



**Local names:** Lodh – Hindi; Boodaganni, Changa, Manjatte – Kannada; Pachotii – Malayalam; Lodhrah – Sanskrit; Kambil vetti, Pithakkottai, Vaspa maram – Tamil, Bhoodani ka – (Kurumba), Bhooda rani (Irula).

**Distribution:** A small to medium size tree. It is distributed from India, Myanmar, Indo-China, China, Japan, Thailand, throughout Malesia, the Solomon Islands, eastern Australia, Vanuatu and Fiji. It is widely distributed in evergreen forests (from Himalaya to southern India) and Shola forests of Western Ghats.

**Flowering and Fruiting:** Flowering peak between June and September. Fruiting from February to May.

**Use:** The bark is used in the treatment of various ailments and diseases in the Nilgiris.

**Status:** The species has been assessed as lower risk near threatened (Karnataka), lower risk least concern (Kerala & Tamilnadu)

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# NEWSLETTER of the NILGIRI NATURAL HISTORY SOCIETY

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*Impatiens parasitica*  
(Balsaminaceae)

Indian parrot billed species, a succulent epiphyte. Commonly found in the wild from 1500m to 2100m. India - Kerala and Tamil nadu, endemic.

Photo credit: K. Chandra Sekar

A stiff cold is spread across the Reserve even as preparations are afoot for Pongal and Sankranthi, to welcome the Sun back on its north bound journey. Here at the NNHS, we are abuzz with treks, talks and many stimulating events of engagement with schools, plantation houses and many individuals willing to go the extra green mile.

In this fourth edition of the newsletter, we bring you reports of all these and travel with indigenous knowledge to ask some new questions. Tony Cunningham takes a closer look at the Symplocos, so common to these landscapes, and asks if its colourful dye lies hidden in the traditional handicraft of the Todas. Rita Banerji takes a bemused look at another common inhabitant – the Gaur, and wonders at its tenuous co-existence in human settlements. In an overview on tourism, Kunal Sharma muses aloud on dimensions of eco-tourism. Leo and Shiny offer useful information about the bees of the NBR and the importance of conserving their habitats.

In our regular features, our Natural Historian of the NBR is Dr Noble, whose ongoing work continues to lend a voice to many lesser known nooks of this landscape. From Amongst the Blue Hills, Rev Mulley walks us through the year with Badaga proverbs. And the selections in vernacular from the village wallpapers of Vellaricomбай, Appankaapu and Punanjanur are filled with news from the neighbouring forests. In Species Focus, we come back to the Symplocos with more details.

The Diary summarizes our activities over the past half-year. This includes the annual general body meeting of the NNHS, which threw up some exciting ideas for the future. Children's Day celebrations at the Bee Museum saw many enthusiastic young visitors, as did the talk on solid waste management.

We have been doing a round of brainstorming on the Newsletter – the design, format and content. We would be happy to receive your suggestions on these. Do write in with your valuable inputs.

Wishing you all a verdant, peaceful new year.

## Editorial Team

# Symplocos: mordants, textiles and aluminium hyperaccumulation

Anthony B. Cunningham

## Introduction

There is often more to seemingly insignificant plant species than meets the eye. Symplocos trees in sholas (evergreen montane forests) of the Nilgiris are a good example. Generally small to medium sized trees with simple leaves, on the surface there is nothing particularly remarkable about *Symplocos cochinchinensis*\*, *S. foliosa* or *S. pendula*, the typical Symplocos trees of shola forests. Yet as so often happens, we need to look deeper, particularly when it comes to the interface between nature and culture. The Nilgiris is a good place to do this; not only where shola forests are located, but also a landscape of great cultural significance, including to the Toda people whose fine textiles bring colour to the landscape (Figure 1) and whose livelihoods are intertwined with sholas and the surrounding grasslands. This short article brings together some of the threads of evidence based on plant chemistry and textile weaving in South-East Asia, then asks specific questions about traditional indigenous textile production.

## Symplocos, textiles and mordants

In the Western Ghats, seeds from some Symplocos species have cultural

significance (Figure 2). In the past, they are also likely to have been used for a specific part of textile production. Across many cultures, traditional cotton textile dye processes demonstrate local people's sophisticated knowledge of natural product chemistry. Every traditional textile is the product of this knowledge, combining the skills required for tying, mordanting, and dyeing cotton prior to weaving. Worldwide, the "colour-triad" of red, black and white has powerful symbolism across many cultures, including amongst indigenous people living in India (Figure 1). Red thread for traditional textiles is difficult and time-consuming to produce, so traditionally textiles with red color were worn as a sign of status. Mordants (from the old French mordre ("to bite")), are metallic compounds forming stable chemical bonds needed to fix dye to textile threads. These are crucial to production of colorfast natural red dyes, ensuring that textiles are colour-fast. Centuries before the development of modern analytical chemistry, textile dyers in South and South-East Asia were selecting plants that hyperaccumulate aluminium (Al) for use as mordants. In a recent study in Indonesia, all the plants we recorded as mordants are Al-hyperaccumulating

species<sup>1</sup>. These are defined as plants accumulating more than 10000 ppm of Al in dried leaf tissue<sup>2</sup>. Tea (*Camellia sinensis*) in the Theaceae is also known to be a hyperaccumulator of Al<sup>3</sup>

