

# NEWSLETTER of the NILGIRI NATURAL HISTORY SOCIETY

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- | CHANGING LANDSCAPES AND PERCEPTIONS
- 3 LESSER KNOWN LANDSCAPES IN THE NILGIRIS  
HILL WETLANDS ARE ALSO IMPORTANT BIRD AREAS
- 4 ON SOME ENDEMIC AND POORLY KNOWN FISHES  
OF THE NILGIRI BIOSPHERE RESERVE
- 6 SACRED GROVES OF NILGIRIS
- 7 A SHORT REVIEW ON THE LIFE AND CONTRIBUTIONS  
OF A PRE- INDEPENDENCE NATURALIST TO THE FIELD  
OF INDIAN ORNITHOLOGY

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### Malabar Flying Frog (*Rhacophorus malabaricus*)

The Malabar Flying Frog is a moss frog species found in the Western Ghats of India. The term "flying frog" refers to its ability to break their fall by stretching the webbing between their toes when making leaps down from the treetops.

Photo credit: K. Jayaram

# EDITORIAL

In this, the 3<sup>rd</sup> issue of the fledgling NNHS's newsletter we bring you news of fresh water fishes, sacred groves, wetlands and natural historians of the Nilgiri Biosphere Reserve (NBR). This issue in many ways could have been titled the lesser known NBR. The articles stand out for their unique portrayal of relatively unknown facets of the NBR making one conscious of the fact that there is still so much to be experienced in this region. Of course these experiences are perhaps not new to the indigenous people and the older residents of the hills!

This time round we are happy that readers of our newsletter and visitors to the Nilgiris have contributed a number of articles for the newsletter. Mridula Paul takes a look at the history of land conversions and the colonial attitude towards the natural vegetation. Rajeev Raghavan gives us a view of the lesser known, rare and endemic fishes of the NBR. Rev. P.K.Mulley very crisply describes the sacred groves of the indigenous people of the Nilgiris and their role in conservation. Vanjuvalli Shridhar portrays a lesser known natural historian – a British lady who was also a resident of Kotagiri and her contributions to ornithology in India. Eminent photographer K. Jayaram from Coimbatore has made the cover page outstanding with this lesser known amphibian. And of course the newsletter would not have been complete without the efforts of a dedicated internal editorial team who write, edit, design and take great pictures.

The regional wall papers *Nisarga Suddhi* (in Kannada from Punanjanur village, Chamrajnagar), *Kaatu Poovu* (in Malayalam from Nilambur region) and *Bidaru Satta* (in Tamil from Kotagiri region) have featured the activities of their village conservation centers. The wall papers carry a section on individuals in their villages who are conservation champions, again, lesser known. Gopi in Kerala who is an organic farmer, Chenanjamma in Punanjanur and Laxmi in Vellericombei who know many medicinal plants and take children from the village for biodiversity walk.

The NNHS diary is full of plans for the future, with movies to be made and books to be published. The Bee Museum has buzzed a little less this quarter perhaps because our queen bee left.

As always we look forward to your comments, suggestions and any news that you may want to share with us. On behalf of the editorial team, Happy Reading!

Chief Editors

# Changing Landscapes and Perceptions

Mridula Paul

Before I came to live in the Nilgiris I viewed any sort of greenery as a good thing. I knew of no difference between the natural vegetation of a place and introduced exotic species, such as Acacia and Pine. They were trees, and somewhat leafy, and that was deemed good enough. Tea gardens were lovely, green, and organized, and rows and rows of tall Eucalyptus trees smelled great. During the first few months of my travel in the Nilgiris, I spent a lot of time in the company of ecologists and conservationists. Having seen their utmost contempt for Pine, Eucalyptus, and other exotics, I wondered what these trees had done to earn such wrath. It was only a few months into my stay that I began to learn about shola-grasslands and other natural vegetation of the Nilgiris, and how the introduction of exotic species had altered the landscape.

The indiscriminate felling of trees in the Nilgiris is recorded by British historians, early in the days of the colonial settlement at Ooty. The early government restrictions pertaining to the felling of trees applied only to those trees whose timber was valuable. Therefore such restrictions did not aid in the protection of shola species. In 1837 a rule was introduced according to which a special sanction of the government was required to cut any tree, and this sanction would not be granted if

the tree was ornamental or if it helped in shading a water source. Despite these measures, the felling continued without respite. The Government sanctioned the appointment of a forester and 6 peons in 1852 for what they quaintly termed 'conservancy purposes'. Soon, further rules were introduced, dividing forests into portions, and limiting the felling in these portions to ten-year intervals. Cut trees, irrespective of species, were replaced by quick-growing trees. However these restrictions did not apply to government-owned sholas where people were allowed to cut trees without sanction.

The early administration did not regard shola species as worthy of much protection as it was the prevailing view that shola timber was not valuable. There were, however, a few individuals who thought otherwise. Dr. Cleghorn, the first Conservator of Forests, in his appeal to the Government states, "In Ootacamund the ripe trees of the indigenous sholas are sold by auction, fetching a small return (Rupees 20 or 30 per shola)". As the influx of settlers increases, the original tree vegetation will disappear entirely, prohibitory rules will be futile, and then proprietors will plant according to their own requirements and a few probably for profit". In response, the government passed orders to afford further protection

to sholas. Yet, once again, in the absence of earnest administrative support, these efforts proved ineffectual.

The planting of exotic species of trees in the Nilgiris was first begun by private planters in lands around their residences. In 1856, the construction of the Wellington barracks led to a huge surge in demand for wood. The administration sanctioned a grant of Rs.10,000 for experimental plantation of exotic timber trees. A 100-acre plot was selected near Wellington, and the 'coarse grass and bracken' there made way for Australian tree species<sup>1</sup>. Soon other exotics such as **Acacia robusta** (melanoxylon), Deodars, and Pines were also planted. Once again we see that some individuals in the administration recognized the importance of sholas, and attempts were made to plant only shola species in degraded shola patches such as the Great Kota Shola (currently located within the Gurrenchy Estate, Coonoor). However it was more often the case that seeds of exotic species were disseminated indiscriminately, on hillsides and around lakes, and soon there were Acacias growing in the heart of



sholas. Many more plantations sprang up. An interesting excerpt from an early record gives us an insight into the planting methods followed by most plantations: Aramby Plantation (distance from Ootacamund is 1¾ miles) — This is the oldest Government Eucalyptus plantation at Ootacamund ; it was planted in 1863, 1864, and 1865, and consists of about 38 acres, 30 of which was shola land and the rest grass ; the plants were put down 6' by 6', it is almost entirely **Eucalyptus globulus**, but there are a few trees of other species which however have not succeeded so well.

By 1876 exotics had been planted in 960 acres, of which 339 acres were in and around Ootacamund, and 621 acres in and around Wellington and Coonoor<sup>1</sup>. Today approximately 10% of the Nilgiri District is under Eucalyptus, Acacia and Pine plantations<sup>3</sup>.

Another plant species that gained a huge foothold in the Nilgiris, and significantly displaced the natural vegetation is tea. Early government attempts in 1835 to cultivate quality tea with seeds obtained from China were unsuccessful. A few years later a couple of private traders independently undertook the risk of attempting tea cultivation, to much better results. However they faced much difficulty in obtaining forest land for cultivation and as one planter mentions in a letter to the Conservator of Forests, he was constrained to plant tea on poor grassland on which nothing would grow without being heavily manured'. It is interesting to

note that during these very early days, tea was allowed to grow into trees about 20 to 30 feet in height, unlike the pruned bushes of tea we are accustomed to seeing. Other private planters followed suit, and with the introduction of the Waste Land Rules, 1863, a considerable amount of land was freed for the use of tea. Specimens of Nilgiri tea which were sent to London for broker's opinions were declared of good quality.

While the earliest cultivators clamoured for forest land to convert to tea, some later cultivators began to see that there were large sheltered valleys of grass and scrub lands, especially on the eastern hill slopes which were ideal for tea cultivation. By about 1875 roughly 7000 acres of the district came under tea cultivation. As tea planting required the complete removal of the earlier vegetation, uniform and orderly lines of tea bushes replaced the native vegetation. The razing of natural vegetation to plant tea was not solely a colonial pursuit. In a project spanning three decades, from the 1970s to the 1990s, the Government of Tamil Nadu converted 11,119 acres of virgin forest land (much of which was shola grasslands) to tea cultivation for the rehabilitation of Srilankan repatriates<sup>4</sup>. Today tea is cultivated in about 1, 63,475 acres of the Nilgiris<sup>5</sup>.

