார்த்தது காதால் கேட்டது

மூங்கில் குருத்து சாப்பிட்டால் உடம்பு வலி குணமாகும், மூங்கில் மரத்தினால் கூடைகள் வீட்டு உபயோக பொருட்கள் மற்றும் சிறுவர்கள் விளையாட்டு பொருட்கள், விளையாட்டு துப்பாக்கிகள் செய்யவும் பயன்படுகிறது என்பதைப்பற்றி தெரிந்துக்கொண்டோம்.



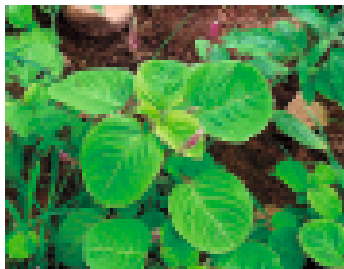
## காட்டுத்

இந்த மாதம் சூரிய வெப்பம் அதிகமானதால் வெள்ளரிக்கோம்பை அருகில் உள்ள தெளிக்கி பாரை பகுதியில் காட்டுத்தீ ஏற்பட்டது, இதன் மூலம் பூச்சி இனங்களும் பறவை இனங்களும் மற்றும் அரியவகை தாவரங்களும் அழிந்துவிடும்.



## இம்மாதம் காட்டில் கிடைக்கும் பொருட்கள்

- 1, தெய்யா டாகு
  - 2, முன்னை டாகு
  - 3, சீங்கை டாகு
  - 4, காக்கை டாகு
  - 5, சீவக்காய்
  - 6, நெல்லிக்காய், கடுக்காய், பூச்சக்காய், அனைத்தும் பூ நிலையில் உள்ளது
- முள்கீரை முன்னை கீரை சர்க்கரைவியாதி தழை



## கற்றதும் அறிந்ததும்:

பள்ளி விடுமுறை நாட்களில் சிவன்ணா அவர்கள் எங்களை காட்டிற்கு அழைத்துச் சென்றார், அவர் எங்களுக்கு காடு சம்பந்தமான நிறைய தகவல்களையும் மேலும் காட்டின் நன்மைகளையும், காடுகளை பாதுகாப்பதனால் அதன் மூலம் மழை பெறுகின்றோம் மற்றும் மனிதர்கள் உயிர் வாழவும் காடுகள் முக்கியமானது என்பதை எங்களுக்கு விளக்கினார்.

## தெரிந்து கொள்ளுங்கள் இவரை

இவர் பெயர் செள்ளி(ல்லி) இவர் பில்லூர் பகுதிக்கு உட்பட்ட கீழ்ப்பில்லூர் கிராமத்தில் வசித்து வருகிறார், கிராமத்தில் உள்ள சிறியவர்களுக்கும் சிறு மூலிகை மருந்து செய்து கொடுத்து வருகிறார். அத்துடன் அந்த ஊரில் உள்ள சிறு குழந்தைகளுக்கு மருந்து செடிகள் பற்றி சொல்லி தருகிறார்.



K. Sudbakar is the area manager at Pillur. (k.sudbakar79@gmail.com)



# ನಿಸರ್ಗ ಸುದ್ದಿ

ಪುಣಜನೂರು ಮಕ್ಕಳು ಸಿದ್ಧಪಡಿಸಿದ ಮಾಸಿಕ ಪರಿಸರ ಸುದ್ದಿ



## ಉಪಾಯಗಳು

ಕಿರು ಬೇವಿನ ಸೊಪ್ಪು ಮತ್ತು ಅರಿಸಿನವನ್ನು ಬೆರಸಿ ವೈ ತುಂಬ ಹಚ್ಚುವುದರಿಂದ ಕಪ್ಪೆಕಜ್ಜಿಯು ವಾಸಿಯಾಗುತ್ತದೆ, ನಾಗಮ್ಮ-ಹೊಸಪೋಡು ಇಟ್ಟಿ ಪಟ್ಟಿಯನ್ನು ಅರೆದು ಪುಡಿಮಾಡಿಕುಡಿಸುವುದರಿಂದ ಹೊಟ್ಟೆ ನೋವು ವಾಸಿಯಾಗುತ್ತದೆ. ಬಸವೇಗೌಡ, ಹೊಸಪೋಡು

