

NEWSLETTER of the
NILGIRI NATURAL
HISTORY SOCIETY

ISSN: 2395-065X

For private circulation only
ISSUE 11.1 - June 2022



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BROWN WOOD OWL

(*Strix leptogrammica*)

Photo Credit : Ajay Ludra

'This issue of the newsletter is supported by a grant from Rohini Nilekani Philanthropies to Keystone Foundation'

EDITORIAL

The rest of the world will remember 2022 as the year of recovery from CoViD. But the year has some hallmarks for the Nilgiris. Firstly, there has been an order of the Hon'ble High Court of Madras regarding removal of Invasive Alien Species, and this gives a fillip to the activities that so many in the fragile biosphere have been talking of. Secondly, there has been so much news regarding the safety of our (yes, of the Nilgiri biosphere) elephants, and a host of actions in response - transit corridors, legal action, anti-poaching, et al. And thirdly, the nation-wide ban on single use plastic, which comes into force from 01 July 22.

As life returns to normal, tourism picked up in a frenzy (someone even coined a term for it, calling it revenge-tourism), to the glee of those that eke their living from tourism, and to the chagrin of the environmentalists, because it has only resulted in efforts of cleaning-up over the last two years almost go to waste. But hopefully, with the nation-wide ban kicking in, tourism will be welcome with lesser littering.

The Society also picked up from the pre-CoViD years, and completed their long overdue annual registration process, this time online, and with only twenty members out of the nearly hundred on the rolls, because there is now a mandatory requirement to provide identity details. In due course, we should be able to migrate all of our current members also onto the portal, as we go into the renewal of registration for 2022.

During the AGM held on Nov, a lot of activities were charted out for 2022; some of these have been done, and are listed in the NNHS diary inside. Hopefully, we'll manage to catch up on the others as well. The next AGM is scheduled for 15 Aug 22, tentatively at Ooty, and we hope to see many more of our members than in recent years, where CoViD prevented mass gatherings.

Ooty celebrated the 124th Garden Competition in May, and although the turnout was lower than pre-CoViD years, it was heartening to see the fervour of participation from all around, as well as the footfall of viewers. As we ease out of the CoViD hangover (and hopefully, this should be the last mention of the awful thing in an editorial), as we fully revert to life as normal, we hope to undertake with more vigour some of the events we have in store for the balance of the year. Members are requested to watch the online calendar of events for activities, especially nature trails beyond Ooty, and around Kotagiri after the rains abate in early September.

We at the NNHS wish all our members and readers a good half-year - fruitful, productive, enjoyable, safe, and satisfying.

Ajay Ludra,
Secretary, NNHS

OWLS OF THE NILGIRIS

By Natasha Rajpurohit



Photo Credits: Vandana Kannan

Spotted owl

Athene brama

L : 21 cm

IUCN status: Least concern

Habitat: Grasslands, forest fringes and cultivations.

Distribution: Throughout India.

Description: White spotted greyish brown with pale facial discs and white ring around eyes. Mostly observed perched in the open during dusk and dawn.

Diet: Lizards, small birds, insects and mice.

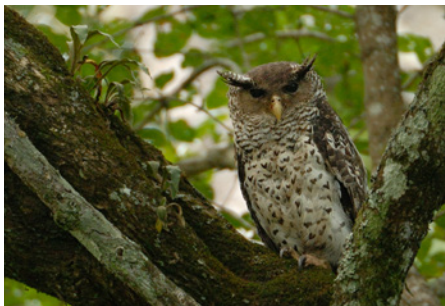


Photo Credits: N A Nazeer

Spot-bellied eagle-owl

Bubo nipalensis

L : 63cm

IUCN status: Least concern

Habitat: Dense evergreen, moist deciduous forest and dense riparian forest.

Distribution: It is found in the Himalayas in central Vietnam and southwest India and Sri Lanka.

Description: The facial disc is pale with dark eyes and whitish eyebrows. Ear-tufts and upperparts are dark brown with black bar-like markings. The tail is greyish with blackish-brown bars.

Diet: Larger birds, squirrels, fish and reptiles.



Photo Credits: Luc Viatour

Barn owl

Tyto alba

L : 36 cm

IUCN status: Least concern

Habitat: Vast range of habitats from rural to urban. Mostly found at low elevations in open habitats, such as grasslands, deserts, marshes and agricultural fields.

Distribution: Widespread all over world.

Description: Over all gold to buff plumage with black and white spots. And white disc face with contrast eyes.

Diet: Hunts on small birds, mice, lizards, hares and insects.



Photo Credits: Sumeet Moghe

Indian eagle-owl

Bubo bengalensis

L : 54cm

IUCN status: Least concern

Habitat: Rocky Hills with bushes, semi-deserts with rocks and bushes.

