

நமது வனம் NAMATHU VANAM

(Bilingual Quarterly e-magazine of TASPEF)

Aug 2024 -Oct 2024

(For free circulation only)



GRIZZLED GIANT SQUIRREL

ஊருக்குள் புகுந்த கொம்பன் யானை

TERN-ING IN PULICAT LAKE

SWIETENIA MAHAGONI

DAY AND NIGHT RAID FOR SANDALWOOD

FUNGUS THAT BREAKS DOWN OCEAN PLASTIC

Image Credit: Sivaguru Noopuran

SOME TREE DISEASES



Leaf Spot



Brown Spot



*Rust Disease caused by *Sphaceloma terminaliae* on *Terminalia arjuna**



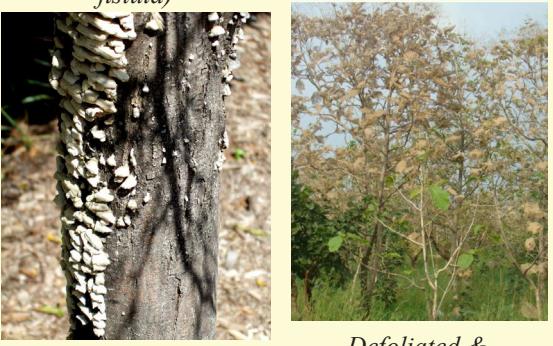
*Rust Disease caused by *olivea tectonae* on *Tectona grandis**



*Stem canker in Golden shower tree (*Cassia fistula*)*



Citrus canker



Canker on Indian Sandalwood



Powdery Mildew

Canker

Defoliated & skeletonizer in Teakwook

**TAMILNADU ASSOCIATION OF SENIOR PROFESSIONALS
OF ENVIRONMENT AND FORESTS
(TASPEF)**



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Birthday Wishes

The Editorial team wishes
all the members who are
celebrating their birthday in the
months of August, September
and October 2024.

“A VERY HAPPY BIRTHDAY”

Dear TASPEF members,

Greetings from the Editorial team.

With the focus on attaining 33 percent of India's land area under forests and the difficulty in getting areas for declaring as forests, tree cultivation on lands outside forests is picking up momentum in our country. Forestry extension wings are working big time in this regard. Farmers are attracted to tree growing due to various reasons, primary reasons being tree growing is low in labour inputs, minimal annual operating costs, reduced risk and uncertainty. Unlike traditional agriculture crops which faces huge labour and input costs and declining returns.

Additional incentives for tree growing are, due to expanding markets for poles and other wood products like pulp wood etc and the Government incentives for tree growing. However, tree growing farmers face a few disadvantages. Like, unclear ownership of trees grown, restrictions on felling and selling the trees when in need and problems in marketing. The interest shown by the Forests departments in promoting tree growing, is not shown in facilitating farmers in reaping the benefits. Handholding during the long gestation period before maturity of trees for harvesting is also lacking. Result is frustration, disbelief and loss of faith with the foresters.

This lacuna needs to be addressed urgently by the foresters.

Of late, the older plantations raised by the farmers are facing pest problems and they are at a loss on how to address them. Though multivarious forest research institutes are having abundant packages on silviculture practices, they need greater dissemination among tree cultivators on a regular basis. In-person visits to the farmers fields by qualified forestry personnel, seasonal radio / TV broadcasts on silvicultural practices and impending pest attacks and other disease which affect the trees, market information, a strong data base of tree cultivating farmers easily available on line, for traders etc., is the need of the hour.

Development of Pest and Disease Management practices and their timely dissemination and utilisation is an important priority. Timely utilisation of pest control measures at initial phases can reduce major outbreaks and huge costs involved in containing them and the loss to farmers, that occurs with such outbreaks.

Prevention is the key and for this, information on type of pests and diseases and measures needed to prevent or reduce the pest or disease, incidence is required. By building a strong data base on the periodicity of incidence, intensity of attack, nature of damage, biology of key pests or disease and the influence of biotic and abiotic factors on pest build up or severity of disease attacks, will help in devising suitable management practices. Standardised package of practices for some of the key pests and disease, by integrating cultural, mechanical, biological and chemical control methods needs to be developed, if not already in place, by the Forest research Institutes and widely circulated.

