

NEWSLETTER of the NILGIRI NATURAL HISTORY SOCIETY

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Grey-headed Canary flycatcher *Culicicapa ceylonensis*

The Grey-headed Canary flycatcher sometimes known as the Grey-headed Flycatcher (*Culicicapa ceylonensis*) is a species of small flycatcher-like bird found in tropical Asia. This photo is taken at Hakkiattu, between Catherine Falls and Banagudi Shola, Kotagiri, Nilgiris.

Photo credit: A. Bhoopathi

EDITORIAL

The monsoon has arrived and returned and left most of the southern States with a large deficit in rainfall. Preparing for a difficult summer, with fears of the dry grass catching fire and drinking water crises already setting in, we take you up to cooler climes.

In this fifth edition of the Newsletter, we take you to the Upper reaches of the Nilgiri Plateau. A landscape of rolling grass lands and multi-hued *shola* forests. In this picturesque location are born many of the waters that give Tamil Nadu about a third of its hydroelectric power. This is the setting that caught the attention of the British, with its '*Neelgh eirri* air' so reminiscent of distant homelands. Here, as the undulating landscape winds around to form the south-western edge of the Deccan plateau, almost every valley floor holds a swamp, creating the vital third component in the shola-grassland ecosystem. There is no talking of these lands without mention of the buffaloes, admittedly fewer every season, and their indigenous herders – the Kota and the Toda people.

In this issue, we've picked all these elements to write about. Manju Vasudevan talks with 'Sound Uncle', long time 'walker of these hills', about the incredible biodiversity that the hill wetlands host. Arun Kanagavel travels to the edge to recall his impressions of surveys in Bison Swamp. A note on private appropriation of common resources comes from a project all three of us were part of and echoes the immediate need to pay attention to legal protection for these precious wetland resources. Strolling across the grasslands, Rev. Mulley takes us into Toda geography and Dr. Chhabra populates it with a worldview detailed with sacred and secular elements.

In our other regular features, the newsletters from the conservation centres in Punanjanur, Pillur and Nilambur are filled with local news of the forests. The NNHS has had a busy half year with talks in the Bee Museum and treks on the North eastern slopes. And our species focus is on a bush frog named after a local Nature enthusiast from the Reserve.

So, happy reading and if you're headed up the hills this summer, tread gently.

Chief Editors

Montane Sponges of the Nilgiris

- Manju Vasudevan
with contributions from A C Soundarrajan

In the upper Nilgiri mountains, two contrasting vegetation types are recognised: montane forests or Sholas, in local parlance called 'sholai' and natural grasslands. The sholas are invariably confined to sheltered valleys, hollows and depressions. In certain areas however, large stretches of shola forests occur in places in the folds of the mountains, particularly in the south/south west of the Nilgiri upper ranges (Kunda ranges). Then there are wetlands or swamps that mostly occur as flat beds in depressions between slopes and grasslands. They were classified as the 'tropical hill valley swamp forests' and have been referred to as littoral swamps and peatbogs during British times. 'Vayals', as they were locally called, are mostly found in the north/north-west slopes of the Nilgiris.

The swamps are discrete and patchy in nature, although large extensive swamps do occur. They are characteristically saturated with humiferous soils during the growing season and stagnant water during certain times of the year, but with the inevitable fresh water streams running out of them. Swamp soils are highly organic, creating a thick, black and nutrient-rich subterranean environment.

Just as shola forests and similar cloud forests that occur in tropical montane belts and along coastal fog zones are known to harvest moisture from the clouds, swampy areas in montane hills act like a sponge in absorbing stream flows from forest floor and recharging ground water. Much has been said about the conservation value of these wetlands, since they help maintain watersheds, prevent soil erosion and floods, as well as hold a range of rare and endemic flora and fauna, particularly amphibians. They are also important hunting ground for wild dogs and feeding ground for sambar deer.

Plant life in swamps

Meher-Homji's legendary study on Berijam wetland in Kodaikanal (Palani hill range) is considered a benchmark for any study or discussion on wetland ecology and conservation management. More recently, in a 2008 study by Keystone of plant diversity and rarity in a few swamps of Korakundah and upper Bhavani reserve Forest, most swamp species were reported to show large local abundance and narrow geographical distribution

Asteraceae, Cyperaceae and Poaceae are the most dominant families in many of

these swamps. Bright vermilion flowers of *Rhododendron arboretum* are a common sight on the edges of swamps, along with species such as *Gaultheria fragrantissima* and *Ilex wightiana*. Many of the plants are restricted to growing in these habitats and are thus more vulnerable to being wiped out with the disappearing wetlands. Take for instance the case of the endangered *Eriochrysis rangacharii*, Fischer. It is endemic to the swamps of the western upper Nilgiri plateau and is a habitat specialist. It was considered extinct by the scientific community, and was rediscovered a few years ago (Puyravaud et al. 2003). In the Nilgiri montane swamps, this species is threatened due to agricultural practices, plantation, hydroelectric reservoirs and grazing. Another perennial monocot that grows exclusively in these wetlands, *Acorus calamus*, Linn. (commonly known as Vasambu or sweet flag), is facing severe threat from indiscriminate harvest for the medicinal value of its rhizome.

A more recent study conducted by Keystone in selected swamps of the region revealed 19 endemic species. In swamps facing higher anthropogenic disturbance, the level of endemism dropped and the

density of invasive or weedy plants shot up. The study also suggested that two factors have a negative impact on plant diversity in the swamps - indiscriminate use of wetland water for irrigation and a surrounding matrix of eucalyptus or Acacia plantation.

Disturbance to swamp ecology

The history of threats to swamp habitats in the Nilgiris is rather long and complex. Plantations, fire, invasive species, urban spread, pressures from agriculture and grazing each has had a role to play in their current status.

Plantations of wattle, blue gum, pine, cypress, cinchona and tea were established one and a half centuries ago under the British Raj by clear felling of the Shola and burning vast stretches of montane grasslands, and were rapidly expanded after Independence from the early 1960s to 1990s. Most of these plantations fed the timber, pulp wood and leather industry. The destruction of forests directly affects precipitation facilitated by forest canopies and in turn deplete stream flows and ground water recharge (Bruijnzeel, 1986). Plantations on the other hand are known to drain out swamps, erode soils,

and over a period of time lead to altered soil chemistry of wetlands. Fire in the bordering plantations has been recorded as a common threat; burnt soil and debris flow down to the swamps in the torrential rain. The spread of invasives such as cookie grass and scotch broom have had a noticeable impact on the grassland ecosystem, affecting the water recharge cycle. The health of the swamps is clearly dependent on the forests and grasslands surrounding them but the unfortunate fact is that there is little natural landscape that remains in the region today.

Instances of swamps giving way to buildings and other forms of urban development are plenty in places like Ooty and Coonoor. Ironically, the arboretum in Ooty stands on a wetland. Even the railway station in Ooty lies adjacent to a mudflat, which in the 1970s used to be frequented by large groups of wading birds such as snipes and wood storks. In fact, the shrunken wetlands near the railway station and arboretum are still the breeding ground for white breasted water hen, moorhen and paddy bird.