Aluminium (Al) hyperaccumulation is now known to be a primitive trait limited to particular plant taxa<sup>2</sup>. Most of the world's 250 Symplocos species could probably be used as natural mordants. Reasons for these suggestions are firstly that all Symplocos species tested during participatory research were excellent mordants. In practice, however, it is unlikely that all would have been used, as some species are rare or in inaccessible forests (or both). Secondly, Jansen et al (2002) found that 141 of 142 Symplocos species they tested (99.3%) qualified as Al-hyperaccumulators. Thirdly, the highest levels of Al found in any plant materials are from the genus Symplocos, with 72240 ppm recorded in *Symplocos spicata*, a mordant species used in Java. Sadly, nearly 20% of Symplocos species (44 species in total) are on the IUCN Red List, mainly due to habitat loss as a result of agricultural expansion. In the southern part of the Western Ghats, *Symplocos barberi* is an endangered species only found in the Agastyamalai Hills and Tirunelveli Hills and nowhere else in the world. *Symplocos anamallayana* is also only known from a tiny area of forest in the Anamalai and Palni ranges of Kerala and Tamil Nadu and is endangered<sup>4</sup>. Similar challenges face other endangered or vulnerable Symplocos species in Sri Lanka (*S. bractealis*), Ecuador (such as *S. badia*, *S. blancae* and several other species) and Mexico (*S. breedlovei*)<sup>5,6</sup>.

## Historical links: trade, textiles and local knowledge

From field observation, several aluminium hyper-accumulating plant genera share a common characteristic of Symplocos: the yellow colour of their dried leaves (Figure 3). This is due to a reaction between the flavinoids and aluminium compounds in the leaves and is a useful visual cue for local people.

Over 260 years ago, in Indonesia, Rumphius (1743) recorded local ethnobotanical knowledge of the "alum tree" (alun boom or arbor aluminosa, later identified as Symplocos) used by Indonesian textile producers. This drew the attention of European scientists to Al-hyperaccumulation in plants for the first



Figure 1: A Toda elder wearing the traditional red, black and white 'Puthukuli'



# Reflections – Gaur in My Garden

Rita Banerji

The Keystone Foundation campus in Kotagiri town (Nilgiris, Tamil Nadu) is flanked by tea gardens on two sides, a Eucalyptus and Pine patch on top of the hill and a road at the bottom. Over the last 4 years Gaur (Indian Bison), in herds of up to 15 strong, have been frequent visitors here. The residents wake up to find Gaur standing right outside the house, grazing in their gardens or staring in through the glass windows. Visitors to and residents of the campus are alert during the day and at night, hoping they will not walk into a Gaur.

When I first heard about it, I found it quite amusing – since this was not a typical human-animal conflict situation - the fact that you could see this wild animal in your backyard, grazing on the lawns, jumping over your fence seemed quite entertaining! However, this excitement of seeing wild Gaur on the doorstep, is seriously underpinned by the fear of a possible encounter. These are situations people have not dealt with before and neither have the Gaur. Everyone is learning.

I wanted to capture the bizarreness of the situation and that's when an idea for the film first emerged; and we began pursuing the story in June 2011. Over the next two months – a very strong picture of Gaur and human interaction emerged, not just around the campus, but across Kotagiri town. Everybody we met had a story to tell:

'I could not open the door of my house as a Gaur was sitting right in front of it'

'It was just here...almost like an elephant'

'The herd came at night...all the beans are gone'

Apart from the lighter stories of encounters – there were a few incidents where people had been killed. The Gaur is a shy animal, but if provoked can be dangerous. From a distance, it may not seem larger than a big bull - but that is deceptive - a male is almost 6 feet at shoulder height and a female, 5 feet. It weighs anything from 700 to 1500 kgs.

India has the largest population of the Gaur in the wild, estimated at about 23,500;

isolated in three pockets – the Northeast, Central India and the Western Ghats. These numbers are reported to be on the decline.

Going around Kotagiri – however - one felt that there were Gaur everywhere. On a night spent in the Dimbatty village we saw a whole herd entering and spreading out. While driving back we even saw a Gaur sitting right next to the road unperturbed by traffic lights.

Within townships, the Gaur is a new visitor and safety of both human and animals is a big concern. Can the situation be resolved? Have people learnt to live with it? Can anything be done, to make it safer for both humans and animals - in terms of preventing both injury and loss of life?

*(Rita Banerji is a renowned wildlife & environment film maker and her film 'Gaur in my Garden' is nearing completion. It promises to be an interesting insight into human wildlife conflicts)*



Figure 2 :Symplocos seeds as jewellery

time. Whether local knowledge of Symplocos use in Indonesia was discovered independently or was a lineage of knowledge from India is an interesting question since Indonesia has had trade links with India for centuries.