The Nilgiris today is known for its endless tea gardens and for the tall corridors of eucalyptus that line its highways. The Eucalyptus is so synonymous with the



Nilgiris that the word for Eucalyptus in local parlance is 'Nilgiri'. Very few visitors know of the existence or significance of shola-grasslands. Yet scientists are now asking whether the criticism of all manner of invasive species is well founded. Human and natural communities now consist both of long-term residents and of new arrivals, and ecosystems are emerging that never existed before. It is impractical to try to restore ecosystems to some 'rightful' historical state, claim authors who believe it is time for conservationists to focus much more on the functions of species, and much less on where they originated<sup>5</sup>.

As somebody who experienced the Nilgiris in all its diversity for a year, I am curious to know how native species, especially of animals and birds, have adapted to this significant change in the landscape and vegetation of the Nilgiris over the past centuries. Might it be that an exotic is now a preferred habitat of some species of birds? Or might it be that some exotic has displaced the habitat of a rare plant? I think I might wait to learn some more before I glare at the next Eucalyptus I see.

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# LESSER KNOWN LANDSCAPES IN THE NILGIRIS- Hill wetlands are also Important Bird Areas

Senthil Prasad and Sumin George Thomas

The National Geographic website defines wetlands as an area of land whose soil is saturated with moisture either permanently or seasonally<sup>1</sup>. Such areas may also be covered partially or completely by shallow pools of water. The lesser known 'hill wetlands' (swamps, marshes and peat bogs) perform the same role as like the large wetlands. The hill wetlands are as yet less understood and deserve more attention for the special role they play in regulating the hydrology of the mountains and also for being a prime source for water.

The direct services rendered by hill wetlands for conservation of soil and water, support of unique plants and animals etc needs to be documented. Development planning has overlooked their role and has treated them as wastelands that have to be converted for agriculture, filled with soil and reclaimed or set aside for use as garbage dumping sites etc. In the Nilgiris district of Tamil Nadu one sees that the wetlands have been reduced in extent, by unplanned and unregulated development.

Recent conservation initiatives have led to the classification of hill wetlands as Important Bird Areas (IBA) by the International Bird Conservation network (IBCN). These IBAs were declared on the basis of presence/absence of certain species of birds and their current conservation status as per the guidelines of the IUCN Birdlife International assessment criteria. Listed below are some of the IBAs in the Nilgiris that are also prominent wetlands.

**a. Longwood Shola, Kotagiri:** (IBA 396; Status-NOP<sup>2</sup>; Criteria A1,A2<sup>3</sup>)

With a total extent of 116 hectares this montane evergreen forest, has an area of approximately 0.89 hectare of wetland. Located at 1947m asl the area is a reserved forest and has a fairly pristine vegetation cover. Wetland species like *Scirpus spp.*, *Ranunculus spp.*, *Pilea spp.*, are found in abundance, in addition to the *Juncus spp.*, and other wetland grasses. This wetland is the prime source of water for Kotagiri town and is protected by the Forest Department

and the active participation of local conservation groups. Various species of endemic birds are found here, such as Nilgiri Laughing Thrush, Black & Orange Flycatcher, Nilgiri Flycatcher, White bellied Short Wing, Mottled Wood Owl and Nilgiri Wood Pigeon.

**b. Bison Swamp, Kundah:** (IBA 385; Status-NOP; Criteria A1,A2)

The Bison Swamp has a total extent of 12 hectares and is situated in close proximity to the Mukurthi National Park. A shola grassland complex is the highlight of this landscape. Located at 2300m asl the area has intact shola forests interspersed with Acacia, Pine and Eucalyptus patches. It is also noticed that these species are encroaching into the wetland. Numerous streams flow into the wetland. Wetland species like *Pennisetum spp.*, *Oldenlandia spp.*, *Juncus spp.*, *Potentilla spp.*, and *Impatiens spp.* are found here. The swamp is home to numerous bird species like the Nilgiri Pipit, White Bellied Short Wing, Black & Orange Flycatcher, Nilgiri Flycatcher and the Grey Breasted Laughing Thrush. The wetland is under the jurisdiction of the Forest Department

**c. Mukurthi National Park** (Nadugani & Bangithapal IBA S.No. 399; Status Np<sup>4</sup>; Criteria A1,A2)

The Bangithapal & Nadugani wetlands are within the Mukurthi National Park, located at an altitude of 2400m asl and has a combined area of 4.96 hectares. The wetland has similar features of Bison Swamp, with the unique shola grassland complex. The habitat is more or less in its pristine state with minimum number of invasive and exotic species. Wetland plant species like *Eriocaulon spp.*, *Utricularia spp.*, and *Impatiens spp.* and abundant species of grasses and orchids are observed flourishing here. Bird species such as the Black and Orange Flycatcher, Malabar Whistling Thrush, Nilgiri Black Bird, Nilgiri Wood Pigeon and the migrant Kashmir Flycatcher are seen. The wetland is officially protected and has a status of National Park.

There is a need to highlight the importance

of these landscapes and Keystone Foundation proposes to launch a citizen's initiative to preserve and conserve the hill wetlands. Three hill wetlands in the Nilgiris been identified for pilot initiatives are Nedugula (Kotagiri), Bison Swamp (Kundah) and Tarnadmund (Nilgiris North). These prioritized sites will be visited and hill wetland restoration committees will be formed to take forward the implementation of a management plan which will come from a participatory process. Multi stakeholder and gender balanced committee formed for restoration & preservation of the wetlands and awareness programs will be planned and implemented in these regions.

A targeted approach will also be developed for schools and education authorities by encouraging them to include projects on wetlands. In the process a curriculum for Hill Wetlands which will be the first of its kind for this region will also be developed.

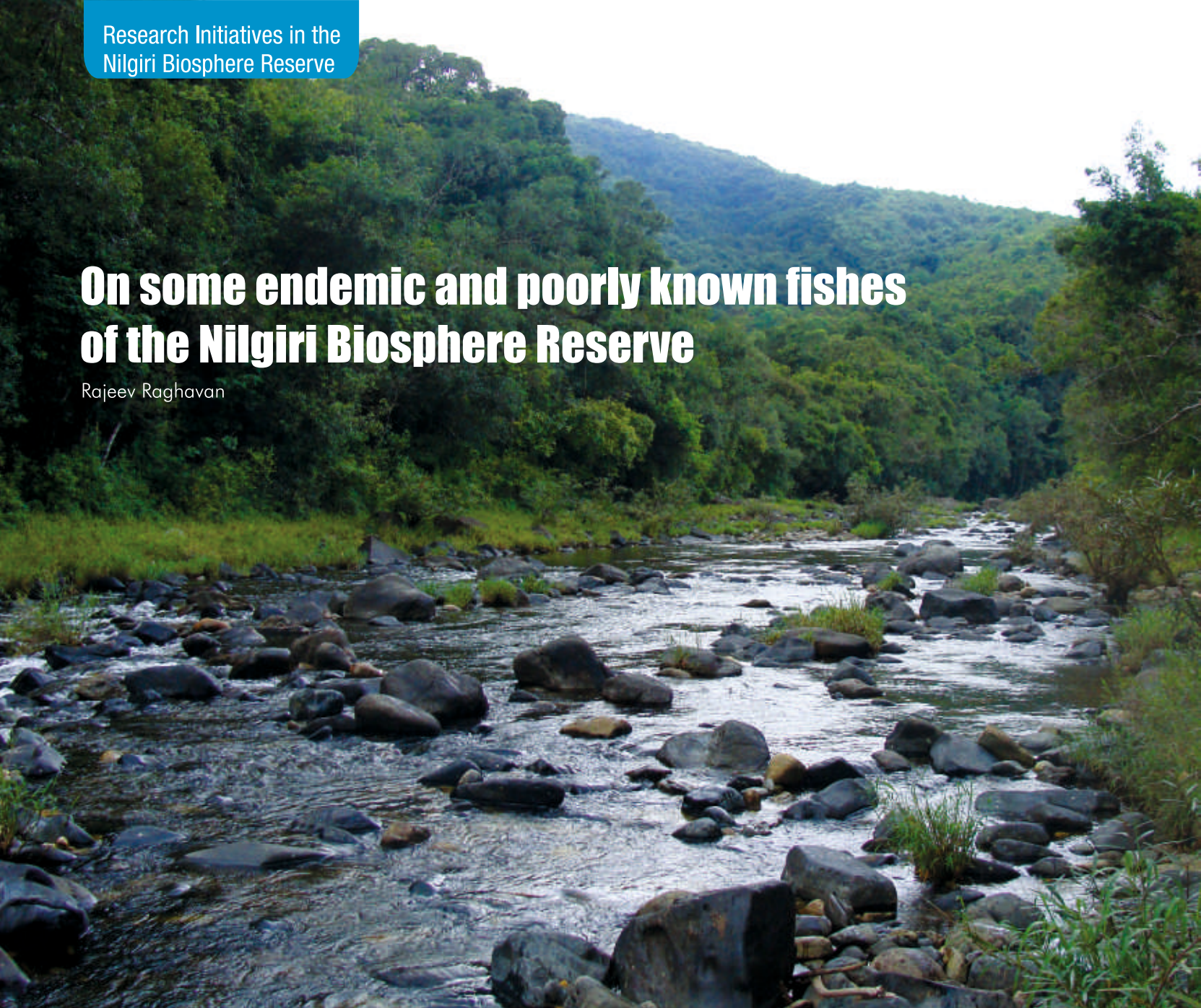
A research methodology for understanding hill wetland dynamics is envisaged that encompasses agriculture, grasslands and mixed kind of habitats that are associated with the hill wetlands. The plan we envisage for this project can be replicated easily and will be a reference point for planning authorities. We see awareness being generated in a large way on the significance of the hill wetlands and the need to preserve them and understand them better as a citizen's movement for conservation.