Government agencies, until recently, used to advocate the “reclamation of

swampy areas”; in fact they recommended the “opening up of swamp drains for profitable cultivation”. This came from a lack of comprehending the unique and fragile ecosystems that the Nilgiris holds and giving in to pressure groups of vested interest. This myopic approach was clearly the consequence of viewing ‘wetlands’ as ‘wastelands’.

The network of montane swamps across the Nilgiris today probably covers less than 40% of what existed in early 1900s. In recent years, local environmental groups have brought up issues concerning black wattle and other plantation crops – how they are invasive introduced species that reduce stream flows in local catchments and threaten the native biodiversity. They have lobbied with the Forest Department and local government agencies to clear plantations and replant the areas with native vegetation in order to restore stream flows and native biodiversity. It is important also to comprehend the lesser understood disturbance factors while we continue to engage in campaigns. Research and management efforts will need to involve a range of stakeholder communities, be it farmers or pastoral people. It is time to concentrate our efforts for this may be our last chance to preserve and protect what is left.

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Wetlands

- Archana Sivaramakrishnan

Commons in function, privatised by appropriation

Hill Wetlands found scattered across the undulating slopes of the district are important ecological features. Wetlands have now been recognized as among the most productive ecosystems on earth, providing a living habitat for a host of life-forms and delivering several ecosystem services. While, the myriad values of wetlands have now been recognized and are being increasingly documented, policy action for their conservation still remains to be crafted.

A recently completed project on Hill Wetlands by the Keystone Foundation reiterates an earlier finding from a survey of 38 wetlands in the Nilgiris district. That tenurial clarity of wetlands that will lead to protection from land use change is still lacking. The single most important factor that contributes to this is that wetlands derive their resource categorization from that of the adjoining lands. For instance, wetlands located on private property are deemed to be private property while those located within public property are deemed public or common property as the case may be.

All wetlands are formed as part of a larger hydrological system in which the land cover (usually grasslands) over the catchment allow for the seepage of water that then follows the gradient to form swamps and marshes. The stagnant water allows for the interaction of plant and animal species to create a vibrant and complex ecosystem. Often, in the hills, there is a spring of clear water that emanates further downstream creating a viable drinking water source. The Nilgiris has several traditions where such springs

are located at the centre of cultural rituals of recognition and reverence. These institutionalized rituals also serve to protect these springs from over-use or exploitation.

The case of wetlands located on private property is an interesting case to discuss public ownership of resources that may be held privately. When individual owners decide to change the nature of a wetland that occurs on their private property, it is usually by blocking the feeder channels to the water body or by filling in earth in the wetland itself. This activity interferes with the hydrological flows that affect the supply to the downstream spring and also destroys the habitat of all the species that lived in the wetland. And yet, there can be no legal recourse or compensation for this. This phenomenon is increasingly seen in many villages and peri-urban areas where the increasing populations exacerbate the competing claims on land.

There is also the other instance in which even wetlands located in public property are rendered vulnerable to land use change. This is when government departments use wetland areas as dumping grounds for waste disposal or as soil dumps. This is again with callous disregard for the loss of downstream water users as well as other dependant species. There is then an urgent need for the identification and enumeration of wetlands located both within public and private lands. This could lead to the evolution of conservation strategies, such as payment for ecosystem services, enlisting private owners as well.

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An ecosystem that supports them all: **A journey to Bison Swamp**

- Arun Kanagavel

Nestled within the Blue Mountains among the myriad of shola grasslands, deciduous and evergreen forests, lay a unique, often overlooked ecosystem. It not only supports the numerous ecosystems within the matrix but also the livelihoods of numerous local communities. The indigenous Toda communities had recognized this in the past and a large portion of such ecosystems were considered sacred with restricted entry for people and livestock. These are the Hill Wetland ecosystems.

Among the many wetlands identified in the Blue Mountains, Bison Swamp, the focus of this article, holds special interest in terms of its locality, species composition and dynamics. Avidly demonstrating the dual role of wetlands, Bison Swamp is centrally located between the Korakundah Tea Estate and the Mukurthi National Park. The journey to the main wetland at Bison Swamp has three distinct glades, the vision from each supplementing the previous and building a need to move towards the end, to the “Swamp” itself.

Travelling across a route that begins from

the moody forest station, and the close-to-ruins electricity board colony, the setting well reflects the remoteness of the location. Winding down, this route opens into the first glade, a grassland among the Acacia and Pine plantations. The glade reveals a glimpse of what the swamp could have in store with the birds taking over. The Nilgiri Pipits (*Anthus nilghiriensis*) up on the Rhododendron trees and the Pied Bushchats (*Saxicola caprata*) perched squirmishly at the ends of the grasses below tweet away with little synchrony between one another. The lone Nilgiri Blackbird (*Turdus simillimus*) rummages through the ground litter especially around the fallen logs. The Oriental White-eyes (*Zosterops palpebrosus*) and the Grey-headed Canary-flycatchers (*Callicicapa ceylonensis*) with their sheer numbers, hurried flight and call patterns drown every other activity in the landscape. Within this scuttle, Nilgiri Flycatchers (*Emmias albicaudatus*) and Black-and-orange Flycatchers (*Ficedula nigrorufa*) hop from one branch to another, almost unmoved by the above mentioned frenzy. This marks the beginning of the wetland complex at Bison Swamp. The swamp has been designated as an

Important Bird Area (IN-TN-04; Islam & Rahmani 2004) as it harbors globally threatened avifauna and those that are range-restricted within the Western Ghats. Very often, Sambhar Deer and Wild Boars can also be seen consuming grass or water from the stagnant pools.

The uphill journey via the forest department managed route is endorsed with pug marks of larger cats, dried up elephant dung and quite fresh gaur dung. Meandering through the mud route, the vegetation begins to thicken transforming into evergreen shola trees from monoculture plantations. Numerous Bush Frogs can be seen under the leaf litter from here on, of which the Cross-backed Bush Frog (*Raorchestes signatus*) with its brilliantly streaked eye can often be seen on the ground cover or on tree trunks calling out, especially in the late evenings. The search for frogs eventually leads into the second glade, which allows a panoramic view of the locale. The calls of Nilgiri Langurs and the Malabar Giant Squirrels reverberate through the dense complex of shola and monoculture plantation. We have undertaken surveys here at different times of the year. Except

for the clear blue skies doubled up with the scorching sun between December and March the weather is largely always hung with clouds and mist allowing a glimpse of the swamp further away, through lapses in the grays. In this respect Bison Swamp seemed to exist in a bubble of its own. Through camera traps that we set along the route, we saw a leopard and a tiger walking across in the late mornings. The Sambhar Deer too were active throughout the day here unlike at another wetland (Tarnad Mund) where their activity was more pronounced in the night and early morning.

The last glade leads into the main wetland and reveals a central stream, supported by numerous streamlets that twist across the entire grassland and drain into it. A water-logged land mass is therefore set, interspersed with grass lumps that

offer ample leg holds to move across the swamp. A pair of Nilgiri Laughing Thrush (*Garulax cachinnans*) immediately rushes from the open into the shrubs while the mist unfolds to the whim of the existing winds. Here exist, two faunal species that as conservation flagships, have the capacity to garner the much-needed attention that hill wetlands require. The first of them, highly camouflaged and well-versed within the grasses is the Grassland Vine Snake (*Abaetulla perroteti*), dark emerald-green in colour with a black streak across its head. Much smaller than the Common Vine Snake (*Abaetulla nasuta*) and restricted to hill grasslands/wetlands in the Nilgiris, they coil up when threatened, flaring its head to reveal a black and white coloration beneath its body scales. The other, more closely associated with the stream and the streamlets, encountered



within small mud crevices or perched on adjoining vegetation is the Variable Ghat Frog (*Ghatixalus variabilis*). Restricted to the Nilgiris and of colors ranging between brilliant yellow to dirty green or brown, the patterns on the frogs resemble *Rorschach inkblots*.