## ಕುತೂಹಲಗಳು

ಬೂದಿಪಡಗ ಭಾಗದ ದೊಡ್ಡ ಹಳ್ಳಿ ಭಾಗದಲ್ಲಿ ದಿನಾ ಸಾಯಂಕಾಲ ಮತ್ತು ರಾತ್ರಿ ಸಮಯದಲ್ಲಿ ಆನೆ, ಜಿಂಕೆ, ಕಡವೆ, ನೀರುಕುಡಿಯಲು ಬರುವುದು. ನಂತರ ಜಮೀನಿಗೆ ನುಗ್ಗಿದಾಗ ಓಡಿಸುವುದು. ಕಾಡಂಚಿನ ಜಮೀನಿನಲ್ಲಿ ಶಬ್ದ ಊರಿಗೆ ಕೇಳಿಸುವುದು ಈ ಭಾಗದಲ್ಲಿ ಸಾಮಾನ್ಯವಾಗಿ ಕಂಡುಬರುತ್ತದೆ.

## ಇವರ ನೆಪ್ಪು ಇದೆಯೇ?

ಹೆಸರು : ಭದ್ರೇಗೌಡ ,ವಯಸ್ಸು- 50, ಗ್ರಾಮ- ಬಂಡ್ರಳ್ಳಿ ಕಾಲೋನಿ ಭದ್ರೇಗೌಡರು ಸುಮಾರು 22 ವರ್ಷದಿಂದ ಬಂಡ್ರಳ್ಳಿ ಕಾಲೋನಿಯಲ್ಲಿ ವಾಸವಾಡಿಕೊಂಡು ಬರುತ್ತಿದ್ದಾರೆ. ಇವರ ಮುಖ್ಯವಾದ ಕಸುಬು ಕಿರು ಅರಣ್ಯ ಉತ್ಪನ್ನ ಸಂಗ್ರಹಣೆ ಮಾಡುವುದು. ಮುಖ್ಯವಾಗಿ ಸಂಗ್ರಹಣೆ ಮಾಡುವ ಕಿರು ಅರಣ್ಯ ಉತ್ಪನ್ನಗಳೆಂದರೆ ಮರ ಪಾಸೆ, ಜೇನುತುಪ್ಪ, ಇವರ ಜೇನು ಸಂಗ್ರಹಣೆಯಲ್ಲಿ ಹೆಚ್ಚು ಆಸಕ್ತಿಯನ್ನು ಹೊಂದಿದ್ದಾರೆ. ಅದಲ್ಲದೆ ಇವರ ಮನೆಯ ಸುತ್ತಮುತ್ತ ಇರುವ ಮರ



(ಗೊಟ್ಟಿಸಿಬೆ ಮರ ಮತ್ತು ಹೋವಿನ) ಗಿಡಗಳಿಗೆ 5 ವರ್ಷಗಳ ಹಿಂದೆ 1 ಕಡ್ಡಿ ಜೇನು ಬಂದು ಕಟ್ಟಿತ್ತು ಅದನ್ನು ಸಂರಂಭದ ವಿಧಾನದಿಂದ ಜೇನನ್ನು ತೆಗೆದು ಅದರ ರಾಡೆಯನ್ನು ಹಾಗೆಯೇ ಬಿಡಲಾಗುತ್ತಿತ್ತು ಅದರ ಪರಿಣಾಮವಾಗಿ ಈ ವರ್ಷ 6 ಜೇನು ಗೂಡುಗಳು ಬಂದು ಕಟ್ಟಿವೆ. ಅದಲ್ಲದೆ ಇತ್ತೀಚೆಗೆ ಕಾಡಿನೊಳಗೆ/ಮನೆಯ ಸುತ್ತ ಮುತ್ತ ಮರ ಗಿಡಗಳಲ್ಲಿ ಜೇನು ತೆಗೆದ ಗೂಡಿನ ರಾಡೆ ಮತ್ತು ಗೂಡನ್ನು ಜೇನು ನೋಡಲೊಂದಿಗಿಂತಂದು ಸಾಕುವ ಹವ್ಯಾಸವನ್ನು ಬೆಳೆಸಿಕೊಂಡಿದ್ದಾರೆ. ಕಳೆದ ವಾರದಲ್ಲಿ 30/5/2012 ರಂದು 1 ಕೆಜಿ ಜೇನನ್ನು ತೆಗೆದಿರುತ್ತಾರೆ.