Distribution: Throughout India, Pakistan, Nepal, Assam and Burma.

Description: Its facial disc is fulvous-brown with black rim. Eyes are orange-yellow to orange-red, and the beak is grey to black. Upper parts are tawny brown and chin and throat are white. The upper breast has small, dark streaks and it fades towards the abdomen.

Diet: Rats, mice, birds, reptiles, frogs, crabs and large insects.



Photo Credits: Hisashi Jimmy

Brown wood owl

Strix leptogrammica

L : 47-53 cm

IUCN status: Least concern

Habitat: Inhabits lowland, temperate forest, montane broadleaf forests and adjacent edges.

Distribution: Himalayas, Northeast, Western and Eastern Ghats.

Description: A dark-bordered pale face with fine barring on wings and under parts, and sooty areas around the eyes.

Diet: Bats, birds, reptiles, rats, frogs, small birds, insects, and mice.

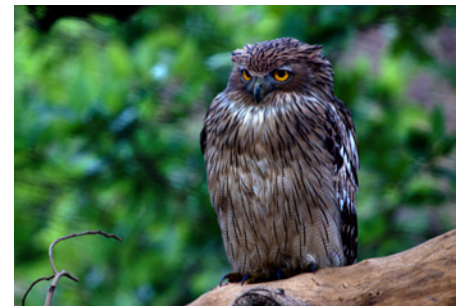


Photo Credits: Abhinavsharmamr

Brown fish owl

Ketupa zeylonensis

L : 60cm

IUCN status: Least concern

Habitat: Inhabits mainly the lowlands, from rocky and woodland to dense forest.

Distribution: Tropical and subtropical parts of the Indian Subcontinent.

Description: Grey to rufous brown plumage with pale throat and horizontal ear tufts.

Diet: Mostly fish, frogs and crabs, but will also feed on rodents, birds, reptiles and beetles.

Natasha Rajpurohit is a wildlife biologist and interested in the study of ecology of owl species.

A WALK IN THE ENTICING SHOLUR LANDSCAPE

By Ajay Ludra

Location: Sholur [11.491736°N, 76.632284°E]

In terms of geographical location, this is the valley west of Kalatty (Segur Ghat valley), and North-East of Glenmorgan. To reach, take the NH-181 out of Ooty, and about 4.5 km beyond from Thalai-kundha, at the sheep-breeding farm, break-off to the right. The village of Kokkal is about 8-km.

A Toda hamlet named Pather-mund (one Toda temple, one cattle-pen, and one hut), lies on this hill-climb route, and their main hamlet Tarnad-mund lies over the ridge to the west, near Glenmorgan. This clan of Todas travels to the temporary hamlet about twice a year, for ceremonies, and to graze their buffalos.

The Route

The walk was proposed by Prashant Aiyappa, of Dunsandle Tea Estate. A very small group from NNHS got together - we were five of us in all. After a welcome hot cup of tea at the Dunsandle Tea Factory, thanks to Prashant, we set course by road to the last motorable point.

The choice of using the Scorpio was a good one, the cars would probably not have made it to the last point, leaving us to park short by almost a km.

The walk by itself was a length of about 2.8 km, and an elevation rise of about 260 m.

The route passes through some tea-gone-waste in the lower elevations, some light forest zones, and grassy meadows. Evidence of farming in some fruitful days was evident from terraces

that haven't been tilled for over a year or more. Small shola-clumps dot the crevasses and combs. On the bright sunny day, the interspersed passing in-and-out of the forest zones was a welcome respite. *Cestrum* in flower - red, yellow, orange - gave a lovely color to the outer fringes of the sholas.

The Locale

The top of the walk led us to a rounded grassy meadow, whose one edge has an escarpment that has a sheer drop of nearly 250 m. The views from here were awe-inspiring, not just breathtaking. Even though the visibility was not very good, we could see clearly into Bokkapuram and Masinagudi. Supposedly, when the visibility is good, one can see all the way up to BR Hills.

Observations, sightings, encounters

At the top, near the water-body gone nearly dry, we came across the insectivorous sun-dew [*Drosera*] - a first for a majority of the group, and *Gentian* [the worry-flower as known to the Todas - supposedly, if you are anxious/worried, and pluck a flower in your finger and thumb, it closes].

Saro was the first to notice the pug-marks of a big-cat in the wet clay of a nearly dry stream. By size-assessment, it was that of a tiger, and one could establish the story of the tiger engaging an ungulate, whose hoof-marks were equally fresh in the wet clay.

Rhododendron was in full bloom all around - the stark red and green contrasts very well. Entire clumps of wattle was a sore-eye, and where sholas should have been.



Prashant's keen eye got our attention to a crested-serpant-eagle perched on a Cestrum, and flying away from us to a barren tree branch.