Few decades back, the University of California at Berkeley had formulated the concept of Integrated Pest Management (IPM). The indiscriminate use of Chemical pesticides in Agriculture and Horticulture plantations, had adverse impact on humans, wildlife, and the environment. Hence, the Food and Agriculture Organisation (FAO) has defined the IPM concept as “the careful integration of several available pest control techniques that discourage pest population development and keep pesticide and other interventions to levels that are economically justified and safe for human health and the environment.”

Foresters need to take this into consideration while formulating package of practices for tree cultivation and help our Nation to achieve the target of 33% of land area under tree cover.

This aspect also needs to be kept in mind while formulating pest and disease control practices for the tree cultivators.

**Warm regards
V.Prabhakaran, IFS (Retd),
Editor,
Namathu Vanam**

EXPLORING THE UNIQUE CHARACTERISTICS OF THE GRIZZLED GIANT SQUIRREL

G Sivagurunathan, ACF (Retd)

“In nature, nothing is perfect and everything is perfect. Trees can be controlled, bent in weird ways, and they’re still beautiful.”

- Alice Walker

Introduction

Tree squirrels, classified within the order Rodentia, are found on nearly every continent except Antarctica and Australia. They play a vital role in ecosystems by dispersing seeds and aiding pollination. The giant squirrel species, belonging to the genus *Ratufa* (Thorington & Cifelli, 1989), are the largest tree squirrels globally. These ecologically, morphologically, and zoo geographically unique creatures are restricted to Southeast Asia and serve as indicators of healthy habitats.

Tree squirrels bury seeds and nuts in the soil, creating a hidden stash for later consumption. This behaviour promotes tree regeneration, as some forgotten seeds inevitably germinate. Squirrels of all ages hoard these supplies; even juveniles exhibit this instinctive burying behaviour. Unfortunately, poaching of squirrel stockpiles is not uncommon, leading some squirrels to scatter their stores more widely to outsmart pilfering neighbours.

Squirrels are primarily vegetarian, with tree squirrels favouring nuts and seeds. However, they will also supplement their diet with leafy greenery. While the grey squirrel (*Ratufa indica*) found in Indian rainforests may debark branches to feed on the underlying growing tissue, most tree and flying squirrels are opportunistic omnivores and will also consume bird eggs and nestlings.

Squirrels have unusual arrangement of teeth for a rodent, a single pair of chisel-shaped incisors in each jaw a large gap in front of the premolars, and no canine teeth. The incisors grow continuously and are worn back by use; the cheek teeth are rooted and have abrasive chewing surfaces. The lower jaw is movable, and the lower incisors can operate independently.

Grizzled Giant Squirrel



Grizzled Giant Squirrel

The Grizzled Giant Squirrel (GGS) is one of the four giant squirrels found in the world. India has the unique distinction of being home to three of them. Apart from the GGS, the other two are the Malayan giant squirrel from north eastern India and the Indian giant squirrel, found across the Western Ghats.



Indian Giant Squirrel
Image Credit: Manojiritty

Grizzled Giant Squirrel (*R. macroura*) is endemic to India and Sri Lanka (Prater, 1980). Three subspecies of *R. macroura* have been identified: *Ratufa macroura dandolena* found in Tamil Nadu, and *Ratufa macroura macroura* and *Ratufa macroura melanochra* found only in Sri Lanka (Ellerman, 1961).

Though both found in southern India, the Indian giant squirrel and the GGS have distinct habitat preferences. A generalist, the Indian giant squirrel thrives in a wide variety of habitats, from deciduous to evergreen and shola forests, as noted by Nameer. In contrast, the Grizzled Giant Squirrel (GGS) depends entirely on riverine vegetation. The plant life that flourishes along rivers for its survival.

Due to its specific habitat needs, the GGS is now restricted to just nine fragmented locations in India. These areas include the Grizzled Giant Squirrel Wildlife Sanctuary, Srivilliputhur, Theni Forest Division, Palani Hills, Anamalai Tiger Reserve, Sirumalai, Tiruvannamalai

Forest Division, Hosur Forest Division (all in Tamil Nadu), and Cauvery Wildlife Sanctuary, along with the Cauvery basin in Karnataka and Chinnar Wildlife Sanctuary in Kerala.