## ಮಾಡಿದ್ದು

ಈ ತಿಂಗಳು ಪುಣಜನೂರು ಕಿರಿಯ ಪ್ರಾಥಮಿಕ ಶಾಲೆಯಲ್ಲಿ ಪೌಷ್ಟಿಕ ಆಹಾರ, ಸ್ಥಳಾಂತರ ಬೇಸಾಯ ಹಾಗೂ ರಾಸಾಯನಿಕ ಬೇಸಾಯದಿಂದ ಆಗುವ



ಅನಾಹುತಗಳ ಬಗ್ಗೆ ವಿವರಣೆ ನೀಡಲಾಯಿತು, 20/4/2012 ರಂದು ಶ್ರೀನಿವಾಸಪುರ ಕಾಲೋನಿಯ 20 ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ಸುವರ್ಣಾವತಿ ಜಲಾಶಯಕ್ಕೆ ಕರೆದು ಕೊಂಡು ಹೋಗಿ ನೀರಿನಲ್ಲಿ ವಾಸಿಸುವ ಜೀವಿಗಳ ಬಗ್ಗೆ ಶ್ರೀ ಸುಧಾಕರ್ ಅವರು ಪಿಲ್ಲೂರು ವಿಭಾಗ ವ್ಯವಸ್ಥಾಪಕರು ವಿಧ್ಯಾರ್ಥಿಗಳಿಗೆ ವಿವರಣೆ ನೀಡಿದರು 20/5/2012 ರಂದು ಪುಣಜನೂರು ವಿಭಾಗದಲ್ಲಿ ಕಡ್ಡಿ ಜೇನು ಸಂಗ್ರಹಗಾರರ ಸಮೀಕ್ಷೆಯನ್ನು ನಡೆಸಲಾಯಿತು ಇದರಲ್ಲಿ ಮುಖ್ಯವಾಗಿ 20 ಸಂಗ್ರಹಗಾರರನ್ನು ಸಮೀಕ್ಷೆ ಮಾಡಲಾಯಿತು.

## ಮುಂದಿನ ತಿಂಗಳು

12,22/06/2012 ಪುಣಜನೂರು ಶಾಲೆಯಲ್ಲಿ ಪರಿಸರ ಸಂರಕ್ಷಣೆಯ ವಿಷಯವಾಗಿ ತರಗತಿಯನ್ನು ನಡೆಸುವುದು.

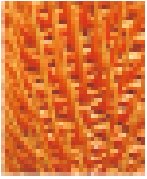
16,28/2012 ನೀರುದುರ್ಗಿ ಸಾವಯವ ವ್ಯವಸಾಯ ಸಂಘದ ಸಭೆ ಸೇರುವುದು.

## ಮುಖ್ಯ ಸಮಾಚಾರಗಳು

ಕೀಸ್ಟೋನ್ ಸಂಸ್ಥೆಯು ಸಂರಕ್ಷಣೆ ಬಹುವಾನವಾಗಿ ಕೊಟ್ಟ 50000 ಸಾವಿರ ರೂಪಾಯಿಯನ್ನು ಶ್ರೀನಿವಾಸಪುರ ಕಾಲೋನಿಯ ಹಳೆಯ ನೀರಿನ ಟ್ಯಾಂಕನ್ನು ಶುದ್ಧಗೊಳಿಸಿ, 5 ಬೀದಿಗಳಿಗೆ ಪೈಪ್ ಲೈನ್ ಗಳನ್ನು ಮಾಡಿ 5 ನೆಲ್ಲಿಗಳನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ. ಗ್ರಾಮದ ಜನರು ಈ ಟ್ಯಾಂಕಿನ ನೀರನ್ನು ಉಪಯೋಗಿಸುತ್ತಿದ್ದಾರೆ. ಹಾಗೂ ಉಳಿದ ಹಣವನ್ನು ಗ್ರಾಮದಲ್ಲಿ ಓದುವ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಾಯಕ್ಕಾಗಿ ಮೀಸಲು ಇಡಲಾಗಿದೆ