### What is the situation today?

It would be very interesting to know whether Symplocos were (or still are) used as a source of mordants in the Nilgiris. Most Toda textiles seem to be woven with bought (rather than homespun) thread that is dyed using synthetic, industrial processes.

It would be interesting to explore if local knowledge linked to textile production was prevalent in the past and if so what may have been the causes for its decline. Did the weavers of other regions in Tamil Nadu come to the Nilgiris to source leaves of Symplocos? Industrially produced and dyed cotton threads are relatively cheap as like other industrial products and they come at a price- loss of local knowledge and tradition.

\*For more details about the plant refer to the Species Focus section on the back cover.

*Dr. Tony Cunningham is an ethnobotanist who has recently joined CIFOR in Bogor, Indonesia as Principal Scientist in the Forests and Livelihoods programme. Since 2005, in his role as a member of People and Plants International (PPI) has worked with Threads of Life and YPBB (an Indonesian NGO) with traditional textile weavers in eastern Indonesia.*

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Figure 3. The dead leaves of Symplocos cochinchinensis showing their characteristic yellow colour



# Conserving bees and their habitats

Robert Leo and Shiny M. Rehel



The history and knowledge about honey runs parallel to that of human history. The role that bees play not only in providing honey but also in valuable pollination services has long been acknowledged. Albert Einstein once remarked that “if the bee disappeared off the surface of the globe, then man would only have four years of life left”. Alison Benjamin in her book 'A World Without Bees' mentions that one third of what we eat and wear, relies on bee pollination.

Indigenous communities traditionally associated honey as food, an ingredient to medicine, for fermentation, as a preservative, a requirement in religious, social and cultural rituals as well as for magic and crafts. Honey gathering and the ecology of the bees are richly represented in traditional knowledge and is widespread among indigenous cultures.

There are four major honey bee species found in the Indian sub continent. *Apis*

*dorsata* (Giant honey bee), *Apis florea* (Dwarf honey bee), *Apis cerana* (Asiatic Honey bee) and the *Trigona* spp. (stingless bees). At present all four species are under threat of population decline, primarily due to loss of habitat, which may have an impact on species survival and associated flora of the region.

The indigenous communities of the Nilgiris, like the Kurumbas, Irulas, Todas, Kotas, Kattunaickans and Paniyas have been practicing wild honey gathering and have used natural forest tree cavities to rear bees and collect honey for their everyday life. Traditional knowledge on bees is immense. Spotting of bees at water points, tracking bees during early morning sun light, locating colonies, systematic collection of honey and conserving the brood have been practiced for many generations. Knowledge about flowering in the forests is also high since it is related to bee life cycles. Bee behaviour is well

understood by the honey gatherers like when the bees will build the comb (January), rear the brood (February), when the pre honey flow season begins and ends (February –March), when the main honey flow season is on (mid-April – May) and the end of the honey season. This knowledge is also passed on to the children.

Knowledge about variations in bee species is also high amongst the honey gatherers. For instance the honey gatherers describe three types of *Apis cerana* bees:

1. Red colour bees found nesting at foot hills are docile, the queen bee is slender, and colonies are moderate in size and poor honey producers.
2. Yellow and brown banded bees are the most common, moderate in aggressiveness and moderate honey producers. They are generally found at middle and lower elevations.

3. The black bees are found at high altitude; are most aggressive, but good honey producers. These bees are unique because of their local migratory nature.

Bee populations are badly affected due to deforestation, changes in cropping patterns and increased usage of inorganic compounds in farming systems, along with the introduction of exotic honey bees and prevalence of the TSB virus and pests. The reduction in biodiversity has had a direct impact on the population of bee colonies.

Today, the occurrence of the devastating TSB virus disease is still at a low magnitude in the Nilgiris. Our project information reveals that 10 to 15 % of domesticated colonies are constantly affected by the virus. In our experience, we have seen that

during the 90s, the colony would tend to desert the comb as soon as the viral attack began, but nowadays, *Apis cerana* bees seem to have developed the ability of living with the virus attack to some extent. Every beekeeper gets an opportunity to save the colony at such intervals. The spread of the disease is low in the wild when compared to the managed colonies. Wild colonies infected with TSBV have been observed in some of our working areas and lately in other regions too, there are reports that the magnitude of the disease is high.

Beekeeping with *Apis cerana* bees has been promoted amongst indigenous



communities in Nilgiris by Keystone Foundation since 1994. In recent years the focus has widened to farmers, individuals, development agencies and Government schemes. Training and knowledge dissemination is a constant activity taken up by Keystone throughout the NBR. Apiaries have been established in Sigur, Pillur, Kotagiri and Asanur to train farmers and supply colonies. Additionally, applied research is regularly conducted in bee rearing managed techniques, appropriate hives and bee stock improvements.