The rarest and smallest of the giant squirrels found in India, the GGS is most active in the morning and early evening. Wildlife Biologist Ipsita Herlekar, who observed them in Karnataka's Cauvery Wildlife Sanctuary, writes that they use an interesting tactic to escape predators. When pursued by a predator, they run very quickly for a short distance before coming to a sudden halt. This confuses the predator and gives them a chance to escape.

Grizzled giant squirrels are diurnal and arboreal creatures, building numerous large nests (or drays) from leaves and twigs at varying heights (2.5 meters to 35 meters) in the trees. They rarely descend to the ground, only doing so in exceptional circumstances like escaping a persistent predator, fleeing an intruder, territorial disputes with males, or encountering females. Their good vision aids in detecting predators, but their hearing is relatively poor. Spot them during the day napping on branches in a spread-eagle pose. These squirrels are generally solitary, seen alone or in pairs, and fiercely territorial.

Highly vocal with a distinct voice, grizzled giant squirrels have a loud, staccato call with repeated shrill cackles, typically uttered mornings and evenings. A low "churr" serves for communication with nearby groups. When disturbed, they might flee, freeze, flatten themselves against a branch, or stay motionless in fright. Overall, these squirrels are cautious and adept at hiding within the dense vegetation.

Similar to other tree squirrels, the GGS plays a vital role in seed dispersal throughout the forest canopy. Preferring tamarind and mango trees in Srivilliputhur, *Terminalia arjuna* and *Pongamia pinnata*

in Chinnar (K. Senthil kumar, 2013) they also consume leaves and bark as part of their diet. Unfortunately, a decrease in canopy cover not only reduces their available habitat but also exposes them more directly to predators.

Mating Habits

Tree squirrels have a polygamous mating system in which either sex can have more than one mate. Mating behaviour of different species of squirrel are very similar. Females are estrus for less than one day and mates complete for access to the females. During mating chases in which a female is often followed by several males, she will try and avoid pursuing males and mate in sheltered locations with reduced risks of attack and injury. While much remains unknown about the mating habits and reproductive behaviour of Grizzled Giant Squirrels, some aspects are clearer. During the breeding season, they construct large nests resembling those of eagles. Females typically give birth to one or two kits (similar to human twins, but much rarer) after a gestation period of around 28 days. The young are nursed and remain in the nest for approximately two to three months.

PREGNANCY DURATION :	28 days
BABY CARRYING :	1 kitten
INDEPENDENT AGE :	2-3 months
FEMALE NAME :	doe
MALE NAME :	buck
BABY NAME :	pup, kit, kitten

Both parents work together to protect their young. They build a large dray (nest) in a safe and sheltered location. The size of their territory is determined by the availability of food sources - the more food available, the smaller the territory they need to maintain.

Potential hybrids



Image Credit: Raveendran Natarajan

Very strange combination of Malabar Giant and Grizzled Giant Squirrel

According to Johnsingh, the first instance of breeding between a GGS and an Indian giant squirrel was observed by Justus Joshua in the Ayyanar Koil Valley of the Rajapalayam Hills, located within the Srivilliputhur Grizzled Giant Squirrel Sanctuary. He further explains that such hybridizations are more likely to happen when closely related species share the same habitat.

While studying the Chinnar Sanctuary, Nameer and Thomas observed something fascinating: giant squirrels with characteristics of both the Grizzled Giant Squirrel and the Indian Giant Squirrel. These likely hybrids displayed a mix of fur colours from both parent species. Similar inter-species matings have been documented by other researchers. The reason for these hybrids remains unclear, but Nameer expressed concern, suggesting it "might not be a healthy sign for either species."

In nature, interspecific hybrids, offspring from matings between different species, are relatively uncommon. This rarity stems from the biological definition of a species itself: a group of individuals capable of interbreeding and producing fertile offspring. When animals from different species mate, the resulting hybrids are often infertile, like mules (offspring of horses and donkeys). However, there have been documented cases where fertile hybrids emerged and even evolved into entirely new species.

Despite a documented decline in Grizzled Giant Squirrel populations, researchers are also encountering them in new areas. Earlier this year in January, a team from Pondicherry spotted a pair of GGS in the Pakkamalai Reserve Forest (Villupuram district, Tamil Nadu), marking the first sighting there. The researchers even observed seven drays (squirrel nests) in the area. The Pakkamalai forest, an offshoot of the Eastern Ghats, has never before been known to harbour these squirrels.