#### References

1. "National Geographic's Strange Days on Planet Earth: Glossary". Public Broadcasting Service.
2. NOP= Not Officially Protected.
3. A1- Globally Threatened Species; A2- Restricted Range Species; A3- Biome Restricted Assemblages.
4. NP= National Park  
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# On some endemic and poorly known fishes of the Nilgiri Biosphere Reserve

Rajeev Raghavan



**W**ith an area of around 5600 sq.km, the Nilgiri Biosphere Reserve (NBR) is one of the most important areas of conservation importance within the Western Ghats Biodiversity Hotspot. The NBR harbours a remarkable number of restricted range endemic species many of which are threatened due to a variety of anthropogenic stressors. Compared to higher taxa such as mammals and birds, freshwater fishes of the NBR are poorly known and have been 'out of sight' and 'out of mind' of the general public as well as scientists and policy makers. This presentation introduces seven species of endemic and poorly known freshwater fish found within the various drainages of the NBR.

known only from the Ooty and Pykara Lakes, as well as Avalanche and Kaity streams in the Nilgiri Hills of Tamil Nadu; and from the streams inside Wayanad Wildlife Sanctuary in Kerala. The species is listed as Endangered in the IUCN Red List due to its restricted range and threats from exotic species, habitat alteration and pollution.

**Glyptothorax davissinghi**, a species of torrent catfish (Family: Sisoridae) described from the Karimpuzha and Paanapuzha tributaries of River Chaliyar within the New Amarambalam Reserve Forest (NARF) in 1998. This species has an extremely restricted range (occupying an area of 300km<sup>2</sup>) and is known only from cascades and rapid microhabitats in fast flowing streams. **Glyptothorax davissinghi** is however threatened by destructive fishing practices including the use of dynamite and plant poison by the



**Glyptothorax davissinghi**

**Devario neilgherriensis** is a species of Danio (Family: Cyprinidae) endemic to the NBR. Currently, **D. neilgherriensis** is

local communities living within the NARF. This species has been listed as Endangered in the IUCN Red List.

Three species of hill stream loaches (Family: Balitoridae), **Mesonoemacheilus remadevii**, **Homaloptera menoni** and **Homaloptera pillaii** are endemic to the Kunthipuzha tributary of River Bharatapuzha and Bhavani River inside the Silent Valley National Park and the adjoining Muthikulam Reserve Forest. All these three species are extremely rare, and are known only from a few collections. These balitorids loaches, have an extremely restricted distribution to torrential streams with cobbles and sand as the major substratum at an altitude above 900m.

**Nemacheilus nilgiriensis** a hill stream loach (Family: Balitoridae) endemic to the drainages of the NBR within the states of Kerala, Karnataka and Tamil Nadu. This species is found in very slow flowing streams with sand and pebbles as substrates and shaded by canopy. **Nemacheilus nilgiriensis** is collected in

moderate numbers for the international aquarium pet trade and is also threatened by pollution in a number of rivers within the NBR.

**Pseudola guviaustrina** is a catfish species (Family: Erethistidae) recently described from the Kunthipuzha tributary of River Bharatapuzha from Mannarkad. This the first record of the genus **Pseudolaguvia** from Southern India and is therefore of considerable biogeographic interest. Until now this species is known only from the type locality.

Several of these endemic freshwater fishes are threatened by stressors such as habitat alteration, alien fish species, pollution from plantations as well as domestic sewage and destructive fishing practices. There is also an impending threat of climate change as much of the endemic fish diversity in the NBR are restricted to the cooler high altitude regions. There is hence a need to focus research and monitoring of these poorly known taxa and develop holistic strategies for conservation and management.

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*Mesonoemacheilus remadevii*

# SACRED GROVES OF NILGIRIS

Rev. PhilipK. Mulley



In recent times many researchers have taken up the study of what is called the “Sacred Grove” – complex of indigenous communities. In simple terms, the entire biota of vegetation within the sacred enclaves of the forest and so associated with “divine protection” is believed, by the Nilgiri communities to be the original abode of their god. Kurumbas call these sanctuaries “*Devasola?*” and Irulas call them “*Togasola?*”, both terms prefixed by “god”. Each sacred grove represents the virgin condition of the environment and is seen as vegetation in its climax formation. Even non-timber forest products in these locations are prohibited from being collected. Likewise no dead wood also can be picked up from within its environs. These forests also include rich patches of herbal and medicinal plants.

Among the Kurumbas, the priests who perform '*pujas*' in these sacred groves at the appointed times are expected to stay within the boundaries of the forest, have to clothe themselves with the barks of *Sulli* (*Curcuma longa*) found within the forest (may vary from location to location) and are not to be seen by others prior to the '*pujas*'. The '*pujas*' are conducted with *dhupa* (*Canarium strictum*) and *thude* (*Meliosma simplicifolia*) gathered from prime locations within the forest. The womenfolk are not allowed to enter the sacred grove area. The same taboo is also entertained by the Badagas and Todas.

A great deal of documentation of sacred groves in many parts of the country is now

available. A pioneering attempt by Keystone Foundation has listed (2008) 23 sacred grove complexes of Kurumbas of Nilgiris, with more of such sanctum sanctorums to be identified in the neighbouring Kurumba territories in *Baaniseemai* (Attapadi, Kerala) and *Melseemai* (Talamalai hills of Erode District). An inventory of such sites venerated by other indigenous communities of Nilgiris is yet to emerge.

Not many are aware that the Badagas and Todas also have symbiotic association with such heritage groves in their environments. The present day Todas can only recall seven of such groves (since abandoned) but Badagas among themselves maintain 32 of such sacred groves which they call *Bana* which is etymologically related to “forest”. The Kodavas of Kodagu district also used to call such sacred enclaves by similar sounding *Bane* (G. Ritcher, 1870). In present times these are called “*Devarakaadus*” (god's forests) in Kodagu.