In a study undertaken by Keystone Foundation, estimates of bee colonies in the wild were undertaken and it was found that *Apis cerana* were highest in the Shola forest types. These bees were also found at elevations ranging from 300m asl to 1840m asl in the NBR. It might be worth investigating if *A.cerana* populations are declining in the wild and if so at what rates. In an attempt to highlight the vulnerability of the species and its importance we have initiated a Bee Sanctuary in the high elevation mountains close to Bikkapathy mund in Kotagiri. This unique sanctuary is an initiative with the Hill Area Development Programme (HADP) and is a community based conservation effort. The Toda people have marked the boundaries of the sanctuary and are involved in regular monitoring of the bee populations within the sanctuary. We hope this model will encourage other regions to undertake conservation measures for bee populations and habitats.

*Robert Leo is Program Co-ordinator, Livelihoods at Keystone Foundation.*

*Shiny M. Rehel is a Ph. D., candidate and a consultant with Keystone Foundation.*





# Domains of Nilgiri Weather

Rev. Philip K. Mulley

European obsession with the climate of the Nilgiris has always been proverbial. The manner in which they extolled the climate was nothing short of romantic. Leaving aside Tennyson, who glorified the 'sweet half English air of the Nilgiris', a poet of the early 20th century, Hilton Brown said (Oxford: Basil Blackwell, 1936)

The Nilgiri sunshine!  
 Sheer gold out of blue,  
 Heart-winning, heart-warming,  
 Heart-waking anew;  
 The flowers for its fairies,  
 The birds for its Friends,  
 And its message - 'Life is excellent;  
 Life never ends.'

When I came across the above verse of the poem many years ago, the poet's 'sheer gold out of blue', its 'colourfulness' ignited my memory. I immediately realized that the Badaga bards of bygone days had also eulogised the silver, golden and floral canopy of the climate of the Blue Mountains. So different from the dreadful impact of climate change, we are threatened with, in these days!

How the ancestral folk of our habitat predicted the weather or defined the climate would turn out to be a long essay. The remarkable eleven bioclimatic types the experts have identified within the core areas of the Nilgiri Biosphere Reserve also need not detain us here. Brevity being the soul of the wisdom of our forerunners, I thought I should put down in writing, the following set of proverbs meant for the whole year and indicating the cycle of climate, our hills enjoyed in the good old days.



Monsoons (they were simply called Western and Eastern) were without failure predicted. The skyline across Nilgiri Peak (Karekottu) overlooking Malabar always forecast the onset of western monsoon and the migration of bee population and wind drifts also heralded the approach of the monsoons. A crucial monsoon corridor (from Hadathorai in the south to Kookalthorai in the North) was also recognised to exist, which probably recurved certain rainfall patterns during the Eastern monsoon.

The native folk viz., the Badagas, the Todas, the Kotas and the Kurumbas in the uplands followed a lunar calendar. The day before every New Moon was sighted, was reckoned as the beginning of a new month. An extra month (inter-calary) was added for an every two-year harmonization. The following Badaga proverbs (in translation) conceptualize the sequence of Nilgiri months.

Feb-Mar: May seed beds fill your fields

Mar-Apr: Pre-summer showers - there are four

Apr-May: Striking of sun is severe throughout

May-Jun: Sacred ever, is the salt-offering to the buffaloes

Jun-Jul: Threatening clouds, never fail to roar

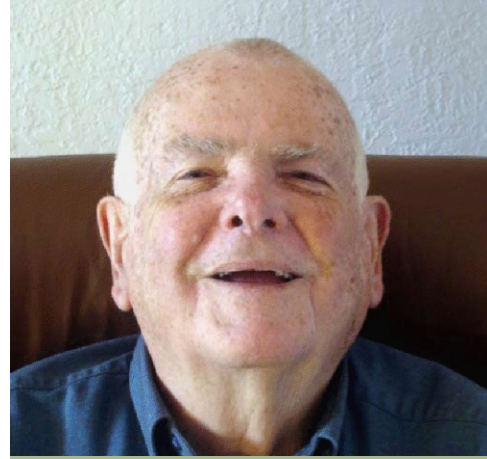
Jul-Aug: Bursting rains upset your hearth

Aug-Sep: Lightnings now, your Eastern rains will fail

Sep-Oct: Torrents now, will wash away even your herds

Oct-Nov: If rains fail, your threshing yards will crack to dust

Nov-Dec: Monsoon now, will be your head-waters for the season



## Natural Historians of the NBR

William Allister Noble was born in India, 1932 to a medical missionary couple working in Nagercoil, Tamil Nadu. He received most of his schooling at Brecks School, Ooty. He began field research on five Nilgiri communities, namely Todas, Badagas, Kotas, Kurumbas and Irulas during 1962 and has sustained a steady interest in all things Nilgiri. In 1968, he was awarded a PhD in Geography and Anthropology by Louisiana State University, USA for his dissertation on these Nilgiri communities. He continues to be a leading authority on the archaeology and biogeography of the Nilgiris. An assiduous scholar of Toda culture since 1966, he is also an internationally recognised monitor of Vernacular Architecture studies. He has contributed to the Vernacular Architecture Encyclopedia (University of Cambridge) on Nilgiri, Kerala and some tribal architecture.