The culmination of the three glades only initiates our understanding of these species and their relationship with the swamp in itself. Our current limited understanding of the high-elevation wetland ecosystem is a threat in itself. Due to this, wetlands like Bison Swamp will continue to feature beyond the boundaries of protected area and the sight of the hill dwellers. A “man-made” fire ravaged through the swamp and to add to the dismay neither the Vine snake nor the Ghat frog was encountered then. The Bison Swamp bubble burst and the gloom returned. And so did the snake and the frog. We did see them again beyond the third glade this season. Bison swamp could indeed benefit from more pro-active conservation measures.

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All photos by the author.

A stroll on the grass hills

- Rev. Philip K. Mulley



The grassland-shola complex of landscape that was so extensively obtained in the Western Ghats in the past, had always fascinated ecologists, holidaymakers, film makers et.al. The British colonial administrators also never lagged behind in offering a romantic perspective of these landforms. Brecks (quoted by Grigg 1880) describing “so much variety of beauty found in so small a compass” as the Nilgiris, has referred to the springy turf and many coloured sholas of those grassy tracts. He bids the visitors to the hills, to take a short ride in almost any direction from almost any part of the plateau, “passing along shady English looking lanes, sheltered by thickets of blackberry and wild rose; across bare breezy downs sometimes dotted with twisted crimson flowering rhododendron trees and intersected by swampy valleys where buffaloes wade and wallow through dense woods carpeted with rare beautiful ferns and gorgeous in spring-tints, beside which the colouring of an English autumn is faint and dull...he (the visitor) will find himself on a scene that changes like the figures in a kaleidoscope”. Condoning Brecks’ weakness for “English looking lanes” and “English autumn”, one should have no hesitation in saying hurrah to this ecological eulogy.

Now taking a phytogeographic cognisance of this vast vegetation, it is said that the oldest reconstructable vegetation history of grasslands dates back to about 38,000 years in the vicinity of Wenlock Downs. The palaeobotanical studies so far undertaken, seem to suggest that the human interference in these extensive stretches are fairly old, atleast 3000 years. Scientific analysis apart, the native people added a cultural dimension to the biotic status of this dominant upland cover. An ancient prayer uttered at certain rituals desired that the dew fall found on these heights would ‘sprout’ to fill this landscape. It is therefore not surprising to recall what Lengerke and Blasco (1988) have observed about “ the remarkable extent and actual perennality of montane grasslands” in the Nilgiris.

In modern and post-modern times, the subject of the shola land formation and equilibrium has generated contrary views regarding the determining factors in their evolution. Grigg, for instance, mentions that some of the sholas

do not bear the mark of great antiquity. Therefore, reassessing the relationship between grasslands and sholas needs to be undertaken. As Deborah Suttan (2012) points out, sholas may have emerged from the grasslands and not vice versa. What is of importance is that, in native idiom, the grasslands have always been associated with wetlands and not with sholas. These patches of wetlands marked boundaries and realms of various sorts in earlier times. And surely the coexistence of these wetland patches and grasslands was a kind of fait accompli in the biodiversity traditions nurtured by the indigenous folk. The wetland complex was also invariably linked to the herds of Nilgiri buffalo and the whole dynamics of their actual and ritual relationship to the livelihoods of their principal owners. Dr. William Noble, a seasoned Nilgiriologist (vide NNHS Newsletter December 2011), once wrote of Todas as “ creators of grasslands through buffalo herding...”. A native proverb postulated-“There are no wetlands un-waded by buffaloes and there are no buffaloes strangers to wetlands”. These buffaloes according to Toda, Badaga and Kota reckoning ‘belonged’ to the marshes of these mountains. Some authorities have identified characteristics of ‘swamp buffalo’ in the Nilgiri buffalo. But a renowned Toda specialist, Prof. Anthony Walker, remarks (2012) that recent genetic research indicates that Toda buffaloes to be of ‘riverine’ affinity. Then there is also the ‘wild buffalo’ (not to be confused with the feral ones) of long forgotten Nilgiri oral tradition. It seems more investigation is required in this field.

Last but not the least (at least pertaining to the past centuries) was the annual firing of grasslands that was resorted to by the natives. Earlier allusions to this practice have been made by Capt. Harkness (1832) and W.H.R. Rivers (1906). Badaga and Kota sources too make a reference to this practice which Walker calls “burning the pastures”. According to Prof. Walker (2008), the immediate purpose in burning the pastures was to guarantee a rapid growth of succulent new grass for buffalo grazing and he adds that the consequence of this practice may have created the unique grassland environment.

The annual firing of grasslands was preceded by a ritual known as “ Lighting the Deity Fire” among the Todas and as the “Lighting the New Fire” among the

Badagas. This took place at selected sacred hill tops, immediately after New Moon, in the tenth month of the year (November-December). Todas sometimes performed this ritual in alternative years. Local lore avers that there was atleast one sacred peak where Todas and Badagas shared the site (though the Badagas had several such sites in their own domains). When the particular Toda sib responsible for this rite became extinct, the Badagas also subsequently abandoned this site. In due course, the Irulas started conducting an elaborate “religious” ceremony on this specific site. But interestingly, Capt. Harkness (1832) opines that prior to Irulas, the Kurumbas exercised ritual jurisdiction over this site. However that may be, the peak came to gain prominence with the name of Rangasamy. Even Abbe Dubois, the French Catholic missionary to South India (Arr. 1792) considered it worthwhile to recognise this sacred peak in his writings.

The God’s Fire peaks in Toda sacred geography, according to Rivers and Walker, were always associated with the most ‘sacred dairy complexes’ of Todas. Many years ago, Dr. Noble (already mentioned) and the present writer were able to discover traces of such a ‘dairy complex’ in the neighbourhoods of the above mentioned peak. That the vicissitudes of the history of such sacred enclaves and grasslands have dramatically altered the ecological map of the Nilgiris, is no exaggeration. Beginning with the implementation of Waste Land Rules in 1863 (which legitimised the colonial land grabbings), invasions of plantations, large scale afforestation (with exotic species) and hydroelectric projects in the ‘wild west’, the grasslands in the Nilgiris have suffered severely. Is there any moratorium in sight? A sighing question indeed.

Post script: Even today the powers that be, are under the impression that the restoration of grasslands is to be achieved by removing exotics and replanting with native trees. Where does the grassland come into the picture now?