As we commenced the walk down, we noticed a black eagle soaring below the clouds; soon another joined in, and then a third!

The wind-speed picked up as the sun went past zenith, and a kestrel started to hover off the edge; we noticed it dip for food twice, but probably missed catching it.

On the walk down, we came across the Toda patriarch in a quasi-ceremonial activity, probably mentoring a younger priest-to-be. We were obviously outsiders, and notioned to steer away from where they were doing their business. As Prasanth tried to establish communication, the patriarch decided to acquiesce for a set of photos; from the cameras, mind you, not from the phones, but the Apple was OK. Oh, and did he pose, shawl and all. "Rajesh Kuttan", a third Toda at the site, was in a talkative mood, and we had a reasonable chat.

The sun angle became just right past noon, and suddenly, the hillside was

flush with funnel-webs of the funnel-web spider [family Dipluridae; scientific name Atracidae].

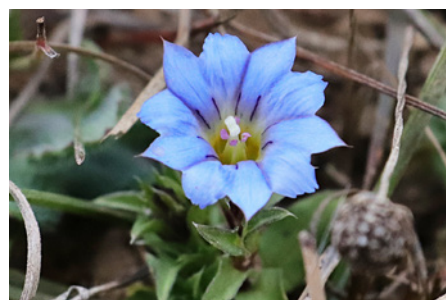
Despite the same route while returning, there were more plants that we saw on the way down, than on the way up - that is what strenuous climbs do to you.

There were a fair number of butterflies, including orange-tips [*Anthocharis cardamines*], cabbage-white [*Pieris rapae*], common grass-yellow [*Eurema hecabe*], a Red Admiral [*Vanessa atlanta*], and a Blue-bottle butterfly [*Graphium sarpedon*]. There were the yellow Agama, and the blue-banded bee [*Amegilla cingulata*] as well.

Just above the tea-gone-waste elevation, was a range of Melastoma, their rich purple petals in grandeur.

All in all, even though it was a walk of about 5-and-a-half km, and it took a good five hours to do, the day was well-spent - educative, entertaining, and satisfying.

We hope to do this walk again, probably with a larger, equally keen group.



All photo-credits: Ajay Ludra. Canon-200D, 18-55/75-300mm lenses.

Ajay Ludra is an ardent weekend walker, and an amateur photographer. Nature walks are a forte, and finding new paths is a passion. Where there isn't one, it will be made! He carries his Canon 200D, and is picky with his photographs. Ever since learning to stitch mosaics of panoramas, wide-angle panoramas without a wide-angle lens are a necessity in every walk.



THE HOOTING SIGN OF DEATH A NILGIRI FOLKLORE

By Vandana Kannan



Indian Scops Owl

Photo: Anagha devi

As the setting sun leaves the sky painted in dark hues of orange and blue, giving way for a waning crescent moon to take over, a large nocturnal bird sits perched on the branches of a Jamun* [Jamblan, Malabar Plum, *Syzygium cumini*] tree in the shola forests of Nilgiris. The mysterious bird with a face like that of a half-cut apple that swoops in with outstretched talons onto its prey with absolute silence. The Owl. Associated with the emotions of fear, reverence, curiosity, wonder, despal, wisdom as well as the lack of it, and more, the Owl has been subject to such an astonishing range of beliefs, myths, and superstitions across the world, that it seems to be more popular in lore than in research.

Unlike most other birds, owls have forward-facing eyes that aid in binocular vision. Owing to its remarkable eyesight, some people in Europe and Southern Asia consumed owl eggs to improve their eyesight. Moreover, due



Brown Fish Owl

to its large, wise-looking eyes, the Owl is the symbol of Athena (the Greek goddess of wisdom) and Lakshmi (the Hindu goddess of wealth and prosperity). Strangely however, the bird is also frequently associated with foolishness (the word “ullu” in Hindi, meaning “owl”, is used to refer to a foolish person). But perhaps the most common and widespread superstition surrounding owls is that of its association with imminent death. Like ancient Romans, the Apache people, and members of the Garo Tribe of Meghalaya, many people residing in Kotagiri town of the Nilgiris district believe that hearing the call of an owl at night was a sign of approaching death. Some villagers of Kotagiri further explained that someone they knew died within two days every time they heard an owl’s hoot. However, they perceive an early morning call as a good omen. Apart from these superstitions, owls are thought to be messengers of witches in some cultures, the guardian of fires, and tenders of seed germination by Hopis Indians, a protector of Greek warriors, and were used to predict the weather in England. Most surprising of all, the Owl is referred to only as “the bird that makes you afraid” in Cameroon because it is thought to be a strong source of evil.