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# കാട്ടുപൂവ്

നിലമ്പൂരിലെ കുട്ടികൾ തയ്യാറാക്കിയ പരിസ്ഥിതി മാസിക

## നാട്ടുവിശേഷം

മാർച്ചു മാസത്തിൽ ദേശീയ ഗ്രാമീണ തൊഴിലുറപ്പ് പദ്ധതിയിൽ ഉൾപ്പെടുത്തി അപ്പകാപ്പ് കോളനിയിൽ നിർമ്മാണ പദ്ധതി ആരംഭിച്ചു. മെയ് മാസത്തിൽ പദ്ധതിയുമായി ബന്ധപ്പെട്ട് നാരങ്ങാപ്പൊയിൽ കോളനിയിൽ വച്ച് മീറ്റിംഗ് നടന്നു. അപ്പകാപ്പിൽ നാട്ടുകാരുടെ നേതൃത്വത്തിൽ നിർമ്മാണത്തിൽ നിന്ന് കല്ലും പാറകളും നീക്കം ചെയ്യുന്നത് തടഞ്ഞു.



## വിരുന്നുകാർ

- ആന-32
- ആന റാഞ്ചി- 15
- ഇരട്ടത്തലച്ചി-എല്ലാദിവസവും
- മണ്ണാത്തിക്കിളി- 10
- തേൻകുരുവി- 10
- വാലുകുലുക്കി- 12
- ഉപ്പൻ- 42
- മരംകൊത്തി- 10
- നീർക്കാക്ക- 50

## തന്ത്രങ്ങൾ-

കാട്ടു പീച്ചിങ്ങ ഇടിച്ചു പിഴിഞ്ഞ് ചാർ എടുത്ത് നാലുതുളളി വീതം ഓരോ മുക്കിലും ഒഴിച്ച് നസ്യം ചെയ്യുന്നതിലൂടെ മഞ്ഞപ്പിത്തത്തിൽ നിന്ന് മോചനം നേടാം. കീഴാർ നെല്ലി ഇടിച്ചു പിഴിഞ്ഞ നീർ തേങ്ങാപ്പാലിൽ ചേർത്തു കഴിച്ചാലും മഞ്ഞപ്പിത്തം ശമിക്കും.

## പേരിനു പിന്നിൽ

ചട്ടിപ്പാറ: വഴിക്കടവിനു സമീപമുള്ള ഒരു സ്ഥലമാണ് ചട്ടിപ്പാറ. ഇവിടെ ചട്ടിയുടെ ആകൃതിയിലുള്ള ഒരു പാറയുള്ളതു കൊണ്ടാണ് ഇവിടം ചട്ടിപ്പാറ എന്നറിയപ്പെടുന്നത്.

*Suresh is the Coordinator for activities at the Village Conservation Centre, Keystone Foundation, Appankappu, Nilambur*

## കാട്ടുവിശേഷം

പതിവു പോലെ കൊച്ചു കാളേട്ടന്റെ നേതൃത്വത്തിൽ തേൻ ശേഖരണം ആരംഭിച്ചു. മാർച്ച്, എപ്രിൽ മാസങ്ങളിൽ വാണിയമ്പുഴ, കുമ്പളപ്പാറ കോളനികളിൽ കാട്ടു മാങ്ങ ശേഖരണം നടന്നു. മെയ് അവസാനത്തോടെ അപ്പകാപ്പ്, പുഞ്ചക്കൊല്ലി, പാട്ടക്കരിമ്പ്, വാണിയമ്പുഴ, എന്നീ കോളനികളിൽ വള്ളിമാങ്ങയും, അപ്പകാപ്പ് കോളനിയിൽ കാട്ടുമഞ്ഞൾ, കാട്ടുകിഴങ്ങ് എന്നിവയുടെ ശേഖരണവും ആരംഭിച്ചു.

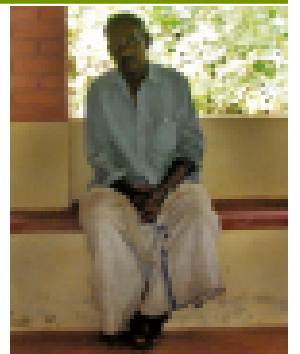
## അറിഞ്ഞോ?