Badagas like Kurumbas of old, have zealously preserved and reinforced ancestral commemorative links with these sacred groves. While Kurumbas of present times have largely lost the vigour of these rituals once undertaken in pristine surroundings, the Badagas are very punctilious regarding this hoary practice. Kurumbas conduct '*pujas*' every year, prior to sowing, immediately after new moon in the month of April. The Badagas offer these rituals every year at the close of their lunar month on Monday/Tuesday

following June/July season. For the Badagas of yesteryears, it was their in-gathering festival and hence associated with fertility (Forest as Protector). Each of these Badaga sacred groves, even to this day, belongs to the specific patriclan of the Badaga commune concerned.

Many of the high - altitude Badaga and Toda spots are located on elevations above adjoining marshlands, under-pinning watershed niches. There were also at least four other categories of forests in Badaga reckoning, which did not have any access to any kind of encroachment. Unfortunately, large tracts of these forests were recklessly swallowed up by European plantations. When the particular lineage of officiants in the ritual hierarchy became extinct, the sacred groves also came to be abandoned, as happened in the case of many such Badaga, Toda and Kurumba sites.

In olden times the Badagas and Todas on the one hand and the Badagas and Kurumbas on the other hand, have also shared some of these sacred grove sites. Presently, Badagas and Kurumbas share one such site and the Badagas and Todas share two such sites. Interestingly enough, the Kaadu Nayakas of Nilambur (Kerala) who have shifted from Nilgiri uplands and the Badagas, employ certain terminology in relation to these habitats.

In most places in the country, these sacred groves have been dedicated to particular deities and they are said to be haunted by capricious hosts of them. Madhav Gadgil, a well-known researcher who studied sacred groves in Maharashtra (1994) said: “The stronger and more malevolent a deity, the greater its protection”. Regrettably for the anthropologists, no such stories about sacred groves abound in Nilgiris. Sacred groves in Nilgiris are perfectly secular. Post-modern methodology seeks to study these habitats in terms of allometric information and equation. The tree communities pertaining to these sacred groves and the carbon stocks in such fragmented forests are said to help identify strategies for conservation of biodiversity and ecosystem services.



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# A short review on the life and contributions of a pre-independence naturalist to the field of Indian ornithology

Vanjulavalli Sridhar

In India, the study of birds among other natural history pursuits was driven by Britishers who during the Colonial period were professionally civil servants and army officers who took to studying birds as a hobby.

T. C. Jerdon was the first person to make scientific observations on birds in India as early as 1839. Following Jerdon, A. O. Hume built a large network of people throughout the country and collected bird specimens and obtained information on their behaviour. They were also the subscribers of his journal "Stray Feathers". Most of them went unnoticed and some names were lost through time. One such person who dedicated her entire life to the study of birds, their behaviour, nests and eggs was an artist by name of Margaret Bushby Lascelles Cockburn, the first daughter born to M.D. Cockburn and his wife, Catherine J. Lascelles. She was born on the 21st of April, 1829, in Salem when her father was the Collector.

The Cockburn family shifted to Kotagiri soon after Margaret was born. Margaret was fascinated by birds and started watching them keenly. She took notes on bird behaviour and their breeding habits, especially the birds of Kotagiri, eventually becoming an amateur ornithologist. She has observed and recorded many local and migratory birds. She patiently monitored their nests and eggs and kept notes which are precise to the date of observation.

Taking after her father, M. D. Cockburn

who introduced planting of coffee to the Shervaroyan hills, Yercaud, she introduced the planting of tea in Kotagiri and developed plantations at her own interest. She took the help of the Chinese prisoners stationed at Naduvattam and Thiashola to teach the locals the art of cultivating tea. The Union Church in Kotagiri was a gift from Margaret to the converted Badaga population in 1867.

Margaret's notes on bird behaviour were extensively used by A.O. Hume in all three volumes of his work titled, "Nests and Eggs of Indian Birds". It is a very authentic record of her work as Hume himself has mentioned it. She was also a correspondent for his journal "Stray feathers" and contributed immensely to its substance.

She painted birds throughout her life. Her art work, chiefly water colours of birds, was compiled in three volumes. Volume I and II were titled "Nilgherry birds" and Volume III, "Miscellaneous". This was elaborately bound by the then CKS Press at Madras (present day Christian Literary Society) in 1858. Her work incorporated the local flora, fauna and even the people of Kotagiri as her subjects. Her contributions to Hume's work disappeared with the unfortunate loss of his own work. It was in 1997 when her great grand-niece, Ms. Janette Reid Gordon, bequeathed all the volumes of art work by Margaret to the Natural History Museum, London, that Margaret's work was brought to light. The Museum, in turn published a diary in 2003 which displays her previously unpublished

exotic illustrations of birds, flowers, butterflies and plants.

Eugene. W. Oates in 1890 has named the Long Billed Pipit after Margaret as *Anthuscockburniae*. Margaret lived in Kotagiri till she breathed her last on 26th of March, 1928, at the age of 98. She was buried in Kotagiri and her grave can be found at the European Cemetery along with those of the other Cockburn's.

Mrs. Jhonston, 97, Kotagiri, remembers Margaret from when she was just a little girl. She describes Margaret as a very pleasing person, always presentable and highly dedicated to the Church. She also recollects with ease the long skirts the Scott's wore in those days. Margaret travelled in carriages driven by horses and lived at the present day '*missimabetta*'. This word came into usage since the Badagas called the Cockburns (esp. Margaret) '*Missima*', and the hill in which she lived as '*betta*'. This is the present day Queen's Hill of Kotagiri.

Most of Margaret Cockburn's work and contributions to ornithology are relatively unknown and what little is known has gone unnoticed. More substance on her life's work has to be found and brought to light since she is one to be celebrated. She is truly an unsung naturalist that Kotagiri can be proud of.

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# பீதரு சத்த

வெள்ளேரிகோம்பே ஊர் சிறுவர்களால் உருவாக்கப்பட்ட இயற்கை மாத இதழ்



## கற்றதும் அறிந்ததும்:

முதல் நாள் காலை சூழ்சிலையியல் என்றால் என்ன? என்று வினா எழுப்பினார். நாங்கள் அதற்கு பதில் ஏதும் கூறவில்லை. பின்னர் சூழ்சிலையியல் பற்றி விரிவாக எடுத்துரைத்தார். உணவுசங்கிலி என்றால் என்ன? என்ற கேள்விகளை கேட்டு அதற்கு ஒரு செயல்பாட்டை விளக்கினார். உணவுவலைக்கு சம்மந்தப்பட்ட எழுதியுள்ள பேப்பர் கையில் கொடுத்து நீண்ட கயிறு ஒன்றால் ஒன்றோடு ஒன்று தொடர்புடையவற்றை இணைக்க சொன்னபோது அங்கு ஒரு வலை உருவாயிற்று. மதியஉணவிற்கு பிறகு மைக்ரோ பிளாட் என்ற ஒரு செயலை செய்ய சொன்னார். அதாவது .ஒருமீட்டர் சதுரம் கொண்ட இடத்தை அளந்து அங்கு உள்ள அனைத்தையும் பட்டியளிட்டு சொன்னார்.

பூச்சிகள் என்றால் என்ன? என்பது பற்றி எங்களுக்கு சொல்லி கொடுத்துவிட்டு எத்தனைவகையான பூச்சிகளை உங்களுக்கு கண்டுபிடிக்க முடியும் என்று கேட்டார். பார்க்கும் பூச்சிகளை அதன் வண்ணம் மற்றும் உருவ அமைப்பை கொண்டு வகைபடுத்தி பட்டியளிட்டுக் கூறினார். நாங்கள் 18 லிருந்து 24 வரை எழுதியிருந்தோம்.

## பெரிய ஆலமரம்:

இந்த ஊரில் ஒரு பெரிய ஆலமரம் ஒன்று உள்ளது. இதன் விழுதுகள் வேர் ஊன்றி பெரிய தோற்றம் உடையதாக காணப்படுகிறது. இதன் வயது 200 ஆண்டுகள் இருக்கும் என மக்கள் கூறுகின்றனர்.