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பிதரு சத்த

வெள்ளைக்கோம்பே ஊர் சிறுவர்களால் உருவாக்கப்பட்ட இயற்கை மாத இதழ்



உலக ஆறுகள் தினம்

இந்த மாதம் பில்லூர் கீஸ்டோன் அலுவலகத்தில் உலக ஆறுகள் தினம் கொண்டாடப்பட்டது அதில் ஆறுகளைப் பற்றியும் அவற்றின் பாதுகாப்பு பற்றியும் மற்றும் ஆறுகள் எவ்வாறு உறுவாகின்றன என்றும் படம் வரைந்து தெறிந்து கொண்டோம். ஆறுகளின் பாதுகாப்பை மக்களுக்கு உணர்த்தும் வகையில் பில்லூர் பகுதியில் ஒரு பேரணி நடத்தப் பட்டது.

வனவிலங்குகள் பற்றிய தகவல்கள்

- மயில் கத்தினால் மழை வருவதற்கான அறிகுறி ஆகும்.
- மார்கழி மாதத்தில் மீன் அதிகமாகக் கிடைக்கும்.
- பில்லூர் பகுதிக்கு உட்பட்ட மாணு கிராமத்தில் நூற்றுக்கு மேற்பட்ட வாழை மரங்களை காட்டு யானைகள் சேதப்படுத்தின. கிராம மக்களால் தடுத்தும் முடியாமல் சேதப்படுத்தியது.



கண்ணால் பார்த்தது காதால் கேட்டது

இந்த மாதம் பில்லூர் கீஸ்டோன் அலுவலகத்தில் சுற்றுச்சூழல் மற்றும் பறவைகள் பற்றிய, பில்லூர் மக்களின் கருத்துக்கள் அனைத்தும் சுவர் ஒட்டி செய்தோம். அவற்றில் சில,

1. பெருமாட்டி கத்தினால் சண்டை நடக்கும்.
2. ஆந்தி கத்தினால் மழை பெய்யும்
3. காகம் கரைந்தால் உறவினர்கள் வருவார்கள்.

கற்றதும் அறிந்ததும்:

இந்த மாதம் பில்லூர் கீஸ்டோன் அலுவலகத்தில் கலாச்சரத்திற்கு பயன்படுத்தும் குழல்(கொகல்) செய்வதற்கான பயிற்சி மாணவர்களுக்கு அளிக்கப்பட்டது. இவற்றை திரு. முருகன் நீராடி அவர்கள் கற்றுக் கொடுத்தார். அது எங்களுக்கு மிகவும் பயனுள்ளதாக இருந்தது.



இம்மாதம் காட்டில் கிடைக்கும் பொருட்கள்

1. சீமறு புல்
2. முன்னை டாகு
3. சீங்கை டாகு
4. காக்கெ டாகு
5. சீனி மிளகாய்
6. எலந்தை பழம்
7. நெல்லிக்காய்,
8. கடுக்காய்,
9. பூச்சக்காய்
10. முள்கீரை
11. முன்னை கீரை

தெரிந்து கொள்ளுங்கள் இவரை

பள்ளி விடுமுறை நாட்களில் மற்றும் சனி ஞாயிறு கிழமைகளில் நீராடி கிராமத்தில் திருமதி, நஞ்சம்மாள் அவர்கள் எங்களை காட்டிற்கு அழைத்துச் செல்கின்றார். அவர் எங்களுக்கு காடு சம்பந்தமான நிறைய தகவல்களையும் மேலும் காட்டின் நன்மைகளையும், காடுகளை பாதுகாப்பதினால் அதன் மூலம் மழை பெறுகின்றோம் மற்றும் மனிதர்கள் உயிர் வாழவும் காடுகள் முக்கியமானது என்பதை எங்களுக்கு விளக்கினார். மற்றும் செடி, கொடி, காய், பழம், வேர், கிழங்கு பற்றி கற்று தறுவதுடன் அதன் மருத்துவ குணத்தினை பற்றியும் கற்றுத்தார்

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ನಿಸರ್ಗ ಸುದ್ದಿ

ಪುಣಜನೂರು ಮಕ್ಕಳು ಸಿದ್ಧಪಡಿಸಿದ ಮಾಸಿಕ ಪರಿಸರ ಸುದ್ದಿ



ಮುಖ್ಯ ಸಮಾಚಾರಗಳು

೯/೮/೨೦೧೨ ರಂದು ಶ್ರೀನಿವಾಸಪುರ ಕಾಲೋನಿಯಲ್ಲಿ ಅಂತರರಾಷ್ಟ್ರೀಯ ಆದಿವಾಸಿ ದಿನಾಚರಣೆಯನ್ನು ಕೀಸ್ಟೋನ್ ಸಂಸ್ಥೆಯ ಸಂಯೋಜನೆಯಲ್ಲಿ ಆಚರಣೆ ಮಾಡಲಾಯಿತು. ಈ ದಿನಾಚರಣೆಗೆ ೧೩೦ ಸೋಲಗ ಜನರು ಪುಣಜನೂರು ಸುತ್ತಮುತ್ತ ಇರುವ ೮ ಗ್ರಾಮಗಳಿಂದ ಭಾಗವಹಿಸಿದ್ದರು. ಸೋಲಗ ಜನರೇಅಡಿಗೆ (ಪಾರಂಪರೆ ಆಹಾರ) - ರಾಗಿಮುದ್ದೆ, ಅವರೆ ಸಾಂಬಾರು, ಕಡ್ಡಿಮಲ್ಲಗೆ ಹಾಗೂ ಸೀಗೆ ಸೊಪ್ಪುಗಳನ್ನು- ಮಾಡಿ ಊಟ ಮಾಡಿ ಸಂಭ್ರಮದಿಂದ ಆಚರಿಸಲಾಯಿತು.

ಗಿದ್ದೆಸಾಲು ಶಾಲೆಯಲ್ಲಿ ಪರಿಸರ ಸಂರಕ್ಷಣೆ ತಂಜಿಯನ್ನು ನಡೆಸಲಾಯಿತು.

ವ್ಯವಸಾಯ ಭೂಮಿಗಳಲ್ಲಿ ರಾಗಿ, ಜೋಳ, ಅವರೆ, ಹಲಸಂದೆ, ತೊಗರಿ ಬೆಳೆಗಳನ್ನು ಕಟಾವು ಮಾಡಿ ಮನೆಗಳಿಗೆ ಸೇರಿಸುವ ಕಾರ್ಯ ಜನರು ತೊಡಗಿ ಕೊಂಡಿದ್ದಾರೆ.

ಅರಣ್ಯ ಇಲಾಖೆಯ ವತಿಯಿಂದ ಪುಣಜನೂರು ಭಾಗದ ಎಲ್ಲಾ ಗಿರಿ ಜನರ ಪೋಡುಗಳಿಗೆ ಕಡಿಮೆ ಸೌದೆ ಉಪಯೋಗಿಸುವ ಒಲೆಯನ್ನು ವಿತರಿಸಲಾಗಿದೆ. ಜನರು ತುಂಬಾ ಉಪಯೋಗವಾಗುತ್ತಿದೆ ಹಾಗೂ ೩-೪ ಸೌದೆ ಇದ್ದರೆ ಸಾಕು ಒಂದು ಒತ್ತಿನ ಅಡುಗೆಯನ್ನು ಮಾಡಿಕೊಳ್ಳಬಹುದೆಂದು ಸಂತೋಷಪಡುತ್ತಿದ್ದಾರೆ.



ನಿಮಗೆ ಇದು ಗೊತ್ತಿದೆಯೇ?