അപ്പകാപ്പ് അങ്കണവാടിയിൽ കുടുംബശ്രീ, സി.ഡി.എസ്, അമ്മിണി ടീച്ചർ എന്നിവരുടെ നേതൃത്വത്തിൽ മുള ഉപയോഗിച്ചുള്ള കരകൗശല വസ്തുക്കൾ നിർമ്മിച്ചു വരുന്നു. പോത്തുകൾ ഗവൺമെന്റ് ആശുപത്രിയിലെ ജീവനക്കാർ അപ്പകാപ്പ് കോളനിയിലെ കുട്ടികൾക്കും ഗർഭിണികൾക്കും മരുന്നുകൾ വിതരണം ചെയ്തു. അപ്പകാപ്പ് കോളനിയിലെ 14 കുട്ടികളെ ഐ.ജി.എം.എം.ആർ സ്കൂളിൽ ചേർത്തു.



## ഇവർ ഇങ്ങിനെ

അപ്പകാപ്പ് കോളനിയിലെ വലിയ രാമൻ. ഇദ്ദേഹം കോളനിയിൽ വനവിഭവങ്ങൾ ശേഖരിച്ചു ജീവിക്കുന്നു. മുള കൊണ്ടു മീൻ കുടും മറ്റ് കരകൗശല ഉത്പന്നങ്ങളും നിർമ്മിക്കുന്നതിൽ വിദഗ്ദനാണ് രാമേട്ടൻ. കുറച്ചു കാലം മുൻപുവരെ പട്ടികവർഗ്ഗ സഹകരണ സംഘത്തിന്റെ അപ്പകാപ്പിലെ നടത്തിപ്പുകാരനായിരുന്നു ഇദ്ദേഹം.



## പ്രകൃതിയിൽ

20ൽ പരം പക്ഷികളെ കാണാൻ സാധിച്ചു. ഔഷധ തോട്ട നിർമ്മാണവും അവയെക്കുറിച്ചുള്ള വിവരശേഖരണവും ആരംഭിച്ചു. പുന്തോട്ട നിർമ്മാണം തുടങ്ങി. ഈതു വിളവെടുക്കുന്നവരുടെ സംഘം 4 തവണ പ്രകൃതിയിൽ വച്ച് യോഗം ചേർന്നു. ഇതിൽ ഒന്നിൽ വിശാഖ പട്ടണത്തുള്ള വികാസ ഫൗണ്ടേഷനിൽ നിന്ന് വന്ന 7 പേർ പങ്കെടുക്കുകയും സംഘാംഗങ്ങളുമായി സംസാരിക്കുകയും ചെയ്തു.



# Diary of Nilgiri Natural History Society

## HWC talk, Kotagiri

On the 9th of December, a public talk and discussion on issues and incidents of Human-wildlife conflict was organised at Mudhaiya Hall, Ramesh Vihar Hotel, Kotagiri. 30 persons from The Kotagiri Wildlife Association, Kotagiri Drivers Association, Kotagiri Market Association, a group of farmers from Nedugula and other interested individuals attended and participated in the discussion. Presentations made by T Samraj and Robert Leo of Keystone Foundation kick started the event and provided structure to the forum's discussion. Both direct and indirect causes of human-wildlife conflict were concentrated on, as were perceptions of conflict. Representatives from the Forest Department were present as well and addressed various questions and complaints of those gathered. This discussion is part of a series of similar discussions organised by NNHS on human-wildlife conflict, with various stakeholders. In October, such a discussion was held at Coonoor Club and attended by estate owners and managers and other interested individuals. Another similar forum shall be organised in Ooty in the coming months.

## Solid waste management talk, Coonoor

As part of a series of talks on Solid Waste Management by Arun Bellie and the Blue Mountain Warriors, an open discussion was held at St Sebastian Church Hall, Coonoor in December. Individuals from Coonoor and surrounding villages participated in the event which involved telling of personal experiences by the Blue Mountain Warriors, children from schools within the Nilgiris.

## Wetland Biodiversity survey

As part of a Keystone project on wetlands and their conservation, NNHS members participated in a series of biodiversity

surveys at Taranad mund and Bison swamp on the 27th and 28th of December.