Dr Noble is an expert in the study of antiquarian coins. He is also an avid Nilgiri bird enthusiast. He has bravely traipsed along the hilly terrains from Mukurthi peak to Kotruboli peak (Melseeme), both sacred to the Todas. His walks produced for engaging dialogue and brought attention to the varied natural features of the Nilgiris. He had an ardent desire to document the interface between forest communities and the biodiversity found within the Nilgiris, and wanted to learn more of their capacities to relate to postmodern facets of development. Of late, he has been largely instrumental in the setting up of a Toda biodiversity sanctuary beyond Ooty.

Dec-Jan: The frost now, will split even the sturdiest of your trees

Jan-Feb: Rains now, millets (esp. Korali) will run over your (bamboo) measures

Inter-calary summer month : Golden is the canopy of the shade

Rev. Philip K. Mulley is a renowned cultural anthropologist who is based in Kotagiri, Nilgiris.

# Tourism - An overview

Kunal Sharma



We all travel. We travel as it is one of the most satisfying experiences in our otherwise regular life. Travelling from the din of our daily lives, for leisure or combined with work, is an activity that is perhaps as necessary as work itself.

However travel and tourism has more to it than just the gratification of the self. Travel conveys the responsibility to conserve places that we visit. It is an educational activity as well, for it provides a whole new insight into the natural history, culture and traditions of diverse communities. It is a stepping stone to cross-cultural friendships. Travel and tourism in its pure form is an invigorating mélange of sights, smells, tastes and sounds of the extraordinary world that we live in and continue to learn from.

Completing a tour is not just an end to itself but a window to myriad colours of life. It is an opportunity not only to discover joy in the exquisiteness of the destination but also to ensure that the splendour remains undisturbed and cherished by future generations. Above all, Tourism is about creating lasting imprints not on places we stopped by, but on ourselves - Enlightened and Enthused by every single place we visit, meals we partake, sights we behold, cultures we salute and extra lives that we live...

### The Growth of Ecotourism

Ecotourism as we know it now grew mostly out of a desire to travel without causing harm to the environment. The decades after the Second World War witnessed an explosive growth of travel options for the common man. With ease of travel and means of access available to make this travel possible, we started seeing the world in fresh light. It was the third great era of discovery and virtually the entire planet became one huge tourism destination. The Americas, Europe and Oceania emerged as popular destinations for globetrotting and people took travelling seriously. However, over exposure of these places meant that new places had to be discovered and the process of unearthing sites continued. This mass exposure meant that no place could remain out of bounds.

### Eco Consciousness

While this travel brought large scale benefits to the people, with tourism being the source of one of the largest ever transfer of wealth from rich to the poorer countries, it brought about issues of over exposure and the associated ill effects of mass tourism. A large number of people wanted to break free from this clutch of mass tourism where the packages offered would be one size fit all and you may end up seeing your neighbor sitting next to you, wherever you went, be it the neighbourhood grocery shop at Bristol or the Natural History Museum at Beijing.

Man has become more conscious of his environment than what he was a few decades ago. He saw images of degradation around him and began questioning the validity of large dams, deforestation and a multitude of artificial alterations being made to the landscape. The view that the present form of

What is now ecotourism is a result of this change in the conscious visitor. Tourism and ecotourism is now the culmination of the unifying agenda of conservation, community development and benefit sharing.

tourism alienates the local by making him merely a service provider rather than a partner in tourism, also took roots. Perhaps, a plethora of these reasons were instrumental in bringing about a gradual but definite change in the minds of the people and travel became more ecologically conscious.

From the depths of this emerging consciousness grew a multitude of ways of travel.

Hector Ceballos Lascurian coined the term ecotourism in early 1980's. He defined it as "environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature that promotes conservation, low visitor negative impact and provides for beneficially active socio-economic involvement of local populations". Being environmentally responsible is essential as it stresses on ecological protection, while the emphasis on promotion of local livelihoods is a key factor

for a successful ecological tourism initiative.

### Setting Standards

The growth of ecotourism has not been smooth. The word ecotourism itself has been the focus of diverse interpretations and definitions. Ecotourism being a growing industry, new benchmarks have to be set and growing challenges to be met each passing day.

The word 'eco' has encountered many problems in the past and continues to do so today as well. Critics have pointed out that in being eco, we tend to damage the very place that we seek to visit and bring about negative influences to the people who live in these areas. Contrasting ideas keep brewing up, thus making the coming few decades even more exciting for ecotourism to begin fulfilling all the promises made and do so in a conscious manner.

The dilemma for us is to reconcile the principles of ecotourism while being flexible enough to appreciate the fact that standards on ecotourism continues to develop. Mere adherence to established norms discourages many to take the step from being a tourist to an ecotourist or being a conventional set up to an eco-oriented one. The challenge is to be more innovative in approach.