Fragmentation of area

These squirrels are canopy dwellers require a continuous tree canopy for free movement and for expanding their territory. When the population increases, more and more canopy areas will be required for the new members. If there were a large discontinuity in the canopy, the arboreal squirrel would not be able to reach a new canopy area by passing through the ground. This means there is no scope for the expansion of their populations in such areas. Such isolated populations without any scope might have vanished in the future (Paulraj 1992).

Srivilliputhur Grizzled Giant Squirrel

The Srivilliputhur Forests, spanning 476.65 square kilometres, are home to the endangered Grizzled Giant Squirrel. Declared a sanctuary in December 1988

specifically for their protection, these forests now hold a population exceeding 650 squirrels, according to estimates. This is a significant increase from the national count of around 500 mature GGS reported by the IUCN in 2010.



The author with the back ground of Kallugumalai mottai in Alagarkoil Valley

The sanctuary encompasses an elevational range between the plains and 800 meters above sea level (MSL) in the Alagarkoil and Shenbagathoppu valley area. It's estimated that over 300 GGS reside within this protected area.

The presence of these rare squirrels signifies the richness of the Srivilliputhur Forests and serves as a point of pride for conservation efforts.

Activity Pattern

A study by Golusu Babu Rao (2015) examined the daily activity patterns of GGS across the Shenbagathoppu Valley, which encompasses temple land, private land, and reserved forests. Researchers observed eight distinct behaviours: feeding, moving, exploring, grooming, chasing, freezing, resting, and others. The "others" category included playing, calling, urination, defecation, nest arrangement, mating,

cleaning, hanging, yawning, and so on.

Feeding occupied the most significant portion of the GGS' day, with time spent on feeding varying across habitats: 26.1% on private land, 36.4% in the reserve forest, and 35.4% on temple land. Notably, feeding followed a bimodal pattern in all habitats, with peaks in the morning and at the end of the day. Interestingly, females generally dedicated more time to feeding compared to males.

Resting was the second-most dominant activity across all habitats. The percentage of time spent resting varied: 35.9% on private land, 28.8% in the reserve forest, and 30.5% on temple land. Resting behaviour was observed more frequently during midday hours.

Exploring, which included vigilance, accounted for 7.6% of the time on private land, 8.8% in the reserve forest, and 9.1% on temple land. "Moving" was another behaviour, likely associated with finding food or responding to disturbances. The time spent moving by squirrels differed between habitats: 19.3% on private land, 14.1% in the reserve forest, and 15.5% on temple land.

As observed in other squirrel species, grooming time was higher for females. In contrast, chasing behaviour was more frequent in males, likely during mating or territorial defence. Interestingly, freezing behaviour was observed more often in females across most habitats. Time spent on other activities exhibited significant variations between sexes and across the different habitats.

Food Habits

The Shenbagathoppu Valley forms the core area of the sanctuary. This valley encompasses a mix of land types: private land, reserve forest, and temple land. All these areas surround the valley's riverine habitat.

The reserve forest is dominated by tamarind trees (*Tamarindus indica*). In the past, this area was clear-felled for kumri cultivation (a slash-and-burn agricultural practice) and then replanted with tamarind plantations. Similarly, private plantations and temple land also contain tamarind groves alongside mango trees (*Mangifera indica*). These species were favoured due to their suitability for the region and their economic importance as crops. It's remarkable to see such a large population of giant tamarind trees alongside majestic mango trees, forming a true bounty for these forests.

The temple land presents a unique blend of planted species (tamarind, mango, and amla) interspersed with native species from the reserve forest. This area has been left unmanaged for several years, resulting in dense undergrowth and a diversity of climbing plants. In contrast, the private land is well-maintained, with minimal undergrowth and climber species. The private land features a variety of planted trees, including mang o, tamarind, coconut (*Cocos nucifera*), sapodilla (*Manilkara zapota*), guava (*Psidium* spp.), citrus (*Citrus* spp.), Madras thorn (*Pithecellobium dulce*), and arjuna (*Terminalia arjuna*).