## Bikkapathy Mund Trail

The trail was set on a sunny day and there were enthusiastic participants from all corners, including a large group from Europe. The trail began at the Toda mund. The participants got an insight of their symbiosis with nature, had a look into their buffalo pen and their traditional embroidery shawls, apart from seeing their traditional houses and interacting with them. Further on the trail they had a bird's view of the Sigur plateau through the running grasslands and sholas from above. They were interested to hear about the community bee reserve and peeped into couple of the bee cavities in the trees nearby. They took stock of the birdlife. A black eagle and some fauna like the gaur, malabar giant squirrel etc, were sighted. Some participants were interested in the vegetation looking at the *Strobilanthus* spp and few medicinal plants like gaultheria.

## World Wetland day celebration

World Wetlands Day was celebrated in Happy Valley Kotagiri with a meeting and a rally of school children to raise awareness regarding the need to conserve wetlands. The President of the Town Panchayat, Shri Vapu along with local ward members Mr Kannan and Mr Sarvanan attended the meeting. Shri G Shashidaran, AEE TWAD Board and Mr Manikandan, Guard, Kotagiri Forest Range also graced the occasion. Children from the CSI Higher Secondary School, Kotagiri and Hillfort Public School, Nedugula participated.

## Cairn Hill trail

Situated 2200m above sea level, the Cairn Hill entrance road is flanked by dense cypress trees. A hotspot for birds such as the Nilgiri

Laughingthrush, Nilgiri Blue Robin, White-bellied Shortwing, Black-and-Rufous, Rusty-tailed and Nilgiri Flycatchers, Cairn Hill is situated about 3km on the road to Avalanche. Guided by Mr Bhoopathy from Kotagiri, participants met at the Bee Museum where they were briefed about the history of Cairn hill and its teeming bird life. This was followed by a 3 hour walk through the deciduous forest.

## Clean-up drive

In celebration of Earth Day 2012, the NNHS organised and conducted a clean-up drive from Bettaty to Bandishola along the main road. The event was facilitated by some village elders from Yedappalli. A large group of children from Riverside Public School along with Arun Bellie of BERU Foundation participated in the drive, garnering the attention of local people who soon joined in. MLA Coonoor Mr Ramachandran K, India's first man in space Rakesh Sharma, Coonoor Forest Range Officer and others from the Forest Department as well as a few individuals from neighbouring localities enthusiastically joined in the clean-up drive. At the Yedappalli panchayat mandapam, villagers were informed of the ill effects of improper garbage disposal and the benefits of source segregation. In all, 51 large garbage bags were filled with garbage from villages considered to be among the cleanest under the Coonoor jurisdiction.

The event was organized to generate awareness regarding garbage disposal and the need to pro-actively be involved in the issue locally.

## Gombu Falls trek

A trek through the forests surrounding Gombu Falls proved challenging, but refreshing with the onset of summer. The Falls, around 21 metres in height, is at an altitude of 1700m above sea level has one of its origins in Longwood Shola. After a briefing by Senthil Prasad, an NNHS EC member, the group of over 20 participants of varying ages clambered up and tackled the rough terrain. The view of the Moyar valley towards the end of the trek left many elated.

## Children's camp at Pillur

A two day summer camp was conducted at the Keystone Village Conservation Centre, Pillur by the NNHS. 20 children from neighbouring villages attended the camp which included a variety of educational and fun activities centred on the local biodiversity and culture as well as the significance of the Nilgiri Biosphere Reserve.





# Happenings at the Bee Museum, Ooty

The Bee Museum at Ooty is an initiative of Keystone Foundation. Inaugurated in October 2006 by the then Secretary, Minister of Tribal Affairs, Ms. Meena Gupta, the museum, first of its kind with a focus on honey bees of India, tells of the ecology of the Nilgiri Biosphere Reserve and the livelihoods of the honey gatherers. The museum has a steady flow of visitors and activity modules for children.

## Some events

Students from Chennai NCS School, Chennai, Hebbron School, Ooty, Nilgiri Adivasi Welfare Association (NAWA), Kotagiri, Woodside School, Ooty, Kozikarai CSI GTR School, Mumbai M.D. Patel College, Hyderabad Environmental Science College, Hyderabad College and Water Science, Emerald Heights College, Ooty Govt. Arts College, Bangalore Yoga College, Attapadi Village, and Karikaiyoor, Bangalapedigai villages visited the Bee Museum during this period.