Whatever the pros and cons of the ecotourism movement, the ideologies prevailing in the past three decades have helped bring in an era of environment friendly tourism. Even large scale mass tourism sites are more conscious now than in the past. Examples such as the Nilgiris being declared as a plastic free district and Goa emerging as a favored destination for the

environmentally conscious and not just the utopia of the budget happy are such changes that have crept into the mass tourism movement.

In future, mainstream tourism and ecotourism should aim to protect the quality of the environment, enhance the cultural ethos of the region, ensure better livelihoods for the community and promote harmony while being ecologically sustainable. Acceptance of tourism as a social contributor and an agent of conservation is a vital step to design future tourism policy. The coming decades will be a test to develop tourism on these principles while ensuring that the ethos set are not diluted.

Kunal Sharma is the Resident Manager of Kabini River Lodge, JLR. Passionate about conservation, he has worked to promote ecotourism that benefits the environment and provides access to livelihoods for communities living adjacent to forest areas









# കാട്ടുപൂവ്

നിലമ്പൂരിലെ കുട്ടികൾ തയ്യാറാക്കിയ പരിസ്ഥിതി മാസിക



### നാട്ടുവിശേഷം

അപ്പകാപ്പു കോളനിയിൽ റേഷൻ കാർഡ് ഇല്ലാത്ത വർക്ക് ആഗസ്റ്റ് മാസത്തിൽ കാർഡിന് അപേക്ഷ നൽകി. ദേശീയ ഗ്രാമീണ തൊഴിലുറപ്പു പദ്ധതിയുമായി ബന്ധപ്പെട്ട് അപ്പകാപ്പ് അംഗൻവാടിയിൽ വച്ച് മീറ്റിംഗ് നടന്നു. ചടങ്ങിൽ കോളനി നിവാസികൾ, വാർഡു മെമ്പർ ഗോപാലൻ, അംഗനവാടി ടീച്ചർ എന്നിവർ പങ്കെടുത്തു. കോളനിയിലെ വിദ്യാർത്ഥികളുടെ കൊഴിഞ്ഞു പോക്ക് അറിയാൻ കോഴിക്കോട് കിർത്താട്സിൽ നിന്നും ഉദ്യോഗസ്ഥർ എത്തി. ഒക്ടോബർ മാസത്തിൽ ചളിക്കൽ കോളനിയിലെ നിവാസികളെ തൊഴിലുറപ്പു പദ്ധതിയിൽ ഉൾപ്പെടുത്തുന്നതിന് ചളിക്കൽ അംഗനവാടിയിൽ വച്ച് മീറ്റിംഗ് നടന്നു. ചടങ്ങിൽ കോളനി നിവാസികൾ വാർഡ് മെമ്പർ ഉമേഷ്, ഗോപാലൻ, അംഗനവാടി ടീച്ചർ എന്നിവർ പങ്കെടുത്തു.

### വിരുന്നുകാർ

ആന- 5 തവണ, ആനറാഞ്ചി- 42 തവണ, തേൻ കുരുവി- 1 തവണ, വാൽകുലുക്കി- 10 തവണ, മണ്ണാത്തിക്കിളി- 2 തവണ, ഉപ്പൻ- 30 തവണ, ചാരക്കൊക്ക്-9 തവണ, നിർക്കൊക്ക്- 24 തവണ, മരംകൊത്തി- 2 തവണ.



### അറിഞ്ഞോ?

- മഹിളാ സമഖ്യാ സൊസൈറ്റിയുടെ കീഴിൽ പുതിയ ടീച്ചറെ നിയമിച്ചു.
- നിലമ്പൂർ ഐ.റ്റി. ഡി. പി യിൽ ഉൾപ്പെടുത്തി കോളനിയിൽ അരിവിതരണവും, പോത്തുകൾഗവ: ആശുപത്രിയുടെ നേതൃത്വത്തിൽ ഗർഭിണികൾക്കും കുട്ടികൾക്കും മരുന്നുവിതരണവും നടന്നു.
- ഏട്ടപ്പാറ ചെമ്പാലിയിൽ ഒരു ആനചരിഞ്ഞു.



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

### കാട്ടുവിശേഷം

ആഗസ്റ്റ് അവസാനത്തോടുകൂടി അപ്പകാപ്പ് കോളനിയിൽ പാടക്കിഴങ്ങ്, നാഗാന്തി, നന്നാറിക്കിഴങ്ങ്, കുറിഞ്ഞി എന്നിവയുടെ ശേഖരണം ആരംഭിച്ചു. ഓക്ടോബർ അവസാനത്തോടുകൂടി നെല്ലിക്ക, കാട്ടിഞ്ചി എന്നിവയും ശേഖരിച്ചു വരുന്നു. മാഞ്ചിരിയിലും, വാണിയമ്പുഴയിലും കൂടുംവളിയും ശേഖരിക്കുന്നു.