Previous research by Golusu Babu Rao (2015) identified 23 different plant species consumed by GGS as food. These included trees (48%), climbers (43%), and shrubs (9%). Interestingly, the squirrels utilized a higher variety of plants on temple land (19 species) compared to the reserve forest (6 species) and private land (5 species).

Of the 23 plant species, GGS primarily targeted seven different plant parts: sprouting leaves (most frequent at 38%), followed by fruits (24%), bark (15%), flowers (12%), pith (6%), flower buds (3%), and seeds (3%). Leaves from mango (*Mangifera indica*) and tamarind (*Tamarindus indica*) were the most popular choices.

The squirrels were observed consuming bark from five plant species: *Mallotus philippensis*, *Mangifera indica*, *Phyllanthus emblica*, *Tamarindus indica* and *Terminalia arjuna*. Notably, bark from tamarind and *Mallotus philippensis* seemed to be their favourites.

Fruits from mango and tamarind were the most consumed fruits overall. However, my observations and conversations with local tribal people suggest that GGS are not particularly fond of the fleshy part (mesocarp) of these fruits. Instead, they prefer the young seed kernels and the inner portion (endocarp).

Flowers from *Albizia lebbeck* and mango were other dietary staples. Pith, the soft inner core of stems, was consumed more from mango and *Tinospora cordifolia*. Additionally, *Ziziphus oenoplia* seeds were another food source.

Overall, tamarind and mango emerged as the dominant food plant species for GGS. They consumed five parts of the mango tree (flowers, fruits, leaves, bark, and pith) compared to three parts of the tamarind tree (fruits, leaves, and bark). Interestingly, the availability of different food plants and the specific plant parts consumed varied across the three habitats and throughout the months. Temple land consistently offered the most diverse food options throughout the year. Food plant utilization and the number of consumed plant parts also increased from December to March. This suggests a potential shift in dietary preferences based on seasonal availability. Finally, it's important to note that leaves were a consistently consumed food source across all months, likely due to their constant availability.

The abundance of food sources on farm plantations is likely a major reason why Grizzled Giant Squirrels (GGS) are moving into these areas. This readily available food allows them to meet their daily needs quickly, minimizing foraging

time. Additionally, farm plantations may offer less predator pressure compared to their natural habitat.

Nesting Habits

Arboreal mammals, like the Grizzled Giant Squirrel (GGS), rely heavily on the forest's spatial structure for nesting. These squirrels seek out areas with abundant food sources and well-connected canopies to establish their homes and build their nests. Arboreal mammals are dependent on the spatial structures of the forest for nesting. Therefore, the presence of nests in an area reflects the quality of the habitat around it and also indicates the degree of usage of the area by the species (Datta and Goyal, 2008). The CCG constructs globular nests or drays using leaves and twigs, multiple in numbers within their home range (Srinivas et.al., 2008). They typically favour larger trees with significant girth at breast height (gbh) and impressive heights, offering them a good number of branches suitable for nest construction. According to Ramachandran (1992), this preference for mature trees with a more continuous canopy provides several advantages. It allows for easier movement in all directions from the nest, crucial for escaping predators and reaching different parts of their home range for foraging and other activities. Researchers Juliet Vanitharani and Kavitha Bharathi (2011) have contributed significantly to our understanding of GGS behaviour through their insightful observations and studies.

The nesting trees of GGS are *Lannea coromandelica*, *Mangifera indica*, *Stereospermum chelonoides*, *Cullenia exarillata*, *Eriofendron pentandrum*, *Tamarindus indica*, *Terminalia arjuna*, *Terminalia bellirica*, *Terminalia chebula*, *Terminalia tomentosa*, *Azadirachta indica*, *Melia azadirachta*, *Albizia amara*, *Albizia lebbeck*, *Ficus benghalensis*, *Ficus racemosa*, *Syzygium cumini*, *Dalbergia latifolia*, *Pterocarpus marsupium*, *Sapindus emarginatus*, *Schleichera oleosa*,

Grewia tiliaefolia, *Gmelina arborea* and *Tectona grandis*.