What is the root of such superstitions towards this bird? Why are they so contradictory? Why do we know so little about owls? Do these superstitions help in protection of the animal out of fear and respect, or do they impede conservation by causing an increase in trade and killings? (for instance, business communities in West Bengal are known to sacrifice owls to gain wealth during Kali Puja). Comparable myths towards other nocturnal animals such as bats, pangolins and more, leads me to wonder whether it is their rarity, incognizance, and an association with the unknown darkness that is solely responsible for the birth and continued existence of these myths. Perhaps with a greater motivation to study owls and bring their true behaviour and ecological significance to light, we would all know how majestic and beautiful these life forms actually are.

Vandana Kanan is a student pursuing her Masters in Wildlife conservation.

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Photo: Bernard Dupont

Brown Fish Owl

BATS UNSUNG HEROES

By Nithin Divakar

Wayanad Wildlife Sanctuary (WWS) of Kerala which is connected to the landscapes of Bandipur-Nagarhole of Karnataka and Mudumalai of Tamil Nadu is well known for its high density of tigers and elephants. Conducting field work in this landscape was challenging, and at the same time a lot of fun. As a Post-graduate student, I was short of money and field resources. It was difficult for me to find funding for transportation and field assistance. After long discussions with the officials of WWS, they suggested that I join the field watchers of the forest department when they go for vista clearance (a process of clearing invasive plants along the trek path) and complete my field work along with their work. While they cleared the invasive species as a part of the management activities, I concentrated on searching for bats in tree holes, barks, water canals, crevices, underbridges, and old buildings. After the long days' work of 'vista clearance', I would install mist-nets for capturing some of them as part of my study. Yes, in the world of tigers and elephants, I searched for these lesser known, misunderstood beautiful animals!



Vesper bats © Nithin Divakar



Wayanad Wildlife Sanctuary Habitat shot © Vishnu O





Indian Flying Fox © Abhijith Perambra



Salim Ali's Fruit Bat © Rajesh Puttaswamaiah



Lesser Flase Vampire Bat © Nithin Divakar

Salim Ali's Fruit Bat (*Latidens salimalii*)

Bats are not only beautiful, they are unique in many ways when compared to other mammals around the world. More than 6500 species of mammals have been described and categorized in 27 orders till today, out of which bats are the only mammal group which is capable of true flight. With a total of 1446 species around the world, bats belong to the Order Chiroptera, further divided into two suborders - the Megachiroptera, which comprises the Old-World fruit bats (eg: Indian Flying Fox, the big ones that roost in busy cities and townships) and the Microchiroptera, which includes the small-to-medium sized insectivorous bats (eg: Rufous Horseshoe Bat, the small evening bats which sometimes accidentally enters our TV room, get confused about how to get out and flies frantically in circles). In India, there are 131 species of bats and 48 species in Kerala as per recent studies.

Being the second largest mammalian order after Rodentia, representing 40% of the mammalian diversity of the tropical ecosystems and occupying almost all the niches in the environment, bats interact with many plant species and exhibit diverse ecosystem functions including pollination, seed-dispersal services and insect pest-suppression (biological control), and as predators

for many small vertebrates, thereby playing a major role in maintaining the forest dynamics. Bats are considered to be pollinators of more than 500 species of flowering plants with different socio-economic values. It is also documented that 34% of the economically important plants are dispersed by flying foxes in Africa. A study from Texas, USA, estimated that insectivorous bats (*Tadarida brasiliensis*) benefit the farmers by reducing the cost of artificial insecticides and increasing the cotton production to US\$ 741,000 a year. They are also considered to be perfect biological indicators of ecological changes because of their mobility, diversity, abundance, communal behavior, and their sensitive nature towards environmental changes.

Regardless of all these facts, bats tend to be poorly studied, and a highly misunderstood group of animals. When I started my research on bats in WWS, there was no baseline data on the diversity of bats. There were people who were confused between bats and birds irrespective of age, gender, or working class. There were numerous myths and misconceptions about bats. As a result of the study that I carried out in WWS, eleven species of bats and their preference towards roosting sites through multiple survey methods were recorded and listed. But during

the study period we had observed many direct threats faced by bats in this landscape which even includes bushmeat consumption for medicinal benefits. Also from the interactions I had with the people around, we realized the lack of knowledge about bats, and their ecological importance among the indigenous communities and the protected area managers in the area. Outbreak of diseases starting from Nipah in 2018, to the recent Covid-19 pandemic and related unscientific information passed through social-media only helped inculcate a huge negative attitude amongst people towards bats. Also, most of the bat species found in India come under Least Concern (IUCN), or Schedule IV, as per Indian Wildlife (Protection) Act, 1972. In short, there are no strict punishments for anyone who commits crimes against bats. Since India is a country where bats are highly connect-

ed to myths and misconceptions, there is an urgent need for conservation education among different stakeholders, including policymakers. Apart from in-person workshops to build knowledge among the population at large, and youth in particular, we have recently started a social media initiative called Bat Conservation Kerala. This started as a part of my current project on the conservation of Salim Ali Fruit Bat in Kerala, which received the Conservation Leadership Programme team awards in 2021. Through this initiative my team is trying to build awareness among the general public on bats and hoping for a day where these species are highlighted for their good deeds!