ಕುರುಗು : ಈ ಗಿಡವು ೭ ವರ್ಷಕ್ಕೊಮ್ಮೆ ಹೂ ಬಿಡುವುದು ೨೦೧೨ ರಡಿಸಂಬರ್ ನಲ್ಲಿ ಹೂ ಬಿಟ್ಟಿದೆ. ಈ ಗಿಡವು ದೊಡ್ಡನ ಹೆಣೆ ಮತ್ತು ಮಣಿಕಲ್ಲು ಅರಣ್ಯ ಭಾಗಗಳಲ್ಲಿ ಕಂಡುಬರುತ್ತದೆ.



ಈ ತಿಂಗಳು

ನೆಲ್ಲಕಾಯಿ, ಬೇವಿನಕಾಯಿ, ಬೇಲದಕಾಯಿ, ಮಾಗಳಬೇರು, ತಾರಿಕಾಯಿ, ಅಣೆಲೆಕಾಯಿ, ಗಣೆಗಿಲು ಹೂ ಮುಂತಾದುವುಗಳನ್ನು ಕಾಣಬಹುದು.

ಡಿಸಂಬರ್ ತಿಂಗಳು ಪುಣಜನೂರು ಭಾಗದ ಕೆಲವು ಗ್ರಾಮಗಳಲ್ಲಿ ಅಧಿ ಕವಾಗಿ ಕಡ್ಡಿ ಜೇನುಗಳು ಕಂಡುಬರುತ್ತದೆ.

ಇವರ ನೆನಪು ಇದೆಯೇ?

ಮಾದೇಗೌಡ, ೭೨ ವರ್ಷ, ಗ್ರಾಮ : ಮುಣ್ಣುಕೈ ಇವರು ಹುಟ್ಟಿದ್ದು ಮುಣ್ಣುಕೈ ಗ್ರಾಮದಲ್ಲಿ. ತಾಯಿ ಮಾಸ್ತಮ್ಮ, ತಂದೆ ಮಲ್ಲೇಗೌಡ. ಇವರ ೩೨ ವರ್ಷ ವಯಸ್ಸಿನಲ್ಲಿ ಗೆಡ್ಡೆಸಾಲು ಗ್ರಾಮದ ಸಿದ್ಧಮ್ಮ ರವರನ್ನು ಮದುವೆಯಾದರು. ಇವರು ಹಿಂದಿನಿಂದಲೂ ಕಿರು ಅರಣ್ಯ ಉತ್ಪನ್ನಗಳನ್ನು (ಜೇನು, ಪಾಸೆ, ನೆಲ್ಲಕಾಯಿ ಮತ್ತು ಅಣೆಲೆಕಾಯಿ) ಸಂಗ್ರಹಿಸಿ ಮಾರಾಟ ಮಾಡಿ ಜೀವನ ಮಾಡುತ್ತಿದ್ದರು. ಅದಲ್ಲದೆ ಇವರು ಸುಮಾರು ೩೧ ಸ್ಥಳಗಳಲ್ಲಿ ಅಲೆಮಾರಿ ವ್ಯವಸಾಯವನ್ನು ಮಾಡಿದ್ದಾರೆ. ರಾಗಿ, ಜೋಳ, ಸಾಮೆ, ನವಣೆ, ಭತ್ತ, ಅಕ್ಕಿ ಇತ್ಯಾದಿ ಬೆಳೆಗಳನ್ನು ಬೆಳೆಯುತ್ತಿದ್ದರು. ಈಗ ಇವರಿಗೆ ೫ ಮಕ್ಕಳಿದ್ದಾರೆ. ಅರ್ಧ ಏಕರೆ ಜಮೀನು ಇದರಲ್ಲಿ ರಾಗಿ, ಜೋಳ, ಅರಿಸಿನ, ನಿಂಬೆಹಣ್ಣು, ನೀಬೆಹಣ್ಣು ಬೆಳೆಗಳನ್ನು ಬೆಳೆಯುತ್ತಿದ್ದಾರೆ. ಅಲ್ಲದೆ ಮುಣ್ಣುಕೈ ಗ್ರಾಮದ ಮುಖ್ಯಸ್ಥ ಹಾಗೂ ಲ್ಯಾಂಪ್ ಸಹಕಾರ ಸಂಘದ ನಿರ್ದೇಶರೂ ಆಗಿದ್ದಾರೆ.



ಕುತೂಹಲಗಳು

ಅಕ್ಟೋಬರ್ ತಿಂಗಳು ಸುಮಾರು ೧:೦೦ ಘಂಟೆ ಮಧ್ಯಾಹ್ನದ ಸಮಯಕುಂಬಾರಗುಂಡಿಯ ತಾಳವಾಡಿಗೆ ವಿಭಜಿಸುವರನ್ನೆಯ ಬದಿಯಲ್ಲಿ ಏಡಿ ಯೊಂದು ನಡೆದು ಹೋಗುತ್ತಿತ್ತು.

ನೋಡಿದ್ದು-ಕೇಳಿದ್ದು

ಕಟ್ಟು ಮಂಡಲದ ಹಾವೊಂದು ನೀಬೆಮರಕ್ಕೆ ಸುತ್ತಿಕೊಂಡಿತ್ತು ಇದನ್ನು ಶ್ರೀನಿವಾಸಪುರ ಕಾಲೋನಿ ರಾಜೇಶ್ ನೋಡಿದ್ದರು.

ಕಾಡುಜಾತಿಯ ಬಾಳೆಯು ಗ್ರಾಮದಲ್ಲಿ ಗೊನೆ ಬಿಟ್ಟು ಹೂ ಬಿಟ್ಟಿರುವುದನ್ನು ನೋಡಿದವು ಈ ಬಾಳಿಗೆ ಸೋಲಗರು "ಕಲ್ಲು ಬಾಳೆ" ಎಂದು ಕರೆಯುತ್ತಾರೆ.



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കാശ്ശുപൂവ്

നിലമ്പൂരിലെ കുട്ടികൾ തയ്യാറാക്കിയ പരിസ്ഥിതി മാസിക

നാട്ടുവിശേഷം

അപ്പൻക്കാപ്പ് അംഗൻവാടിയ്ക്കായി പുതിയ കെട്ടിടം നിർമ്മിയ്ക്കാൻ സെപ്റ്റംബർ മാസം തീരുമാനമായി. സെപ്റ്റംബർ മാസത്തിൽ 30 വീടുകളുടെ നിർമ്മാണത്തിന്റെ മൂന്നാം ഘട്ടം ആരംഭിച്ചിരിക്കുന്നു. നവംബർ മാസം അപ്പൻക്കാപ്പ് കോളനിയിലെ ദേശീയ ഗ്രാമീണ തൊഴിലുറപ്പ് പദ്ധതിയുമായി ബന്ധപ്പെട്ട് അംഗൻവാടിയിൽ വെച്ച് ഒരു യോഗം ചേർന്നു. അതിൽ പഞ്ചായത്ത് വാർഡ് മെമ്പർ ശ്രീ. ഗോപാലൻ, മുൻ മെമ്പർ അബ്ദു കുന്നുമ്മൽ, അംഗനവാടി അദ്ധ്യാപിക കുനിപ്പാല കോളനിയിലെ മെമ്പർ റംലത്ത്, എഡി എസ് അസ്ന തുടങ്ങിയവർ പങ്കെടുത്തു. ഡിസംബർ മാസം നിലമ്പൂർ പി. വി. ടി. ജി. പ്രൊജക്ട് ഓഫീസർ അപ്പൻക്കാപ്പ് കോളനി സന്ദർശിച്ചു.