Grizzled Giant Squirrels (GGS) are adept nest builders, crafting their homes on the forked branches of trees where the crowns meet their neighbours. Within the Srivilliputhur sanctuary, researchers observed a preference for specific nest-building sites. Out of 35 key trees identified, squirrels heavily utilized 25 of them. Notably, tree species like *Pterocarpus marsupium*, *Stereospermum chelonoides*, *Schleichera oleosa*, *Tamarindus indica*, *Terminalia arjuna*, and *Mangifera indica* were found to house multiple nests.

An interesting trend emerged from analysing squirrel interactions within the sanctuary: they significantly favoured nesting in deciduous trees compared to evergreen ones. *Schleichera oleosa* was the most popular choice for nesting, followed closely by *Mangifera indica* (mango). This preference for mango and *S. oleosa*, primarily found along rivers and streams, can likely be attributed to the dense canopy cover they offer. The dense foliage, combined with greater canopy height and contiguity, provides superior protection and potential escape routes from predators. This preference for well-connected canopies aligns with observations made by Nagarajan et al. (2011) regarding the habitat choices of many arboreal dwellers.

Threats faced by GGS

In the past, Grizzled Giant Squirrels (GGS) faced numerous threats mentioned by Paulraj & Kasinathan (1992), including the illegal collection of non-timber forest products (NTFP), forest fires, illegal logging for firewood, poaching, and livestock grazing. Fortunately, these activities are no longer permitted within the sanctuary.



Image Credit: Vaishakh Manohar

Legge's Hawk-eagle with gaint squirrel kill

Predators like the Black Kite and Crested Serpent Eagle are common in the area and often prey on young pups. This predation is a natural part of the ecosystem, helping to regulate GGS populations.

These squirrels are canopy dwellers, hence discontinuous forest restricts their movement and dispersal. Habitat fragmentation leads to geographic isolation, reduction in genetic diversity, and a decline in the population size of the dependent species (Agetsuma, 1995).

Thousands of pilgrims visit GGS habitat areas in Pechiamman and Alagarkoil (Srivilliputhur Range), Ayyanar Koil (Rajapalayam Range), and Sathuragiri hills (Watrap Range). Pilgrim rights of way are provided in these areas.

Site record near the GGS Sanctuary:

Grizzled Giant Squirrels (GGS) have been sighted near Government Hospital in Rajapalayam, specifically at Chinmaya School and Annappa Raja School. An interesting observation is the presence of a GGS dray (nest) located within a coconut tree on the grounds of Annappa Raja School.

Incentive to Private Land owners:

To encourage the conservation of GGS on private lands, a centralized government-sponsored program provides a small annual incentive to landowners. This incentive amounts to Rs. 1,000 per GGS nest (dray) per year. In total, approximately Rs. 200,000 is distributed annually as incentive payments.

Conclusion:

In the past, the conservation efforts of the Grizzled Giant Squirrel (GGS) faced numerous challenges and threats that hampered their population growth. However, thanks to improved protection measures within the sanctuary, there has been a significant increase in the GGS population. Despite this positive trend, the old challenge of the inflow of thousands of pilgrims throughout the year into the sanctuary, coupled with the fragmentation of the area, is always threatening the population of the squirrel. This influx of human activity is disrupting the natural habitat of the GGS, putting their numbers at risk. By increasing the presence of Squirrels interact tree species in the affected forest cover of the sanctuary, we hope to enhance the population of the GGS to the ecological carrying capacity of the habitat. As efforts continue to protect and preserve this unique species, it is crucial for all stakeholders to work together to safeguard the future of the GGS and maintain the delicate ecological balance of the sanctuary.

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ஊருக்குள் புதுந்த கொம்பன் யானை

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கடந்த 2009 ஆம் ஆண்டு டிசம்பர் 15 ஆம் நாள் காலை 8.30 மணியளவில் சென்னையிலிருந்து புறப்பட்ட அனந்தபுரி எக்ஸ்பிரஸ் நாகர்கோவிலை நெருங்கிக் கொண்டிருந்தபோது, என்னுடைய கைபேசி சிறைக்கியது. நான் அதை ஆன் செய்தபோது மறுமுனையில் ராதாபுரம் தொகுதி சட்ட மன்ற உறுப்பினர், ‘ஜீயா! உங்கள் யானைகள் காட்டிலிருந்து பணகுடி ஊருக்குள் வந்துவிட்டன. மக்கள் மிகவும் பயந்துபோய் உள்ளார்கள். உடனடியாக நடவடிக்கை எடுங்கள்’ என்று வேண்டினார். அதைக் கேட்ட எனக்கு மிகுந்த ஆச்சரியம். ‘நாகர்கோயில் சமீபம் புகைவண்டியில் வந்து கொண்டிருக்கிறேன். உடனே உரிய நடவடிக்கை எடுக்கிறேன். கவலைப் படவேண்டாம்’ என்று பதில் அளித்தேன்.