Nithin Divakar is an ecologist currently working with the Kerala Forest Research Institute. This is an excerpt from his study on the roosting preference of bats in Wayanad.



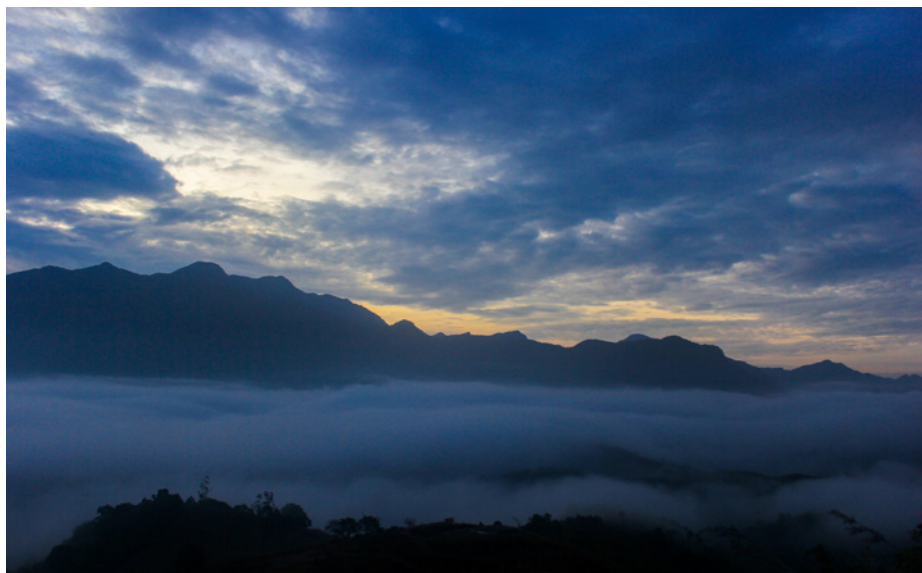
Horseshoe bats © Nithin Divakar



Fulvous Fruit Bat © Nithin Divakar



Herd from Wayanad Wildlife Sanctuary ©



Chembra hills © Nithin Divakar



Lesser Flame Vampire Bat © Nithin Divakar

NATURE WATCH: NILGIRIS

By Ajay Iudra



Elephants

In April, the Forest College and Research Institute at Mettupalayam forecast an increase in the numbers of elephants in Tamil Nadu by 800, as also that 130 would die due to heat exhaustion, amongst other natural deaths. The Department of Wildlife Biology in the Government Arts College, Udhagamandalam, has also cited lack of water in forest areas as a primary reason for deaths of calves since 1991. Post-mortem examination reports of 1,544 wild elephants that died over 28 years (till 2019) were studied, of which 940 have happened in the Nilgiris Elephant Reserve Forest Area encompassing Gudalur, MTR, Coimbatore, STR, and Dharmapuri and Hosur. “Rejuvenation of traditional waterfalls and creation of additional water troughs and water-holes inside forest areas is the need of the hour”.

The Pethikuttai reserve forest has turned into a mortality hot-spot with seven elephants dying of liver disorder. The Regional Forensic Science Laboratory in Coimbatore, which tested samples from two of the elephants, found traces of organo-phosphorus compound (OPC), indicating pesticide poisoning. A senior member of the panel said, “At least 30 herds use the Pethikuttai habitat. Many deaths there were between summer and monsoon. We need to study migration patterns to understand where the animals picked up chronic OPC content.”

In another study in end-April, it has been reported that only 13 out of 131 deaths of elephants in the 15-month

period from Jan 2021 to March 2022 were from human interaction. Human-induced deaths include electrocution, train and road accident and retaliatory kill; on the other hand, natural causes include multiple injuries, intra-species fight, predator attacks, age, hepatitis, worm infection, cirrhosis of liver and malnutrition. Deaths due to anthrax, foot-and-mouth disease, herpes and pulmonary tuberculosis are also considered natural, according to the report. The Forest Department has said that they would deliberate on the findings of this preliminary report and schedule its field visits and other activities accordingly.

Towards the end of April 2022, the Parliamentary standing committee examined the Wildlife (Protection) Amendment Bill, 2021, and is broadly in agreement with the majority of its Clauses, but has recommended certain changes that could prevent trade in elephants, strengthen management of protected areas and make state/national wildlife boards more representative by giving adequate space to domain experts from outside the government.