## இந்த மாதம் காட்டில் கிடைப்பவை

1. நெல்லிக்காய்காய்த்து முடிந்துவிட்டது
2. சிவக்காய்
3. நூரை கிசாங்கு
4. மாராடா சொப்பு
5. ஈந்த சொப்பு
6. சீகை சொப்பு

## கண்ணால் பார்த்தது காதால் கேட்டது

தமிழ் நாட்டில் உள்ள ஆறுகள் பற்றியும் அவை உற்பத்தியாகும் இடங்கள் பற்றியும் நாங்கள் அறிந்து கொண்டோம். ஆறுகள் பற்றி அறிந்தது மட்டும் அல்லாமல் அவை உற்பத்தியாகி கடலில் கலக்கும் இடங்கள் வரை வரைபடத்தில் பார்த்து தெரிந்து கொண்டோம்.



## ஒரு விளையாட்டு:

இந்த விளையாட்டானது ஒரே நேரத்தில் இரண்டு நினைவுகளை மனதில் வைத்துக் கொண்டு விளையாடும் விளையாட்டாகும். அதாவது எங்களை எல்லாம் வட்டமாக உட்கார விளையாடும் விளையாட்டாகும்.



## தெரிந்து கொள்ளுங்கள் இவரை:

**லட்சுமி** என்ற இவர் பிறந்து வளந்த ஊர் அறையூர் அருகில் உள்ள கோயில் மட்டம் என்பதாகும். வெள்ளேரிகோம்பே என்ற ஊரில் திருமணமாகி வாழ்ந்து வருகிறார். இவருக்கு வயது 45 ஆகும். அக்கிராமத்தில் வசிக்கும் மக்களுக்கு ஏற்படுகின்ற எல்லாவிதமான நோய்களுக்கும் மூலிகை மருத்துவம் செய்து வருகிறார். அதுமட்டுமின்றி பில்லி சூன்யம் செய்வதும் கற்றறிந்துள்ளார்.

## வன விலங்குகள் பற்றிய தகவல்கள்

1. கோடைகாலம் துவங்கிவிட்டதால் வனவிலங்குகள் நீர் தேடி ஊருக்குள் வருகின்றன.
2. யானைகள் நடமாட்டம் அதிகம் உள்ளது.

தமிழ் நாட்டில் உள்ள மாவட்டங்கள் பற்றியும் எத்தனை மாவட்டங்கள் உள்ளது என்று கூறினார். உதாரணமாக நாம் வசிக்கும் நீலகிரி மாவட்டத்தை சுற்றியுள்ள மாவட்டங்கள் எது என்றும் அவை அமைந்துள்ள இடத்தை வரைபடத்தில் காட்டி சொல்லி கொடுத்தார். எங்களை இரண்டு குழுவாக பிரித்து இந்திய வரைபடத்தில் உள்ள அனைத்து மாநிலங்களையும் தனித்தனியே வெட்டப் பட்டவரைபடத்தை எங்களுக்கு கொடுத்து அனைத்தையும் ஒன்றாக இணைக்க சொல்லி கொடுத்தார்.

Shivan is the Coordinator for activities at the Village Conservation Centre, Vellarikombe, Kotagiri.  
Saneesh is the Subject Manager- Conservation Education at Keystone Foundation (saneesh@keystone-foundation.org)



# ನಿಸರ್ಗ ಸುದ್ದಿ

ಪುಣಜನೂರು ಮಕ್ಕಳು ಸಿದ್ಧಪಡಿಸಿದ ಮಾಸಿಕ ಪರಿಸರ ಸುದ್ದಿ



## ಉಪಾಯಗಳು:

1. ಬೆಜ್ಜ ಸೆಕ್ಯೆ&ರಾಗಿಹಿಟ್ಟು: ಹೊಟ್ಟೆ ಹೊತಕ್ಕೆ ಬೆಜ್ಜಸೆಕ್ಯೆಯನ್ನು ಚೆನ್ನಾಗಿ ಪುಡಿಮಾಡಿ ರಾಗಿಹಿಟ್ಟಿನ ಜೊತೆಯಲ್ಲಿ ಬೆರಸಿ ಕುಡಿಯುವುದು.
2. ಹೊನ್ನೆಹಾಲು: ಬೆಂಕಿ ಸುಟ್ಟಗಾಯಕ್ಕೆ ಹೊನ್ನೆಹಾಲನ್ನು ಹಾಕುವುದರಿಂದ ಗಾಯ ವಾಸಿಯಾಗುತ್ತದೆ.
3. ಇಚ್ಚಿ-ಆಲದ ಹಾಲು: ಸಾಕು ಪ್ರಾಣಿಗಳಿಗೆ ನಾಯಿ, ದನ, ಕುರಿ ಇತ್ಯಾದಿಗಳಿಗೆ ಗಾಯದಲ್ಲಿ ಹುಳುಗಳನ್ನು ಕಂಡುಬಂದಲ್ಲಿ ಆಲ ಮತ್ತು ಇಚ್ಚಿಹಾಲನ್ನು ಹಾಕುವುದರಿಂದ ವಾಸಿಯಾಗುತ್ತದೆ.
4. ಆವರಿಕೆ ಹೂ: ಅರಿಸಿನ ಕಾಮಾಲೆಗೆ ಇದರ ಮೊಗ್ಗನ್ನು ಅರೆದು ಆಳೊಟ್ಟಿಯಲ್ಲಿ ಕುಡಿಸುವುದು.



## ಪ್ರಾಣಿಗಳ ಚಲನವಲನಗಳು:

- ಕಾಡಾನೆಗಳು ಗ್ರಾಮದ ಹತ್ತಿರಗಳಲ್ಲಿ ಬಂದು ಹೋಗುತ್ತಿವೆ. ಜನರು ಈವರ್ಷ ವ್ಯವಸಾಯ ಮಾಡಲು ಭಯ ಭೀತರಾಗಿದ್ದಾರೆ.
- ಈ ತಿಂಗಳು ಪುಣಜನೂರು ಭಾಗದ ಕೆಲವು ಗ್ರಾಮಗಳಿಗೆ (ಮನೆಯ ಇತ್ತಲೆಗಳಲ್ಲಿ ಬೇಳೆದ ಬಾಳೆ ತೆಂಗು ಗಳನ್ನು ನಾಶಮಾಡಿವೆ) ಮತ್ತು ವ್ಯವಸಾಯ ಭೂಮಿಗಳಿಗೂ ನಾಶವನ್ನು ಉಂಟುಮಾಡಿವೆ.

## ಈ ತಿಂಗಳು :

ವಲಚಿಯಣ್ಣ, ಮುತ್ತಗ ಹೂ, ಅರಳೆಕಾಯಿ, ಜಗಳಗಂಟಿಕಾಯಿ, ಬೇಲದ ಕಾಯಿ, ತಾರಿಕಾಯಿ, ಮುತ್ತಗ ಹೂ, ಇತ್ಯಾದಿಗಳು ಕಂಡುಬರುತ್ತದೆ ಮತ್ತು ಈ ತಿಂಗಳು ಪುಣಜನೂರು ವಿಭಾಗದಲ್ಲಿ ಕಡ್ಡಿಜೇನು(ಬಿದಿರು ಹುಂಟೆ, ಜೂಜಿಕ್ಕಿ, ಸುಂಡೆ ಮುಳ್ಳುಗಳಲ್ಲಿ) ಅಧಿಕವಾಗಿ ಕಂಡುಬರುತ್ತದೆ. ಬಾಗೆ ಹೂ, ಕಕ್ಕೆ ಹೂ, ಸಸಿ ಹೂ, ಹುಣಸೆ ಹೂ, ಬಿದಿರು ಮೊಳಕು, ಅಸರೆ ಹಣ್ಣು, ತಾರಿಕಾಯಿ.

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## ಮುಖ್ಯ ಸಮಾಚಾರಗಳು:

- ಈ ತಿಂಗಳು ಜೇನು ತೆಗೆಯುವ ಸಮಯವಾಗಿರುವುದರಿಂದ 10 ರಿಂದ 12 ಗುಂಪುಗಳು ಜೇನು ಸಂಗ್ರಹ ಕಾರ್ಯದಲ್ಲಿ ತೊಡಗಿದ್ದು ಚಾಮರಾಜನಗರ ಲ್ಯಾಂಪ್ ಗೆ ಪ್ರತಿ ಕೆ.ಜಿಗೆ 80ರೂ ಅಂತೆ ಮಾರಾಟ ಮಾಡುತ್ತಿದ್ದಾರೆ.
- ಮಳೆ ಆರಂಭವಾಗಿದ್ದು ಗ್ರಾಮಗಳ ಜನರು ವ್ಯವಸಾಯ ಭೂಮಿಯನ್ನು ಉಳುವ ಉಳಿಸುವುದರಲ್ಲಿ ನಿರತರಾಗಿದ್ದಾರೆ.