ഇവർ ഇങ്ങനെ?

കുമ്പളപ്പാറ കാട്ടുനായ്ക്ക കോളനിയിലെ മുപ്പനാണ് ബൊമ്മൻ. ഇദ്ദേഹത്തിന് ഏകദേശം എൻപത് വയോളം പ്രായമുണ്ട്. ആറു മക്കളാണ്

മുപ്പന്. ഈ അടുത്തക്കാലം വരെ ഉറവിലെ തീരുമാനങ്ങളിൽ അവസാന വാക്ക് ബൊമ്മൻ മുപ്പനായിരുന്നു. തേൻ ശേഖരണത്തിലും മറ്റു വന വിഭവ ശേഖരണവും എല്ലാം ആരംഭിക്കുന്നത് ബൊമ്മന്റെ നേതൃത്വത്തിലാണ്. ഏകദേശം ഒരു വർഷത്തോളമായി ശാരീരിക അസ്വസ്ഥകൾ പിന്തുടരുന്നതിനാൽ കാട്ടിലേക്കുള്ള യാത്രമുടങ്ങിയിട്ട്. എങ്കിലും സ്വതസിദ്ധമായ നിഷ്കളങ്കത നിറഞ്ഞ ചിരിയോടെ കാട്ടിനകത്തായി ഏതാ അഞ്ച് കിലോമീറ്ററോളം ഉള്ളിലുള്ള ഈ കൊച്ചു സങ്കേതത്തിലേക്ക് ബൊമ്മൻ മുപ്പൻ നിങ്ങളെ ക്ഷണിക്കുന്നത് അത്രപ്പെട്ടെന്നൊന്നും മറക്കാനാവില്ല.

വിരുന്നുകാർ

ആന - ഒരുതവണ;
കൊമ്പൻ - 3 തവണ;
പിടി - 7 തവണ.

പക്ഷികൾ:

ഇരട്ടതലച്ചി, എല്ലാദിവസവും, ആനറാഞ്ചി മണ്ണാത്തിപുള്ളി, കാലികൊക്ക്, ചാരമു, ഓലേഞ്ഞാലി, തേൻകുരുവി, ചെമ്പോത്ത്, മരംകൊത്തി, നീർകാക്ക, അരിപ്രാവ്, പൂത്താകീരി, പൊന്മാൻ



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കാട്ടുവിശേഷം

പോത്ത്കല്ലി, വഴിക്കടവ്, മാഞ്ചീരി മേഖലയിൽ ചെറിയതോതിൽ നെല്ലിക്ക ശേഖരണം സെപ്റ്റംബർ മാസത്തിൽ ആരംഭിച്ചു. ഇതോടൊപ്പം നന്നാറി, കരളകം തുടങ്ങിയ മരുന്ന് ചെടികളുടെ ശേഖരവും ആരംഭിച്ചിട്ടുണ്ട്. നവംബർ മാസം മീൻപിടുത്തമായിരുന്നു അനേകം ആളുകളുടെ പ്രധാന തൊഴിൽ. കല്ലൻക്കാരി, മലഞ്ഞിൽ, മുഷി തുടങ്ങിയ മീനുകൾ ശേഖരിച്ചു. കുമ്പി ശേഖരണവും തോട്ടപയർ ശേഖരണവുമായിരുന്നു ഡിസംബർ മാസത്തിലെ പ്രധാന പണികൾ. വാണിയംപുഴ, അപ്പൻക്കാപ്പ, കുനിപ്പാല തുടങ്ങിയ ആദിവാസി ഗ്രാമങ്ങളിലെ ആളുകളാണ് തോട്ടപയർ ശേഖരിച്ച് വിൽക്കുന്നത്.

തന്ത്രങ്ങൾ

- 1) കുറ്റിപാണൽ തളിരില എടുത്ത് ചൂടാക്കിയ വെള്ളത്തിൽ കുളിച്ചാൽ ചൊറിച്ചിലിന് ശമനം കിട്ടുന്നതാണ്.
- 2) പാണലിന്റെ തളിരില ഭക്ഷിക്കുന്നത് പനിയുടെ ശമനത്തിന് നല്ലതാണ്.
- 3) ചൊറിയ്ക്ക് - കെട്ടയുടെ ഇലയും കല്ലയുല ചപ്പും ചതച്ച് കുളിക്കുന്നത് ചൊറിയുടെ ശമനത്തിന് നല്ലതാണ്.

അപ്പൻക്കാപ്പിൽ മൂന്ന് അയൽക്കൂട്ടങ്ങൾ ഉദയം, ഉഷ്, പുലരി എന്നീ പേരുകളിൽ രൂപീകരിച്ച് ആഴ്ച തോറും 10 രൂപ വീതം ശേഖരിക്കുന്നു.

നിലമ്പൂർ പി. വി. ടി. ജിയിൽ



ഉൾപ്പെടുത്തി കാട്ടുനായ്ക്ക കോളനികളിൽ അരിയും ഭക്ഷ്യധാന്യങ്ങളും വിതരണം നടത്തിവരുന്നു. പോത്ത്കല്ലി ഗവ. ആശുപത്രിയുടെ നേതൃത്വത്തിൽ കുട്ടികൾക്കും ഗർഭിണികൾക്കും മരുന്ന് വിതരണവും നടന്നു.

പേരിനുപിന്നിൽ

നെടുങ്കയം എന്ന പേര് ആ പ്രദേശത്തിന് ലഭിച്ചത് ആ പ്രദേശത്ത് കൂടി ഒഴുകുന്ന കരിമ്പുഴയിലുള്ള കയം ഉള്ളതുകൊണ്ടാണ് എന്നാണ് ഭാഷ്യം നിരവധി ആളുകൾ മരണപ്പെട്ടിട്ട് ഇവിടെ. കരിമ്പുഴയുടെ ഈ വശത്ത് എപ്പോഴും വെള്ളം കെട്ടിനിൽക്കുന്ന കയങ്ങളുണ്ട്.

പ്രകൃതിയിൽ

അപ്പൻക്കാപ്പ് പ്രകൃതി സെന്ററിലേയും അനുബന്ധ വീടുകളിൽ ഉള്ള ഈത്ത് ചെടികളിൽ ഉള്ള കളകൾ പിഴുതുകളഞ്ഞു വൃത്തിയാക്കി. ഈത്ത് വിളവെടുക്കുന്നവരുടെ സംഘത്തിന്റെ യോഗം വെച്ചിരുന്നുവെങ്കിലും അംഗങ്ങൾ സ്ഥലത്തില്ലാതിരുന്നതിനാൽ യോഗം നടത്തുവാൻ സാധിച്ചില്ല. സംഘത്തിലെ മൂന്നുപേർ മാത്രമേ പ്രകൃതിയിൽ വന്നിരുന്നുള്ളൂ. പി. വി. ടി. ജി പ്രൊജക്ട് ഓഫീസർ വിപിൻദാസ് സെന്റർ സന്ദർശിച്ചു.