பணகுடி மேற்குத் தொடர்ச்சி மலையில் அமைந்துள்ள மகேந்திரகிரி காப்புக்காட்டின் அடிவாரத்தில் உள்ள ஒரு சிறிய நகரம். இது திருநெல்வேலி மாவட்டத்தைச் சேர்ந்திருந்த போதும், வனத்துறையைப் பொருத்தமட்டில் கன்னியாகுமரி மாவட்ட வனத்துறையின் நடவடிக்கைகள் தான் இங்கே அதிகம் இருக்கும். பூதபாண்டி வனச் சரக எல்லைக்குள் இந்த ஊர் வருகின்றது. உடன் பூதபாண்டி வனச் சரக அலுவலரைத் தொடர்பு கொண்டபோது, வனப் பணியாளர்கள் பணகுடி சென்று யானையைக் கட்டுக்குள் கொண்டு வரவும், மக்களுக்கு ஏதும் தொல்லை நேராமல் பாதுகாக்கவும் வேண்டிய நடவடிக்கைகள் எடுத்துக் கொண்டிருப்பதாகத் தெரிவித்தார்.

இதுகுறித்து சென்னையில் உள்ள தலைமை வன உயிரினக் காப்பாளரைத் தொடர்பு கொண்டு பேசியபோது, பொள்ளாச்சியில் இருந்து வனத்துறையில் பணியாற்றும் கால்நடை மருத்துவர் இங்கே வருவதற்கு சமார் 12 மணி நேரம் ஆகும் என்றும், எனவே அருகிலுள்ள வேறு எவரையேனும் தொடர்பு கொள்ள அறிவுறுத்தினார். உடனே கேரளாவில் உள்ள தலைமை வன உயிரின காப்பாளரைத் தொடர்பு கொண்டபோது, அவர் அங்குள்ள கால்நடை மருத்துவரின் கைபேசி என்னைக் கொடுத்து என்னை அவரிடம் பேசச் சொன்னார். அவரிடம் பேசியபோது, அவரதுதுறையின் இயக்குனரிடம் அனுமதி வாங்க வேண்டும் என்று சொன்னார். இயக்குனரைத் தொடர்பு கொண்டபோது, நாகர்கோயில் தமிழ் நாட்டில் இருக்கின்ற படியினால், இங்குள்ள கால்நடைத் துறை இயக்குனரையே நான் தொடர்பு கொள்ள வேண்டுமென்று கூறினார். நாகர்கோயில் திருவனந்தபுரத்திற்கு வெகு அருகே இருக்கின்றபடியால், அங்கிருந்து ஒரு மருத்துவரை அனுப்புவது எளிதாகும் என்று நான் எடுத்துரைக்க , இதுபற்றி ஒரு பாக்ஸ் (Fax) செய்தி அனுப்ப அறிவுரை வழங்கினார்

அதன் படியே விவரங்களை எல்லாம் விளக்கி செய்தி பாக்ஸ் மூலம் இயக்குனருக்கும், கேரளதலைமை வன உயிரின காப்பாளருக்கும் அனுப்பி வைக்கப்பட்டது . பின் மீண்டும் கேரள கால் நடை மருத்துவரைத் தொடர்பு கொண்டபோது, அவர் தனியார் கால் நடை மருத்துவர் Dr. அரவிந்தன் அவர்களின் கைபேசி என்னைக் கொடுத்து அவரைத் தொடர்பு கொள்ளச் சொன்னார். அவரைத் தொடர்பு கொண்ட போது, கேரள தலைமை வன உயிரின காப்பாளர் கொடுத்த தகவலின் பேரில் அவரும் அவரது குழுவினரும்

நாகர்கோயில் வந்து கொண்டிருப்பதாகத் தெரிவித்தார். இந்த நேரத்தில் நெல்லை மாவட்ட ஆட்சியர் என்னைத் தொடர்பு கொண்டு யானையைக் கட்டுப்படுத்த விரைவு நடவடிக்கை எடுக்கக் கேட்டபொழுது, அவரிடம் நான் எடுத்துவரும் நடவடிக்கைகள் குறித்துத் தெளிவாக விவரிக்க, அதைக் கேட்டு அவரும் திருப்தி அடைந்தார்.