## ಕುತೂಹಲಗಳು !!

- ಮುಣುಕೈ ಗ್ರಾಮದ 60 ವರ್ಷ ವಯಸ್ಸಿನ ಚೆನ್ನಂಜಮ್ಮನು ಕಾಡಾನೆಯ ಒಡೆತಕ್ಕೆ ಸಿಕ್ಕಿ ಪಾರಾಗಿ ಸೊಂಡಿಲಿನಿಂದ ಎತ್ತಿ ಬೀಸಾಡಿರುತ್ತದೆ ಆದರೆ ಯಾವುದೇ ಗಾಯವಾಗದೆ/ ಅಪಾಯವಾಗದೆ ಪಾರಾಗಿದ್ದಾರೆ.
- ಮತ್ತು 21/4/2011 ರಂದು ಬಿದ್ದ ದಿಢೀರ್ ಗಾಳಿ ಮಳೆಯಿಂದ ಪುಣಜನೂರಿನ ಹಲವೆಡೆ ಹಲಸು ಮರ, ಮಾವಿನ ಮರಗಳು ಮುರಿದು ಬಿದ್ದಿವೆ ಇದರಿಂದ ಜನರಿಗೆ ತುಂಬ ಸಷ್ಟ ಉಂಟಾಗಿದೆ.



## ಇವರ ನೆಪ್ಪು ಇದೆಯಾ

ಚೆನ್ನಂಜಮ್ಮ  
 ವಯಸ್ಸು : 66  
 ಗ್ರಾಮ : ಶ್ರೀನಿವಾಸಪುರ ಕಾಲೋನಿ  
 ಜಿಲ್ಲೆ : ಚಾಮರಾಜನಗರ

ಇವರು ಪುಣಜನೂರು ಜೇಗಟೆ ಕೋಟೆ (ನರ್ಲು ಗದ್ದೆ)ಯಲ್ಲಿ ಹುಟ್ಟಿದ್ದು, 2 ಜನ ಅಕ್ಕ ತಂಗಿಯರು ತಂಗಿ ಮಾದಮ್ಮ. ಇವರ ತಂದೆ ಜಡೇಗೌಡ ತಾಯಿ ಮಾರೆಯಮ್ಮ. ಅಚಿದಿನ ಮುಖ್ಯ ಕೂಲಿ ಬಿದಿರು ಕಡಿಯುವುದು. ಈ ಬಿದಿರನ್ನು ಮುಸ್ಲೀಮರು ನಾಗವಳಿಗೆ ತೆಗೆದುಕೊಂಡು ಹೋಗುತ್ತಿದ್ದರು. ಕಾಲು ಹಾಗೂ ಅರ್ಧ ಏಕರೆಯಷ್ಟು ಜಮೀನನ್ನು ವ್ಯವಸಾಯ ಮಾಡುತ್ತಿದ್ದವು ಅದರಲ್ಲಿ ರಾಗಿ, ತೊಗರಿ, ಅವರೆ, ಜೋಳ ವ್ಯವಸಾಯ ಮಾಡುತ್ತಿದ್ದವು ಎನ್ನುತ್ತಾರೆ. ಆ ಸಮಯದಲ್ಲಿದ್ದ ಆಹಾರಗಳಿಗೆ ತುಂಬ ಕಷ್ಟವಾಗಿತ್ತು ಮತ್ತು ಬಟ್ಟೆಗಳಿಗೂ ತೊಂದರೆಯಾಗಿತ್ತು ಉದಾಹರಣೆ: ಒಂದು ಸೀರೆಯನ್ನು ತೆಗೆದರೆ ಅದನ್ನು ಎರಡು ಭಾಗವಾಗಿ ಕತ್ತರಿಸಿ ಒಂದು ಬಾಗವನ್ನು ಉಟ್ಟುಕೊಳ್ಳುವುದು ಮತ್ತೊಂದು ಭಾಗವನ್ನು ಮಲಗುವಾಗ ಒದ್ದಿಕೊಳ್ಳುವುದು ಹೀಗೆ ಜೀವನ ಮಾಡುತ್ತಿದ್ದವು ಎಂದು ಹೇಳುತ್ತಾರೆ. ಅಂದಿನ ದಿನದ ಮುಖ್ಯ ಆಹಾರವೆಂದರೆ ಸೊಪ್ಪುಗಳು, ಗಡ್ಡೆಗೆಣಸುಗಳು, ಗೋಳೆ, ತಿಂದು ಬದುಕುತ್ತಿದ್ದವು ಆದರೆ ಈಗಿನ ಕಾಲದಲ್ಲಿ ಆಹಾರಗಳಿಗೆ ತೊಂದರೆ ಇಲ್ಲ ಎಂದು ಹೇಳುತ್ತಾರೆ. ಆದರೂ ವರ್ಷದ ಒಂದು ಭಾರಿಯಾದರೂ ಗಣಸನ್ನು ತಿನ್ನಬೇಕು ಎಂದು ಹೇಳುತ್ತಾರೆ. ಇವರು ಚಿಕ್ಕದಿನದಲೂ ಕಡ್ಡಿಜೇನು ಮತ್ತು ತುಡುವ ಜೇನಿನನ್ನು ತೆಗೆಯುತ್ತಾರೆ



## ನಿಮಗಿದು ತಿಳಿದಿದೆಯೇ?

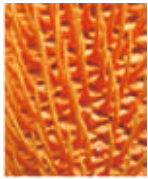
ಈ ತಿಂಗಳು ನಮ್ಮ ವಿಭಾಗದಲ್ಲಿ ಆನೆ ಬಂಬುರಾಯನ ಪೂಜೆ(ಪರುವ)ಯನ್ನು ಹತ್ತಿರದ ಹಳ್ಳಿಗಳಲ್ಲಿ (ದೊಡ್ಡಳ್ಳಿ, ಬಂಡ್ಡಳ್ಳಿ, ಉಪ್ಪಳ್ಳಿ) ಮಾಡುತ್ತಾರೆ.

ಈ ಪೂಜೆಯ ಮುಖ್ಯ ಉದ್ದೇಶವೇನೆಂದರೆ ಬೆಳೆದ ಬೆಳೆಗಳನ್ನು ಕಾಡುಪ್ರಾಣಿಗಳಿಂದ ನಾಶವಾಗದೆ ಬೆಳೆಯು ನಮಗೆ ದೊರಕದೆ ಆದ್ದರಿಂದ ಆನೆಯ ಹಸರಲ್ಲಿ ಆನೆಯ ಗೊಂಬೆಯನ್ನು ಮಾಡಿ ಅದಕ್ಕೆ ಪೂಜೆ ಸಲ್ಲಿಸಿ, ರಾಗಿ ರೊಟ್ಟಿ ಕುಂಬಳ ಕಾಯಿ ಸಾಂಬಾರನ್ನು ಮಾಡಿ ಎಡೆ ಇಟ್ಟು ಪೂಜೆ ಸಲ್ಲಿಸಿ ಬರುವ ವರ್ಷವೂ ಕೂಡ ಕಾಡುಪ್ರಾಣಿಗಳ ಹಾವಳಿ ಕಡಿಮೆಯಾಗಿ ಹೆಚ್ಚಿನ ಪಸಲನ್ನು ಕೊಡುವಂತೆ ಬೇಡಿಕೊಂಡು ಊಟ ಮಾಡಿ ಹಿಂತುರುಗುತ್ತಾರೆ



## ಮಾಡಿದ್ದು:

- ಈ ತಿಂಗಳು ಪುಣಜನೂರು ಸರ್ಕಾರಿ ಹಿರಿಯ ಪ್ರಾಥಮಿಕ ಶಾಲೆಯಲ್ಲಿ 12/1/11 ರಂದು ಪರಿಸರ ಸಂರಕ್ಷಣೆ ವಿಷಯವಾಗಿ ತರಗತಿಯನ್ನು ನಡೆಸಲಾಯಿತು.
- ದಿನಾಂಕ 19/1/10 ರಂದು 30 ವಿಧ್ಯಾರ್ಥಿಗಳನ್ನು ಪುಣಜನೂರು ಸರ್ಕಾರಿ ಹಿರಿಯ ಪ್ರಾಥಮಿಕ ಶಾಲೆಯ ಮುಖ್ಯಸ್ಥರಾದ ರತ್ನ ರವರು ಹಾಸನೂರಿನ ಪರಿಸರ ವಿವರಣೆ ಕೇಂದ್ರಕ್ಕೆ ಕರೆತರಲಾಯಿತು.
- ಮಾದಮ್ಮ ವಿಧ್ಯಾರ್ಥಿಗಳನ್ನು ಕಾಡಿಗೆ ಕರೆದುಕೊಂಡು ಹೋಗಿ ಅರಣ್ಯದ ಉಪಯೋಗವನ್ನು ವಿವರಿಸಿದರು. 12, 26/3/2011.