TODA RELATIONSHIP WITH THE MUKURTI NATIONAL PARK

- Dr.Tarun Chhabra

What we now know as the Mukurti National Park (N.P.) and its environs has been a part of the Toda homeland and sacred landscape since countless centuries. Many Toda patrilineals had seasonal settlements in this area that were born of ecological necessity, because during the dry winter months, only certain areas situated close to the escarpments and plateau edges continue to receive some amounts of precipitation from the mist that rises along adjacent slopes. Todas call this moisture-laden mist *ott.mo(d)z*, literally, "mist from the cliffs". Due to this, fringe areas of the Nilgiri plateau have grasses that are still comparatively green throughout the dry months and thus provide suitable pasture for the Todas' buffalo herds at a time when regular pasturages offer poor fodder for animals. Even today, a few migratory hamlets remain in use, from Kawzhtee (Mudimund) in the NW to Kwehh(r)shy (Kolimund) in the southwest.

The SW part of the Upper Nilgiris is called *Pehrrnawdr*, while the Toda heartland on and around the Wenlock Downs known as *Ma(r)shawdr*, includes

areas around Upper Bhavani and extends into adjacent areas of Mukurti N.P. The areas surrounding Bangitappal constitute Amunawdr, the Toda afterworld. The route to the realm-of-the-dead is well-marked and there are over fifteen mythical landmarks that occur as natural physical sites on the ground. For example, the stairway that a departing spirit is said to ascend can be seen as natural rock steps going through the centre of an enormous dike. The final afterworld site is situated at the foot of a rocky hill located just SW of Karryn (the Folding Mountain) in Bangitappal. God Aihhn rules over the afterworld from Taihhmushkulln hill



(located above the Nadugani Trekking Shed in the Mukurti N.P.).

In ancient times, Toda gods lived alongside laypeople. When they went on, they took residence within some prominent hilltops. Not surprisingly then, of the thirty-four deity hills that Todas recognise as abodes of specific gods, over one dozen are located in and around the Mukurti N.P. For example, Kawtty (Pechakal Betta at 2545m), Kondhill(zh)ydaihh (at 2577m and located just behind the previous hill), P-heedhy (Deva Betta at 2553m), Kaa(r)shgol (Nilgiri Peak at 2476m from where Todas believe the southwesterly monsoon enters the Upper Nilgiris) and Taihhkhaa(r)sh (Wapshare Peak at 2275m). Indeed, most prominent hills in and around the Mukurti N.P. have a Toda name and related sanctity: many are mentioned in the prayers of certain temples whose owning patrilineals have their ruling deities located in specific hills. There is however just one hill where both Toda and common name coincide, and that happens to be Mukurti! Even today, Todas gather annually on Kawnttaihh peak (the well-known Devar Betta of the Kundahs at 2530m) along with a priest from a nearby hamlet, bringing along some sacred milk for ritual purposes. Their purpose is to pray for well-being of their ecosystem so that the sacred hills, waters, rocks and other natural sites located in this area provide them with benediction. This is done by chanting the sacred prayer-words of these natural sites and then prostrating themselves in those directions.

Both major river systems of this area, the Kawlykeen (Mukurti-Pykara) and the Kinatthill(zh)y (Avalanche-Emerald), have their mythical roots in honey, where their origins are accurately denoted to streams located on the slopes of Tehhdhykeihhn (Pichal-Bettu) and Peell(zh)n (near Paw(r)sh-wehhdn or Kolaribetta) hills respectively, both in the Mukurti N.P. These rivers had in the past, before damming, specific crossing points that differed for laymen and priests to be crossed only on certain days of the week and on premises of ritual purity.

Until it was proscribed some decades ago, the Todas held an annual ritual of grassland firing at the base of one of the deity hills of the Mukurti N.P. Here, the priest of the highest grade tee temple complexes would light a sacred fire—using firesticks of *Litsea wightiana*—to herald the onset of the dry winter season. Besides the ritualistic aspect, it also served to burn selected areas of grassland in a controlled manner, so that not only Toda buffalo herds, but all ungulates would benefit from the fresh shoots that sprouted, and also maintained the grasslands and swamps in a healthy condition.

Other natural features of this area—from plants, animals and birds to wetlands and sholas—are also named by the Todas.



For example, the wetland that Todas know as Kawrr-dehrr is located beyond Paall(zh) hill (Billi-Betta) in the Mukurti N.P. These people have understood the peculiar properties of local plants, from *Ceropegia pusilla* (*kafehll(zh)*) and *Satyrion nepalense* (*ezhtkwehhd*) whose tubers provide outstanding energizing properties, to the remarkable thatch grass called *avful* (*Eriochrysis rangacharii*; an endemic species) mandatory for use on temple-dairies. It was not only that tubers of the first two plant species are tonics for vigour and long life, but flowers of the former were used by Todas of yore to model their unique milk churning-stick, and the name of the second plant (*ezhtkwehhd*: "bullock horns") indicates that Todas were well aware of the presence of unusual twin-spurs that flowers of this orchid possess. There is a hill known as Nawtymehn (Chinna-Mukurti) that literally means, "Balsam hilltop" which shows that Todas were aware of where *Impatiens* species were concentrated.

Being traditionally pastoral, vegetarian people, hunting is unknown to the Todas. Some mammals like the tiger are revered but known to be ruthless in case a dairyman-priest commits transgressions of temple regulations. Others like the Nilgiri Tahr and Wild Dog find mention in some old songs. Todas have interesting stories that give us insights into the behavioural patterns of these animals. Expectedly, birds of this area are named and many have interesting associated stories. Fauna that are important to Todas often have separate generic names for males and females. For instance, the Sambar male is called *mōf*, whereas the female is known as *pyoof*. Among birds the Pied Bushchat male is *kaarpill(zh)* c and its female counterpart, *kupeihh(r)* shy. Other examples of local avian species with Toda names: Common Kestrel and Oriental Honey Buzzard – *taihhn-unny*; Grey Junglefowl – *kwehhddy*; Nilgiri Wood Pigeon – *twar-fehll(zh)*; Eurasian Eagle-Owl – *mawt-fehll(zh)*; Pacific Swallow – *parrkon*; Nilgiri Laughingthrush – *mi(d)* z-fehll(zh); Black-and-orange Flycatcher – *nodrky-fehll(zh)* and Nilgiri Pipit – *ma(r)* sh-pehll(zh).

Thus it would not be an exaggeration to state that the Mukurti N.P. and its environs have remained in a pristine state that houses unique biodiversity (leading to its inclusion as a core zone of the Nilgiri Biosphere Reserve in recent times), partly due to the management practices followed and sanctity accorded by Todas since time immemorial.

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Diary of Nilgiri Natural History Society

visit. <http://nilgirinaturalhistorysociety.wordpress.com/>



Rangaswamy pillar trek

The trek to Rangaswamy pillar on the 21st of October proved to be quite exhilarating. Twelve, members and non-members took part in the trek to the pillar through undulating slopes of alternating grasslands and evergreen sholas. Raju, a local guide shared his extensive knowledge on the native flora and fauna as he led the trail, which ended at the edge of a cliff with a view of the surrounding hills and plains and the monumental Rangaswamy pillar, which stands at a height of some 400 feet.