ഇവർ ഇങ്ങിനെ നെടുങ്കയം കോളനിയിലെ ചാലഅമ്മിണി വന വിഭവങ്ങൾ ശേഖരിച്ച് ഉത്പന്നങ്ങൾ നിർമ്മിക്കുന്നതിൽ അതിവിദഗ്ദ്ധരാണ്. ഉദാഹരണത്തിന് ഇവർ നിർമ്മിക്കുന്ന പുൽപ്പായ എത്ര വിലയ്ക്കു വേണമെങ്കിലും വാങ്ങാൻ നെടുങ്കയം നിവാസികളും പുറമെയുള്ളവരും തയ്യാറാണ്. നെടുങ്കയത്തെ ചുരുക്കം ചില കുട്ടികൾ ഈ കൈത്തൊഴിൽ അമ്മിണിയിൽ നിന്നും പരിശീലിച്ചുവരുന്നു. കൂടാതെ കാട്ടുവിത്തുകൾ കോർത്തിണക്കിയ മാല, പുല്ലോല മെട്രെ, വള എന്നിവ കുട്ടികൾക്ക് അണിയാനും, കളിക്കാനും ഇപ്പോഴും നിർമ്മിച്ചു നൽകുന്നു ഈ മുത്തശ്ശി.



### തന്ത്രങ്ങൾ

വയറു വേദനയും, അതിസാരവും ഉള്ളപ്പോൾ പാണൽ വേർ കിളിച്ച് എടുത്ത്, നന്നായി കഴുകി വൃത്തിയാക്കി, കുഴമ്പു രൂപത്തിൽ അരച്ച് തെളി നീക്കം ചെയ്ത് ഉപ്പു ചേർത്ത് കഴിക്കുക.

### പേരിനു പിന്നിൽ

നാടുകാണി- 'കാണി' എന്നാൽ പണിയ സമുദായത്തിൽ ഇല്ല എന്നാണർത്ഥം. മുൻപ് തമിഴ്നാട്-കേരളരോഡ് നിർമ്മിക്കുന്നതിന് വഴി കാട്ടാൻ, വിദേശി സഹായം തേടിയത് ഒരു പണിയ യുവാവിനോടായിരുന്നു. കാട്ടിലൂടെ സഞ്ചരിച്ച അവർ ഒരു മലമുകളിലെത്തി. അവിടുന്ന് മറ്റു വഴികൾ കാണാതെ താഴേക്ക് നോക്കി ആ പണിയയുവാവ് പറഞ്ഞു- "ഇനി നാടുകാണി തമ്പ്രാ" എന്ന്. ഈ സ്ഥലം പിന്നീട് 'നാടുകാണി' എന്നറിയപ്പെടാൻ തുടങ്ങി.

### പ്രകൃതിയിൽ

ഈത് വിളവെടുപ്പുസംഘത്തിൽ 3 സ്ത്രീകളെ കൂടി ഉൾപ്പെടുത്തുവാനായി മീറ്റിംഗിൽ തീരുമാനമെടുത്തു. ഇവരുൾപ്പടെ ഇപ്പോൾ 15 മെമ്പർമാർ ഈ സംഘത്തിൽ പ്രവർത്തിക്കുന്നു.



### NBR Film and Resource Pack

The documentary on the Nilgiri Biosphere Reserve (NBR) as well as the NBR resource material for conservation education are undergoing final touches.

### Second Village conservation Awards

On August 9th, 2011 the second village conservation award was shared by Velleri Combei and Punanjanur villages. More details about the awards can be found at www.nnhs.in

### First Annual General Body Meeting

The first AGM was conducted on the 15th of August at which the previous year's annual report and audit report, were reviewed. Additionally, a core group was formed to meet on a monthly basis to assess and plan for NNHS activities.

### Longwood Shola and Kodanad Genepool trail

On 17th September, our trail began with an introduction to Longwood Shola through the recently launched Nature Interpretation Centre and by our resource person for the day, T Samraj, an Executive Member of the NNHS. Longwood Shola trail presented us with wonderful and immense floral and bird diversity. From here we moved on to the Kodanad Genepool, where a variety of plants endemic to the Nilgiris and Western Ghats were spotted. Keeping the group to a minimum allowed for interesting discussions and interactions.

### Film screenings at schools in Coonoor and Kotagiri

NNHS organised screenings of Honey Hunters of the Blue Mountains at Brindawar, Stanes Anglo-Indian and Riverside Public School in October. These screenings were followed by questions from students regarding the collection of wild honey and the indigenous communities involved in this activity. The purpose of this interaction was to initiate dialogue and invite students to participate in activities organised by the NNHS.

### Talk on Human-Wildlife Conflict, Coonoor

As an integral part of our celebration of people and wildlife, a talk and discussion on incidents and issues of Human-Wildlife Conflict in and around Coonoor was held at Coonoor Club on the 11th of October.

The turnout of around 45 persons primarily consisted of nearby estate owners and

managers along with Coonoor Club members and other interested individuals.

We began with a brief introduction on the NNHS followed by a presentation by Snehlata Nath of Keystone Foundation, also an Executive Member of the NNHS. A. Paulraj, Forest Range Officer, Coonoor spoke of human-wildlife conflict issues within his division and answered questions posed by those present. The dialogue that followed was engaging and filled with a variety of perspectives and solutions for mitigation.