# കാട്ടുപൂവ്

നിലമ്പൂരിലെ കുട്ടികൾ തയ്യാറാക്കിയ പരിസ്ഥിതി മാസിക

## നാട്ടുവിശേഷം

മാർച്ചമാസത്തിൽ നിലമ്പൂരിലുടനീളം വനമൃഗശല്യം രൂക്ഷമായി അനുഭവപ്പെട്ടു. തണ്ടതങ്കല്ല് കോളനിയിൽ കാട്ടനയുടെ ആക്രമണം പതിവായി. ഇവിടെ താമസിക്കുന്നവരിൽ ഭൂരിഭാഗം ആളുകളും ബന്ധു വീടുകളിലേക്കും തമ്പുരാട്ടിക്കല്ലിലുള്ള സ്കൂളിലേക്കും താമസം മാറ്റി. വാണിയമ്പുഴ വെള്ളൻ (70) എന്നയാളെ ബന്ധുവീടിനടുത്തുവെച്ച് കാട്ടാന ആക്രമിച്ചു കൊലപ്പെടുത്തി. അപ്പകാപ്പിലെ രാമകൃഷ്ണന്റെ തെങ്ങും, ഏട്ടപ്പാറ മൊട്ടന്റെ വാഴ, തെങ്ങ് എന്നിവയും കാട്ടാനയുടെ ഭക്ഷണമായി മാറി. അപ്പകാപ്പിൽ കഴിഞ്ഞ വർഷം തുടങ്ങി വച്ച 5 വീടുകളുടെ പണി പൂർത്തിയായി. ഈ വർഷം ഇവിടെ പുതിയ 15 വീടുകൾ കൂടി അനുവദിച്ചിട്ടുണ്ട്. മാർച്ച മാസത്തിലെ ചുടിൽ കിണറുകളെല്ലാം വറ്റി വരണ്ടത് കൂടിവെള്ളക്ഷാമത്തിനു കാരണമായി. കോഴിക്കോട് മെഡിക്കൽ കോളേജ്, പെയിൻ ആൻഡ് പാലിയറ്റീവ് കെയർ എന്നിവരും സംയുക്തമായി ഒരു ആരോഗ്യ ബോധവൽക്കരണ സെമിനാർ സംഘടിപ്പിച്ചു.



## വിരുന്നുകാർ

ആന- 5 തവണ, മയിൽ- 3 തവണ, വാലുകുലുക്കി-25 തവണ, ആനറാഞ്ചി, തേൻ കുരുവി -2 തവണ മണ്ണാത്തിക്കിളി- 1 തവണ, ഇരട്ടത്തലച്ചി, കൊക്ക്-എല്ലാ ദിവസവും



Suresh is the Coordinator for activities at the Village Conservation Centre, Appankappu, Nilambur  
Saneesh is the Subject Manager- Conservation Education at Keystone Foundation (saneesh@keystone-foundation.org)



## അറിഞ്ഞോ?

മുണ്ടരേ അപ്പകാപ്പു വനത്തിൽ പലയിടത്തും വാച്ചർമാരെ നിയോഗിച്ചിരുന്നെങ്കിലും തീപിടുത്തമുണ്ടായി, 50 ഹെക്ടർ അടിക്കാട് കത്തിനശിച്ചു. ഏപ്രിൽമാസത്തിൽ 'പ്രകൃതി' സെന്ററിന്റെ മേൽക്കൂരയുടെ ഒരു ഭാഗം ആന തശർത്തു.

## പ്രകൃതിയിൽ

ഇടയ്ക്കുവെച്ചു പഠനം നിർത്തിയവരുടെ കണക്കെടുപ്പ് നടത്തി. പക്ഷി നിരീക്ഷണം തുടരുന്നു ('വിരുന്നുകാർ' കാണുക)

## കാട്ടുവിശേഷം

മാർച്ച് മാസത്തിന്റെ അവസാനത്തോടെ നിലമ്പൂർ മേഖലയിൽ തേൻ ശേഖരണം ആരംഭിച്ചു. അപ്പകാപ്പിൽ കണ്ണിമാങ്ങയും, മാഞ്ചീരിയിലും വാണിയമ്പുഴയിലും ശതാവരിയും ശേഖരിക്കുന്നുണ്ട്. ഏപ്രിൽ മാസത്തിന്റെ അവസാനത്തോടെ ജാതിപത്രി/പത്തിരിപൂവ് ശേഖരണം ആരംഭിച്ചു. ഈത്ത് മരം തളിർത്ത് പുവിടാൻ തുടങ്ങി. ആനകളുടെ കൂടിവെള്ളക്ഷാമം പരിഹരിക്കാനായി കാട്ടിൽ കുളങ്ങൾ നിർമ്മിച്ചു.



ജനങ്ങൾക്ക് നൽകി. ഇതിനു ശേഷം ഈ പ്രദേശം ഭൂദാനം എന്നറിയപ്പെടാൻ തുടങ്ങി.

## പേരിനു പിന്നിൽ

ഭൂദാനം: നിലമ്പൂർ താലൂക്കിൽപ്പെട്ട സ്ഥലമാണ് ഭൂദാനം. ഇത് പണ്ട് നിലമ്പൂർ കോവിലകത്തിന്റെ അധീനതയിലായിരുന്നു. ആചാര്യവീനോബ ഭാവയുടെ ഭൂദാനപ്രസ്ഥാനത്തിലൂടെ ഇവിടെ 1000 ഏക്കർ ഭൂമി



## തന്ത്രങ്ങൾ

കല്ലൂർവഞ്ചി: പുഴകളിൽ കണ്ടുവരുന്ന ഒരു ചെറുസസ്യമാണ് കല്ലൂർവഞ്ചി. വേനൽക്കാലത്തു കല്ലൂർവഞ്ചിയിട്ടു തിളപ്പിച്ച വെള്ളം കുടിക്കുന്നതു നല്ലതാണ്. മുത്രസംബന്ധമായ അസുഖങ്ങൾക്ക് മരുന്നായും ഈ സസ്യത്തെ ഉപയോഗിക്കാറുണ്ട്

## ഇവർ ഇങ്ങനെ!

മുണ്ടരേ, ഇരുട്ടുകുത്തിയിലെ ഒരു കർഷകനാണു ഗോപി. ജൈവകൃഷിരീതി പിൻതുടരുന്ന ഇദ്ദേഹത്തിന്റെ കൃഷിയിടം പച്ചക്കറികളും ഔഷധ സസ്യങ്ങളും കൊണ്ടു നിറഞ്ഞതാണ്. കൂടാതെ കോഴി, മുയൽ, തേനീച്ച എന്നിവയെയും ഇദ്ദേഹം വളർത്തുന്നുണ്ട്. സ്വന്തമാവശ്യത്തിനുള്ളതെടുത്ത് ബാക്കിയുള്ള ഉൽപ്പന്നങ്ങളെല്ലാം ആവശ്യക്കാർക്ക് ന്യായവിലക്ക് വിൽക്കുന്നതിലൂടെ ചെറിയ വരുമാനവും ഇയാൾക്കുണ്ട്. മുണ്ടരേ ആദിവാസി ഊരുകളിലെ ചെറുകിട കർഷകരുടെ കൃഷി സംബന്ധമായ എല്ലാ സംശയങ്ങളും തീർത്തുകൊടുക്കുന്നത് ഇദ്ദേഹമാണ്.