Mullur-Mandarai trail

This nature trail through the eastern slopes of the Nilgiris covered a total distance of 15km through varying landscapes. A group



of about ten participants headed by a local naturalist-Shivlinga started the walk from Mullur through some tea gardens, which were gradually replaced by evergreen forests past the Glenburn estates. This trail offers some of the best birding in the Nilgiris. Several species were spotted including the hill myna, blacked-naped monarch, chestnut-headed bee-eater and a crested serpent eagle. The trek ended at Mandarai, which offers some spectacular views of the surrounding hills and valleys.



Educational School Tours

NNHS organized an educational tour of the Nilgiris on the 19th, 20th and 21st of September for 9th standard children of Rishi Valley School (A.P). The three-day visit included a ride on the mountain railway & visits to a Tea factory, the Bee Museum, Longwood Shola, Sullivan's Memorial, Kodanad viewpoint, and Keystone Foundation. One day of the tour was spent on interacting with members of the indigenous community at their villages.

Elephant conservation education at Pillur

A workshop on elephant conservation was organized by the NNHS on the 20th of November at the Government School in Pillur. Around 30 students from classes 8 and 9 participated in this workshop. The contents of the program were presented using different mediums including film, slide show and worksheets. The kids were later quizzed on the different aspects of elephants and conservation. The results of this showed a high-level in awareness among the majority of the children. They were also given the opportunity to put their creative sides to use in a drawing competition. Winners were awarded prizes and all participants received certificates from NNHS.

Medicinal plants workshop

A workshop on medicinal plants was held at the Woodhouse farm, Ooty on the 1st of September. Fifteen students from the Blue Mountain School attended this workshop along with some members of the NNHS.

Given below is a link to the blog written by one of the children on the





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

The Bee Museum at Ooty is an initiative of Keystone Foundation. The museum, first of its kind with a focus on honey bees of India, tells of the ecology of the Nilgiri Biosphere Reserve and the livelihoods of the honey gatherers. The museum has a steady flow of visitors and activity modules for children.



Some events

Kota Pottery Workshop

A workshop on Kota pottery was held on the 14th of July. Cinthamani, a local Kota woman potter used a hand spun pottery wheel for the demonstration after which all the participants tried their hand at throwing (activity of shaping the clay on a potters wheel). The session ended with a discussion on the anthropological aspects of the Kota tribe. The workshop had a turnout of about 12 participants including school children.



Flora and Fauna – A first hand perspective

Ramneek Singh, a local naturalist gave a talk on the flora and fauna of the Nilgiris on the 25th of July. He took the audience through a series of photographs of rare and endemic orchids, flowering plants and also some of the fauna present in the Nilgiris. The changing landscape of the Nilgiris was the overriding topic of the day. A lot of emphasis was placed on the detrimental effects of invasive plant species like Acacia and Eucalyptus. The event had a good turnout of about fifty participants.



Snake awareness and rescue workshop

A snake awareness workshop was held at the Bee Museum on the 8th of September under the banner of the NNHS and Nilgiri Wildlife & Environment Association (NWEA). Twenty-five people including students from the Blue Mountain School took part in this educative program aimed at creating awareness about snakes and the erroneous perceptions associated with them. The session ended with a live snake rescue operation, Mr. Sadiq Ali an expert snake handler demonstrated a rescue using a rat snake but not before giving a short disclaimer: Do not try this at home!!



Kurumba painting workshop

A Kurumba painting workshop was held at the Bee Museum on the 26th of September under the guidance of Krishna, a Kurumba artist from Vellaricombai. Around 20 participants watched as Krishna demonstrated the intricate strokes used to

create these unique compositions using natural inks that are collected from forest plants. After the demonstration, participants were given a chance to try their hand at the Kurumba painting technique.

Pugur workshop

A four-day Toda embroidery workshop was organized at the Bee museum from the 17th to the 20th of October. This distinct form of embroidery done by the Toda community is called Pugur meaning flower. It is done using red and black wool on a plain white cloth. Around 15 participants took part in this workshop, which was headed, by Devakili and Rasendi of Bikkapathy Mund. The ladies also spoke about the cultural and social aspects of their tribe and spent time interacting with the participants giving them a brief insight into their lives.

Talk on the Birds of the Nilgiris

A talk on the birds of the Nilgiris by Dr.PJ Vasanthan took place on the 10th of November. The slide show presented by him was highly educative and showcased several endemic, endangered, migratory and resident bird species that inhabit the various slopes of the Nilgiri Biosphere Reserve (NBR). The key issue that came up continually during the talk was the steep decline in numbers of certain species due to habitat loss and global warming over the past several decades. Thirty-five participants including children from various schools around the Nilgiris took part in this workshop and joined in for the discussion that followed.

Talk on early warning communication systems in human-elephant conflict management

A presentation by the Mr. Ananda Kumar from Nature Conservation Fund (NCF), Valparai on early communication systems in human-elephant conflict management took place on the 4th of December. The research team at NCF has established a conflict response unit (CRU) with local people to track elephants in human inhabited areas until they move into surrounding protected areas. The research aims to involve local communities in the implementation of early warning measures for the management of human-elephant conflicts in fragmented landscapes. A lively discussion followed the presentation and several members of the NNHS stated the importance of adopting similar programs in tackling man-animal conflicts in the Nilgiris.



Photo: K. Rangaswamy

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

SUBMISSION OF ARTICLE

The NNHS newsletter articles are reviewed by the Chief Editors and a member of the editorial board. Articles are invited for the following section: i. Natural History News from India (400 words); ii. Natural History News from the World (400 words); iii. Research Initiatives in the NBR - student contributions (400 words); iv. Species focus (250 words).

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

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

Raorchestes ravii

Sandeep Das



Photo: Sandeep Das

COMMON NAME: RAVI'S BUSH FROG

DISTRIBUTION: India, Endemic to Nilgiris

HABIT AND HABITAT: *Raorchestes ravii* is one among the direct developing frogs in the genus *Raorchestes* under the family Rhacophoridae with horny spinular dorsum. Dorsum light brown, with a faint 'H' shaped brown marking. Seen mostly during the monsoon showers with their white inflated vocal sac when the males of the species actively call for the females. Females are occasionally spotted compared to the males. On close encounter call is usually repeats of single "trri" which sounds like "Phew Phew" from distance. Inhabits among moss on shola trees, among grasslands and in tea plantations above 1000 m elevation.

ETYMOLOGY: The species is named after late Ravi Chandran an enthusiastic nature lover from Wayanad, Kerala, who first collected the species.

STATUS: The species is one among the recently described (Anil et. al., 2011) nine bush frogs and is yet to be assessed by the IUCN. Even though the species is found fairly common from the type locality Naduvattom, Nilgiri district, Tamil Nadu, India, detailed study is required to understand more about its status throughout Nilgiris.

References: Zachariah, A., Dinesh, K.P., Kunhikrishnan, E., Das, S., Raju, D. V., Radhakrishnan, C., Jafer Palot, M. & Kalesh, S. 2011. Nine new species of frogs of the genus *Raorchestes* (Amphibia: Anura: Rhacophoridae) from southern Western Ghats, India. *Biosystematica*, 5(1): 25-48.



Raorchestes ravii (Calling male)