One specific amendment that has caused considerable anguish in the wildlife conservation community is the one relating to the creation of a Standing Committee of the State Board for Wildlife (SBWL). Though the ministry said that the provision was to make the functioning of the SBWL more purposive, the worry is that such a panel will be packed with official members, exercise all powers of the SBWL and take decisions independent of the board

itself and end up being a rubber stamp for faster clearances of projects. One can only wait and watch the outcome of this Bill’s implementation.

In a satirically hilarious incident, a herd of elephants was on the move in Coonoor, Tamil Nadu, when a group of tourists tried to click selfies with them on the highway. A video that went viral in early April shows a group of people trying to click selfies with the herd in the background. One of these men yelled at the elephants, which provoked them. The elephants charged towards the tourists to scare them away. The bystanders panicked and moved away from the place, giving the elephants time to find a clear path to descend into the forest. It is time we understood that wildlife also has a place of dignity on Earth, and in as much as we are today sensitive to some issues that we consider hurtful, the very presence of humans in the vicinity of their young ones agitates the animals. We need to pass on and inculcate the need to keep our distance.

Project Elephant, launched in 1992 by the Union government, is an important financial source for States to protect elephants in their natural habitats and corridors. Man-elephant conflict is on the rise, yet the State has not received any funds for the last two years under the Centrally-sponsored ‘Project Elephant’ scheme. An analysis shows that Tamil Nadu has consistently been receiving less funding compared to its neighbours; the centre claims that the utilisation of funds is better, and that Karnataka and Kerala have higher densities of elephants.

Palmking butterfly spotted

The Hindu of 11 Apr 2022 carried a report of the sighting of the rare butterfly Palmking — for the first time in Tamil Nadu. This species was supposedly first recorded in South India by British scientist H.S.Ferguson in 1891. More than a Century later, it was rediscovered in 2007 in Thenmala by C. Susanth, and a year later, lepidopterists George Mathews and Unnikrishnan P. studied the life-stages of the Palmking and photographically documented

it for the first time. Subsequently several sightings were recorded in the forests of Arippa, Shendurney, Periyar Tiger Reserve in the south of Western Ghats.

Rare root parasite plant blooms in Upper Nilgiris.

Known as Bhoomi Budalam and Veru Chedi in Tamil, the plant bearing the scientific name *Balanophora fungosa* is often mistaken for a colourful cluster of red mushrooms. Tribals are known for collecting the plant for natural remedies. It lacks green pigments. The underground haustoria attach to the roots of host plants for nourishment. The inflorescences emerge out of the soil only at the time of blooming and they last for a very short period," says Botanist S Rajan.

Saving the Vulture

Tamil Nadu has taken a huge step towards protecting the critically endangered vultures. The office of the Director of Drugs Control has registered over 100 cases against suppliers, distributors, manufacturers and retailers of diclofenac, a non-steroidal anti-inflammatory drug for cattle treatment. The drug has been banned across India because it has proved to be toxic to vultures. Vulture populations have plummeted nationwide. Four of India's nine species have been listed as "critically endangered" by the International Union for Conservation of Nature (IUCN). "There are safe alternative drugs available, so there is no need to allow this illegal practice of continued diclofenac use. Meloxicam and tolfenamic acid are cheap and safe options and out of patent, so drug

manufacturers and suppliers should focus on producing them and help the vulture populations recover," says Chris Bowden, who is also the co-chair of the IUCN vulture specialist group.

Collapse in Insect Numbers

The world may be facing a devastating "hidden" collapse in insect species due to the twin threats of climate change and habitat loss. UCL's Centre for Biodiversity & Environment Research has carried out one of the largest-ever assessments of insect declines around the world – assessing three-quarters of a million samples from around 6,000 sites.

The new study, published in "Nature" magazine, finds that climate-stressed farmland possesses only half the number of insects, on average, and 25 per cent fewer insect species than areas of natural habitat. Insect declines are greatest in high-intensity farmland areas within tropical countries – where the combined effects of climate change and habitat loss are experienced most profoundly.

The majority of the world's estimated 5.5 million species are thought to live in these regions – meaning the planet's greatest abundances of insect life may be suffering collapses without us even realising.

Lowering the intensity of farming by using fewer chemicals, having a greater diversity of crops and preserving some natural habitat can mitigate the negative effects of habitat loss and climate change on insects.

Considering the choices we make as consumers – such as buying shade-

grown coffee or cocoa – could also help protect insects and other creatures in the world's most climate-vulnerable regions.

Tiger conservation, and the Tx2 project.

From 100,000 wild tigers at the beginning of the 20th century, the numbers have dwindled to 3,200. In January this year, Sathyamangalam Tiger Reserve (Tamil Nadu) was awarded the TX2 Award after its tiger numbers doubled since 2010, and now has about 80 tigers. The Nilgiri biosphere landscape that this reserve is part of, is currently home to the largest tiger population in the world. It has been a long road for tiger conservation in India which began with the launch of Project Tiger in 1973. Over the years, WWF and TRAFFIC have helped strengthen measures to increase protection efficacy and curb illegal wildlife crime across India's various tiger conservation landscapes. "Failing to meaningfully address concerns around connectivity and conflict will, on the contrary, result in tigers being restricted to shrinking, fragmented habitats in many areas."