A Traditional Crafts Bazaar was organized at the end of December. Kurumba, Irula, and Toda artisans presented their traditional knowledge and skills via handicraft stalls. Visitors to the Bee Museum were able to interact with the artisans and appreciate their art.

**Cultural talk Rev Mulley:** The talk was held at the Bee Museum during the month of January 2012 and cultural anthropologist Rev Philip Mulley briefed about certain historic perspectives and why and how these linkages work. There were more than twenty participants including school children.

### Talk on Fragmentation, pollination web, plant and bee diversity in relation to pollination

The Bee Museum talk in February 2012 was by Professor Dr. Amots Dafni, Department of Evolutionary Biology on "Fragmentation, Pollination Web, Plant and Bee Diversity in Relation to Pollination – A case study of *Iris Artropurpurea* in Israel. He is a world renowned pollination ecologist. There were many students from schools and Arts College Ooty apart from other NNHS members. The Professor highlighted the importance of pollination among plant communities. He highlighted the case study of this species and responded to questions from the participants.

### Nilgirica Upstream

On the 28th of March 2012, a talk and discussion on a comprehensive design for holistic regeneration of the Nilgiris was organised at the Bee Museum. A group of around 20 interested



Dr. Amots Dafni

individuals attended and participated in the discussion. A presentation by Godwin Vasanth provided structure to the forum's discussion. Nilgirica Upstream is a holistic systems design for the regeneration of the region around the ancient mountains of Nilgiris in Southern India. The design addresses ecological, social and developmental problems at its root and connects the scenario around the massif to global processes, pressures and developments. The design is based



*Iris artropurpurea*

on intrinsic elements and underlying natural systems of the Nilgiris, and is focused on holistic regeneration of them. With high concentrations of efforts and attention being put into safeguarding the mountain system and much higher magnitudes of forces depleting the system: A perspective for systems thinking, for everyone within the region to take up, while merging it with comprehensive sets of principles, approaches and actionable steps, has been taken to leverage systemic change. More similar forums with different stakeholders within the region are to be organized.

### Wild Edible Plants

The month of March came to an end with an intriguing workshop on cooking with local and wild edible plants, conducted by Cata and Blanca of Ayurfusion. After briefing the participants on their journey with food, the cooking began. Participants helped prepare a localised variation of lasagna containing multiple types of greens that was then baked in a home-made oven. Additionally, two salads assembled primarily from locally found flowers, ragi bread and a scrumptious yam fruit cake were prepared and devoured by participants. Those that attended considered it to be a wonderful learning experience, both with regards the benefits of cooking with local and wild edible plants as well as developing a healthier lifestyle.

### Talk on the Temporal spread of Lantana

In April, Tarsh Thaekekara from The Shola Trust made a presentation on the challenges faced due to the fast expanding lantana camara in and around the forests of the Nilgiris. The origins of the plant, how it came to India (and to the Nilgiris), how much it has spread and the methods that are adopted in the management of the invasive species which is steadily taking over forest cover. A group of 20 enthusiastically participated in the discussion that followed centred on the issues that could possibly stem from promoting the use of lantana as well as attempting eradication of the plant.

### Bird identification workshop

Saneesh of Keystone Foundation conducted a workshop on the identification of birds through an audio-visual interaction with a very enthusiastic group of NNHS members. Participants spent time viewing images and listening to bird calls that made understanding and identifying them less complex. Based on positive feedback from participants, similar workshops will be conducted in the future.

### World Biodiversity day celebration

Posters celebrating the cultural and bio diversity of the Nilgiri Biosphere Reserve were displayed at the Bee Museum from the 21st to the 27th of May in honour of World Biodiversity Day that fell on the 22nd of the month.

### Human-Wildlife Conflict talk

As part of our series of talks on Human-wildlife conflict, Tarsh Thaekekara from The Shola Trust presented his research on Human-elephant conflict around Mudumalai Tiger Reserve. Around 15 locals from Ooty and Gudalur attended the talk and participated in the discussion that followed. Questions regarding the perception of nature, tolerance and mitigation measures and the role of the Forest Department in addressing related issues were raised and ideas challenged.