It was additionally suggested that other such forums be organised, including more stakeholders. The NNHS plans on taking this discussion further and organising similar events in Kotagiri and Ooty.

### GTR school poster competition

During the month of November, a poster competition was held at the Government Tribal Residential (GTR) Schools at Sigur and Pillur. The children were asked to draw and write about their ideas on 'Environment and Waste' and possible ways of solid waste management.

### Sigur trail

The Sigur Plateau is at the centre of the Nilgiri Hills and Eastern Ghats and is a crucial area of wildlife habitats as it links the two regions. Around 700m above sea level, the dry-deciduous forest that covers the plateau provided a different variety of flora and fauna to be appreciated.

On the 19th of November, after gathering at the Keystone Resource Centre at Vazhaithottam, the group of 15 participants proceeded to Anaikatti from where the trail into the forest began.

The Sigur Plateau was excellent for trekking and with resource person, Senthil Prasad, we were able to enjoy the beautiful adjoining forest areas, hilly terrain and enchanting wildlife. In spite of the oppressive heat, we were rewarded with sightings of numerous elephants, spotted deer, common langur, peacock and sambar. Bird lovers also found the place interesting due to the amount of birds we were able to spot, especially the critically endangered Indian white backed vulture.



Nilgiri Natural History Society endeavors to redefine life, nature and humanity through an ecologically sound and responsible value system. It aims to permeate manifestations of actions and thought processes across all walks of life. Imagination and inspiration are core to the Nilgiri Natural History Society.

- To promote ecological awareness among people
- To design and implement projects aimed at promoting an ecologically sound and socially responsible value system
- To undertake research activities towards furthering the knowledge base on the natural history of the region
- To exchange all information with other organisations, groups and individuals working in the same area or other areas in India and abroad
- To network and exchange skills with other Non Governmental Organisations, Private limited companies, institutions, donor agencies, government institutions and the government
- To conduct campaigns and programmes for spreading awareness on the ecology
- To publish documents for generating awareness among the public on ecological issues, natural history etc.
- To promote and support research by other individuals, institutions, groups on areas of interest to the society
- To raise funds, accept donations, grants, subscriptions, gifts, benefactions, presents and other offerings in cash or kind or moveable or immovable property and to deal with the same for the purpose of the NNHS.



## 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, Ministry of Tribal Affairs, Ms. Meena Gupta, IFS, the museum, first of its kind in Asia 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

- In July, the following groups visited the Bee Museum: 35 Mavanalla Government Tribal Residential Middle School students; 395 students and 13 teachers from St. Theresa's High School, Fingerpost; 202 students and 9 teachers from Crescent Play School, Ooty; 163 students and 7 teachers from CSI CMM Higher Secondary School, Ooty.
- In August, 75 students and from CSI Hobart Middle School, Ooty, and 16 students from Aravenue, Panakudi Solai
- In October, 52 students from Andhra Pradesh visited the Bee Museum as part of the Sir Natraj Camp
- Children's day was celebrated on the 12th of November by the NNHS at the Bee Museum, Ooty. The gathering of 50 students, aging from 10 to 15 years, was possible due to their shared belief that people and biodiversity can co-exist. Many possible avenues stemming from this idea were explored throughout the day. Children from Stanes, Riverside and Rishi Valley School attended the programme. Chief Guest, Pranjali Bandhu, a writer and NNHS member from Ooty, spoke of her experiences with the natural world as a child and encouraged the children to continue

observing and engaging with the vast natural and cultural heritage of the Nilgiris. The children were given a tour of the Bee Museum which was followed by the screening of a number of short films and listening to bird calls. This was followed by a quiz on the same. Kota dancers and musicians then performed for the children who were in awe of their skilful movements. Soon, the dancers were joined by the children, and together they danced a traditional Kota dance. The programme commenced with the handing out of certificates and prizes to all the students, and a few group photographs.

To revive the tradition of regular informative modules at the Bee Museum, a talk on Waste Management centred on the work being carried out by the Blue Mountain Warriors with 500 households in villages around Kotagiri was organized by the NNHS on the 30th of November. The Blue Mountain Warriors are a group of children who monitor and maintain source segregation of waste within four villages. This project was initiated by Arun Bellie, a local from Kotagiri who strongly believes that source segregation is the answer to our problems with waste. In all 40 persons from a variety of age groups attended this talk. The Divisional Forest Officer (North), Mr. S Ramasubramanian, IFS, as well as the President and Vice-president of Hubbathalai Panchayat were in attendance. Individuals from Blue Mountains School, Monarch College, Inner Wheel, YWCA, Nilgiri Wildlife Association, NNHS members as well as other locals from Ooty were present. Various ideas on means of implementation were discussed as well and a follow-up on the same is in progress.



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](mailto:anita@keystone-foundation.org) or [archana@keystone-foundation.org](mailto:archana@keystone-foundation.org)

Authors should provide complete information including an email address and phone numbers. Articles need 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

Hanley, 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.



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