A Case for Wetland Conservation.

We are losing wetlands at an alarming rate, but these primordial habitats provide immense ecological value and ecosystem services despite covering only 6% of the earth's surface. They are a significant source of freshwater, sequester greenhouse gases, and support biodiversity. In safeguarding critical wetlands, we save the associated wildlife dependent on these ecosystems.

Shola-grasslands crucial for the endemic Nilgiri Pipit.

Surveys across 170 locations and statistical models revealed that elevation matters greatly for both pipit presence and numbers. The team also found that fewer pipits are likely to be present if grassland patches contained invasive plants such as Eucalyptus. Results imply that several management actions could be crucial for the persistence of the bird in its habitat: from restoring highly fragmented and disturbed grasslands to tackling the problem of invasives such as Eucalyptus that are taking over the remaining grassland patches.



World Wildlife Day and Earth Day 2022
The tiger will see you a hundred times
before you see it once.

- Anonymous

TRIBUTE TO A TRULY 'NOBLE' NILGIRIOLOGIST

By Rev. P.K. Mulley



Dr. William Allistar Noble, born in 1932, is no more with us. He passed away peacefully in his sleep on December 31st, 2021. Born to Christian missionary parents in Nagercoil in

Tamil Nadu, he developed a deep love for the Nilgiris in all its moorings. His father was a missionary doctor in Nagercoil from 1921 to 1960. Bill Noble (also affectionately known as Sandy) attended Breeks Memorial School at Ooty, and passed his Senior Cambridge examination from there. He was still at Ooty at the dawn of Indian Independence and left for the United States in 1950 for higher education. He eventually obtained his PhD in geography from Louisiana State University in 1968. His doctoral dissertation was a fresh appraisal in postmodern studies of the symbiotic ties that existed between the Todas, Badagas, Kotas, Kurumbas and Irulas - the autochthonous and endemic tribes of the Nilgiris. His wife, Louisa Booth, completed her MA dissertation in 1969 on a pivotal feature in Badaga anthropology which she called their 'sub-ethnic system'; but Dr Noble's actual tryst with Nilgiris studies and scholarship began with the appearance of an excellence presented through a brief account of Badaga funeral customs in a European journal of ethnography and linguistics from Salzburg in 1965.

Dr. Noble's devotion to the cause of grasslands and rain sides since 1967 gained store by him during his sojourns in the nilgiris may yet to see the light of the day. So also his projected quotes magnus opum on the history of the livelihoods of 'the changed todas.' In a personal communication (1993) he also argued ardently about his penchant for

Toda cosmography and what he termed as their 'Dreamtime complex' (the lore of their lost landscapes).

Dr Noble had a passion for details in all his articulations like investigating the archaeological similarity of Nilgiris hilltops stone circles with those found in Egypt, or how a piece of metal found in one irula memorial site can be related to the cattle owned by the deceased persons of a particular lineage (1989). I can keep on narrating many such instances of his eye for unique traces of symbols or motifs in all his expeditions. It is a rock art site or their erstwhile Badaga

pasturage site even as far as Attapadi in Kerala and the yet vibrant sacred grove complexes of badagas or the toda funeral and ritual assemblages. Dr Noble was an anthropologist, archaeologist, biogeographer, ethnographer, and a nature historian all rolled into one.

Once we were visiting the Shevaroy Hills (Servarayan hills) in Salem district investigating for a publication that appeared in 2000 with the input of Dr William Jebadhas, a childhood friend of Dr. Noble and an ethnobotanist. During this trip, I mentioned to Sandy about the unique inner walls in the thatch and abodes of the native tribal Malayali folk. Sandy, with some alacrity, decided to stay there for three more days to study this type of construction. He was so excited about this opportunity, and regretted that he had no idea about this type of construction when

he was making this contribution to the prestigious Cambridge volume of the Encyclopaedia of Vernacular Architecture of the World (1995). His specialist contribution to the Toda vernacular architectural studies is found in Hawking's (ed.1997)



The most moving moment in my comradeship with Sandy occurred on the receipt of a request from him in 2014. Though living in a retirement home with 37 others, still with the glow of aspiration in his soul for his yet undimmed Toda cultures, he wanted me to answer some of his queries concerning certain sacred Toda locations we had investigated earlier. These sites were long abandoned by a Toda patriline. I felt so happy to visit these sites again and provide him with satisfactory clarifications with GPS readings. Photograph chosen for this obituary note is symbolic. The Mukurthi peak (threshold of the Toda afterworld) and the Devabetta peak (threshold of the Badaga afterworld) seen reflected in the sheet of water perhaps is the highest elevation in the Nilgiri massif. The Badagas (in their remarkable funeral litany) pray for these headwaters always to brim to their fullness as their departed souls find the passage to the afterworld. Interestingly, once upon a time, the Badagas were advertised as the custodians of Toda memorial relics at the Toda 'repeat funeral' rites (CF Hawking & Walker 1983: 323). That apart, as Dr. Noble's daughters Jennifer and Catherine desired to scatter their father's ashes on the Mukurthi peak in 2023, may this noble soul rest in peace.