The newsletter of the Nilgiri Natural History Society (NNHS) aims to cover the many dimensions of natural history - conservation issues, lay observation, cultural representations and traditional knowledge. The newsletter will carry communications about research in Keystone Foundation in the areas of conservation, environmental governance, culture, livelihoods and enterprise. In keeping with the pan Nilgiri Biosphere Reserve (NBR) nature of the Society, space will be allocated for reporting of events/views from elsewhere within the country and from outside the country. Additionally a section will be devoted to research summaries by students who work in the region of the NBR. Guest editors will be invited for special editions. News items gleaned from printed sources about the NBR will be featured. Separate sections will carry information on NNHS and Bee Museum activities. The species focus will feature species of special conservation status, endemic to the Western Ghats and present in the NBR.

## SUBMISSION OF ARTICLE

The NNHS newsletter articles are reviewed by the Chief Editors and a member of the editorial board

Articles are invited for the following section: i. Natural History News from India (400 words); ii. Natural History News from the World (400 words); iii. Research Initiatives in the NBR - student contributions (400 words); iv. Species focus (250 words)

Articles should be submitted by email to: anita@keystone-foundation.org or archana@keystone-foundation.org

Authors should provide complete information including an email address and phone numbers. Articles needs to be submitted in standard word processor formats only. Rich text content and other forms are not accepted. Figures and texts need to be sent in separately with adequate labelling and numbering in context to the articles sent. Pictures in the manuscript also need to be sent in separately in TIFF, JPEG or PNG formats with resolution not less than 250 dpi

### Reference style:

Papers in Journals and other periodicals

Hanely, T.A. and Hanley, K.A. 1982. Food resources partitioning by sympatric ungulates on Great Basin rangeland. *Journal of Range Management* 35: 152-158.

Papers in Edited Books, Symposia Proceedings, etc

Cole, D.W. and Rapp, M. 1981. Elemental cycling in forest ecosystems. pp. 341-409. In: D.E. Reichle (ed.) *Dynamic Properties of Forest Ecosystems*. Cambridge University Press, Cambridge.

### Books

Lieth, H. and Whittaker, R.H. (eds.). 1976. *Primary Productivity of the Biosphere*. Springer-Verlag, Berlin.

Reports, Dissertations, etc

Sollins, P., Reichle, D.E. and Olson, J.S. 1973. *Organic Matter Budget and Model for a Southern Appalachian Liriodendron Forest*. Oak Ridge National Laboratory, Oak Ridge, U.S.A.

## *Trimeresurus malabaricus*

Saneesh C S



Photo: Saneesh C S

**Common names-** Rock Viper, Malabar Rock Pit Viper

**Distribution-** India, the Western Ghats from Maharashtra (Mahabaleshwar) south to Kanyakumari in at altitudes varying from 610- 2134m

**Habit and Habitat-** These are nocturnal snakes, also seen by day in the monsoons. Found in hill forests on low bushes and trees, or on rocks-often near stream edges/pools. Adults are also found on roots exposed by mud "road-cuttings" in forested areas. Most forms have a pair of kidney-shaped marks on the back of head, which may be obscure in darker-colored forms. Captive adults feed on mice, frogs and geckos. Colour variations include black and yellow mosaic pattern and a reddish-brown (sometimes almost maroon) form. It is reported that the pit vipers typically remain motionless in areas with dense cover of undergrowth, suggesting this species prefers moist places. They are slow but are capable of fast strikes. Their venom is mild causing moderate pain and swelling which subsides in a day or two.

**Status-** Not widespread, but reasonably common in range. Pit Viper species are habitat specific and abiotic factors within the habitat such as seasonal changes in temperature and humidity, influence the distribution of these snakes. Hence, the protection of habitat is an important aspect in conservation of these species.

**References:**

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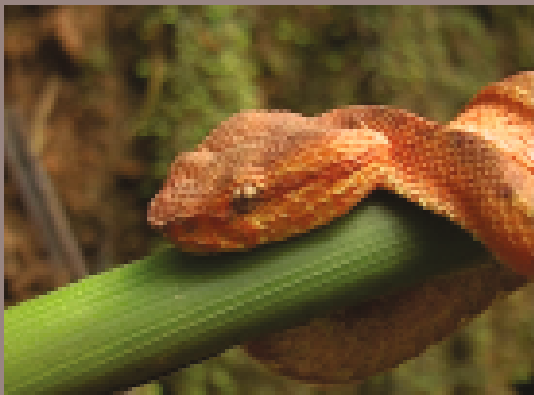


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