# Diary of Nilgiri Natural History Society

Saneesh CS

## Film

A documentary on the Nilgiri Biosphere Reserve (NBR) is in the pipeline and will cover the story of indigenous people's lives around the major rivers Chaliar, Bhavani, Kabani, and Moyar. NBR is home to more than 20 indigenous communities, the film tells the stories of the Toda, Cholanaikkan, Kurumba, and Irula indigenous people

This film is being produced and directed by members of the NNHS. The film is aimed at students, naturalists, researchers, tourists – everybody who has something to do with the NBR. The film will be screened by September 2011.

## NBR Resource Pack

An NBR resource material for conservation education is being designed for adults who work with children. This is being done with the understanding that:

1. Learning requires the active participation of the student
2. Children learn in a variety of ways and in different degrees
3. Learning is both an individual and a group process

The educator-led activities, provided in the NBR Resource Pack, encourages children to understand biodiversity and nature through the NBR. The resource pack is scheduled for publication by September 2011.

## Interpretation Centre at Longwood Shola, Kotagiri

A nature interpretation center at Longwood Shola was launched in June 2011. An abandoned building belonging to the Forest Department was renovated for use as an interpretation center by members of the NNHS. The effort was supported by the DFO North division, Shri S. Ramasubramanian (IFS). Information on the Nilgiri Biosphere Reserve, description of Longwood Shola and its importance, flora and fauna of the reserve, wetlands and water sources within the reserve, conservation values, and conservation action have been highlighted using posters. In the future live displays and more interactive information will be in place. A nature trail will be made within the reserve to promote awareness activities at the interpretation centre.

## Eco Quest, Mysore

Eco Quest, a nature discovery center, an

initiative of Nature Conservation Foundation (NCF, Mysore) was launched by famous herpetologist Romulus Whitaker in April of this year. This nature discovery center aims to provide a forum for citizens of Mysore to converse and connect with one another on nature, wildlife and conservation. The center has a hall with creative activities for young visitors, and provides facilities for educational activities relating to wildlife and conservation. Beside it is the Green Shop, an outlet of the Last Forest Enterprises, which markets fair trade and organic produce. Both these are located on New Kantharaj Urs Road, Saraswathipuram, Mysore.

## Conservation Education in the NBR

4 summer camps were organized in Conservation Centers located in the villages where Keystone Foundation works. Approximately 80 children took part and were from various indigenous communities of the NBR. Besides these camps, regular interactions are held at tribal residential schools across the NBR. These weekly interactions have been an ongoing activity.

## Heritage Walk

A heritage walk was organized in Coonoor on 5 February 2011, with Rev. P.K. Mulley being the resource person. There were 45



participants mostly school students from St. Hilda's, Ooty, Stanes School, Coonoor and members of NNHS. The walk was through the Attadi Road up to Teneffie, the highest peak in Coonoor. Tiger Hill, Brooklands, All Saint's Cemetery were the other places covered and the walk ended at the All Saint's Church. The first in a series of such planned walks, this one proved to be a big success.

*Saneesh is the Subject Manager- Conservation Education at Keystone Foundation (saneesh@keystone-foundation.org)*



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.

- a. To promote ecological awareness among people
- b. To design and implement projects aimed at promoting an ecologically sound and socially responsible value system
- c. To undertake research activities towards furthering the knowledge base on the natural history of the region
- d. To exchange all information with other organisations, groups and individuals working in the same area or other areas in India and abroad
- e. To network and exchange skills with other Non Governmental Organisations, Private limited companies, institutions, donor agencies, government institutions and the government
- f. To conduct campaigns and programmes for spreading awareness on the ecology
- g. To publish documents for generating awareness among the public on ecological issues, natural history etc.
- h. To promote and support research by other individuals, institutions, groups on areas of interest to the society
- i. 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.



**BEE MUSEUM**  
144-A, Club Road, Opp. Hill Bunk, Ooty - 643 001,  
The Nilgiris, Phone - 0423 2441340  
(www.nnhs.in/beemuseum)

## Happenings at the Bee Museum, Ooty

To register fill in this form and submit in person or send to the following address:

### APPLICATION FOR MEMBERSHIP

Please write or tick ( ) as applicable

1. Category: Student/Associate/Individual/Institution:

2. Name : \_\_\_\_\_

3. Date of birth : \_\_\_\_\_

4. Mailing address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Telephone No. Res : \_\_\_\_\_

Off : \_\_\_\_\_

Mobile : \_\_\_\_\_

Email: \_\_\_\_\_

6. Profession: \_\_\_\_\_

Name of Institution: \_\_\_\_\_

Designation: \_\_\_\_\_

7. Amount Rs. \_\_\_\_\_ by Cash/MO/Cheque/DD

8. If proposed by a NNHS Member, please mention Name & Membership No. \_\_\_\_\_

Place: \_\_\_\_\_ Signature

Date: \_\_\_\_\_



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, 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 also hosts special programs for visitors and activity modules for children. For a virtual stop over, visit [www.nnhs.in/beemuseum](http://www.nnhs.in/beemuseum)

#### Some events

- Kota community members showcased their music and dance for the students of Hari Shree Vidyalayam, R A Puram, Chennai at the museum premises and interacted with the students on January 31, 2011

- 34 school children of Hari Shree Vidyalayam, R A Puram, Chennai learn Kurumba painting and bees wax candle making with the staff of the museum- Jan 31, 2011

- 20 students from Punanjanur, Srinivasapura, and Vazhaithottam visited the Bee Museum- May 26, 2011

- Pushpinder Khajuria who worked tirelessly for the Bee Museum has moved on and we wish her lots of luck for the future. Pushpinder in the two years that she spent with the museum, pepped it up and interacted with schools and other establishments in Ooty. Great work Pushi!

The Bee museum is being managed by student volunteers and we hope we will get someone dedicated to run the show at Ooty.

#### Bee museum- visitor's comments

*This was a novel experience for us. The movie was fascinating. We learnt to respect the tribal culture which respects nature. The display is fascinating and the information is interesting. A very well kept place.*  
Students from Hari Shree Vidyalayam R A Puram, Chennai  
Mar 03, 2011

*Excellent documentary- extremely interesting for me as an English beekeeper- really interesting. Interesting culture- hope its maintained and protected for the future. What a find this museum is- thank you.*  
Susan Jenis, UK

*My family and I learnt for the first time about bees. We were very happy to see all the things kept in this museum. We also learnt from the CD played here. I feel very proud on this museum. Thanks.*  
Ramanand, Nagpur.  
Jan 31, 2011

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.



## Southern Birdwing - *Troides minos* (Cramer)

Shiny Mariam Rehel



Common Name: **SOUTHERN BIRDWING**

**Distribution:**

India, Endemic to Western Ghats (southern Maharashtra onwards).

**Habit and Habitat:**

Southern birdwing is the largest Indian butterfly. It is seen almost throughout the year and abundant during pre and post monsoon. Prefers evergreen, mixed deciduous forests, dry scrub and even agricultural fields. Active during morning hours with slow flight usually above seen flying above tree-tops and comes down to feed on flowers and for egg-laying.

Feeds on flowers of **Lantana sp., Ixora sp., Mussaenda sp., Clerodendron paniculatum, Aristolochia indica, Aristolochia tagala, Thottea siliquosa, Thottea wallichii**, etc.

**Status:**

The butterfly is locally very common in the southern and central Western Ghats. Also found in southern Maharashtra and northern Goa where it is uncommon. Despite its restricted range and endemism, the butterfly is not known to be threatened. IUCN recommends continuous monitoring of the species.



**Aristolochia tagala**

**References:**

Gunathilagaraj, K. 1998. Some South Indian Butterflies. Published by Nilgiri Wildlife Environment Association.

Kehimkar Issac. 2008. The book of Indian Butterflies. Published by Bombay Natural History Society, [http://en.wikipedia.org/wiki/Troides\\_minos](http://en.wikipedia.org/wiki/Troides_minos)