Photo credit: Mukurthi peak reflection: Devaraj Rangan, Pororehatti. Toda: a dream time toda

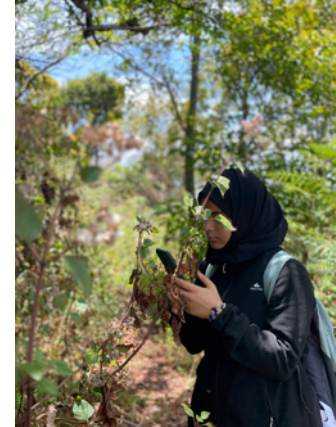
THE BUZZ NNHS DIARY



We approached 2022 warily. With the world settling down after Covid, here is the journey of NNHS through the first half of this year.

The year kick-started with the snakes of Nilgiris. Gnaneswar, Project Coordinator, Madras Crocodile Bank gave a talk on the snakes of the Nilgiris and how easy it is to misidentify snakes. He elaborated on the problems of snake bites and it is a problem that needs a holistic approach to solve. A herping trail was organised in the Longwood shola Reserve forest. Day geckos, pink thighed frogs and bush frogs were the highlights of the trail. A group of NNHS members also trekked in the sacred groves of the Banagudi Shola to reach the Kurumba village of Banagudi. The group was also intrigued by the various plants along the trail – be it shola tree species or other flowering shrubs and some time was spent educating ourselves in Botany.

To celebrate Wetlands day in February and create awareness, Gokul Halan, Additional Coordinator – Water and Sanitation, Keystone Foundation along with 10 young students from Kair-combai Govt School were taken to the Indcoserve Wetland Park. An orientation on wetlands and why they are important to both the environment and communities was given to the students at the interpretation centre after which



they were taken on a guided trail of plants and birds around the wetland. The Kaircombai Govt School campus shares space with a wetland and the students pledged to protect the area and to create awareness among their peers. In February NNHS also ran a trail for the members to the Sholur landscape and to the Pather Mund, a Toda hamlet.

We went on to conduct an invasive mapping training in collaboration with Keystone Foundation, and Tamil Nadu Forest Department in the Longwood Shola reserve forest. The research uses a citizen science approach to map the invasive species and is a collaborative research between ATREE and Keystone Foundation.

To mark the occasion on Earth day, in April for two days we conducted an Invasive alien plant mapping in collaboration with ATREE, Keystone Foundation and Clean Coonoor. Citizens, Forest staff, and college students, and scientists were all a part of this event. On the first day we trekked through the Kotagiri slopes towards the Rangaswamy pillar and on the second day we mapped along the roads of Coonoor towards the dolphin nose view point.

In June we conducted a talk session on P. Jeganathan's work on Searching for graves and other interesting remnants of the past in Ooty and its surroundings. He briefed about the details of some early ornithologists of the Nilgiris and how Wikipedia, Biodiversity heritage library and archive.org helped him



in finding more about them. Preserving historically important cemeteries and contributing to public domains were an important part of the discussions.

- Habeeba Fathima

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: contact@nnhs.in

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

Nilgiri Natural History Society

Searching for graves and interesting remnants of past in Ooty

Listen to P Jeganathan from Nature Conservation Foundation, Mysore, talk about his exploration of the historically & ornithologically significant, unexplored sites in and around Ooty.

Date: 05-06-2022 (Sunday)
Time: 10am
Venue: Keystone foundation - Mandarae
For registration contact: 9486232724 / contact@nnhs.in



Photo credit: Vandana kanan

Coonoor Bush Frog (*Raorchestes coonoorensis*)

The *Raorchestes coonoorensis* or the Coonoor bush frog is a species of frogs endemic to the Western Ghats, India. It is reported from Sim's Park in Coonoor (hence its name), with an additional observation from Kotagiri both locations are in the state of Tamil Nadu. Its altitude range is 1,780–1,850 m.

Given that the species is locally abundant and that it occurs in disturbed environments, this seems to suggest that it is tolerant to a degree of habitat disturbance. It might also occur more widely than currently known. Thus, despite its limited known range, it is not considered threatened.