இதற்கிடையில் ஊருக்குள் புகுந்த யானை என்ன செய்கின்றது என்பதை அவ்வப்போது பூதபாண்டி சரகர் என்னிடம் பகிர்ந்து கொண்டே இருந்தார். யானைப் பாகன் இருந்தால், ஓரளவு யானையைக் கட்டுக்குள் கொண்டு வர வரமுடியும் என்று அவர் சொல்ல, உடனே நெல்லையில் உள்ள இந்து அறநிலையத் துறை இணை ஆணையரைத் தொடர்பு கொண்டு செய்தியைச் சொன்ன உடனேயே அவர் சீசிந்தரம் கோவிலில் இருந்து பாகனை அனுப்பி வைக்க சம்மதம் தெரிவித்தார்.

இப்படியாக நான் எனது குடியிருப்பைச் சென்று சேர்ந்ததிலிருந்து காலை 11 மணி வரை பல்வேறு அலுவலர்களைத் தொடர்பு கொண்டு வேண்டிய நடவடிக்கைகளை எடுத்து, இது பற்றியெல்லாம் திருநெல்வெலியிலுள்ள உள்ள வனப் பாதுகாவலருக்கும், சென்னையில் உள்ள தலைமை வன உயிரின காப்பாளர் க்கும் அவ்வப்போது செய்திகளை பரிமாறிக்கொண்டே இருந்தோம்.

இந்த முன்னேற்பாடு நடவடிக்கைகளை ஒருவாறு வெற்றிகரமாக எடுத்து முடித்தவுடன், பணகுடி நோக்கிப் புறப்பட்டோம். எங்கள் வாகனம் சுமார் அரை மணி நேரத்தில் பணகுடியைச் சென்றதைந்தது. அதற்குள்ளாக யானை ஊருக்கு வடக்கே இருக்கும் ஏரிக்குச் சென்றுவிட்டது. யானையை வேடிக்கைப் பார்க்க நூற்றுக்கணக்கான மக்கள் அதைச் சுற்றிலும் கூடியிட்டனர். அதனால் யானை எங்கே செல்வதென்று தெரியாமல் அங்கும் இங்கும் அலையை ஆரம்பித்தது. சற்றே அருகில் சென்று கூர்ந்து பார்த்தபோதுதான், அது சுமார் 15 வயதுள்ள ஆண் யானை என்ற விவரம் தெரிந்தது. நல்லவேணையாக அந்த யானை சாதுவான விலங்காக இருந்த காரணத்தால், யாருக்கும் எந்தக் தீங்கும் அது வினைக்கவில்லை.

தாத்துக்குடியில் இருந்து வடக்கன் குளம் கோயில் திருவிழாவிற்கு கொண்டுவரப்பட்ட தனியார் யானையை, திருவிழா முடிந்தபிறகு அதன் பாகன் ஒரு பொது இடத்தில் கட்டிவைத்து விட்டு ஊருக்குச் சென்று விட்டான். இரண்டு நாட்கள் ஆன பிறகும் பாகன் திரும்பி வராததால், உணவும், நீரும் இன்றி வாடிய யானை பசியின் காரணமாக ஊருக்குள் புகுந்து அங்கிருந்த பழக் கடையில் இருந்த பழங்களைத் தின்றுள்ளது. இந்தத் தகவல் கிடைத்த வனத் துறைப் பணியாளர்கள் உடனடியாகக் களத்தில் இறங்கி அந்த விலங்கினால் பிறருக்குத் தொல்லை ஏதும் நேரா வண்ணம் ஊர் மக்களை எச்சரிக்கை செய்து அதை கவனமாகப் பின் தொடர்ந்துள்ளனர். அந்தச் சமயத்தில் திருநெல்வேலி மாவட்ட காவல் துறைக் கணகாணிப்பாளர் அனுப்பிய காவல் துறை அலுவலர்களும் ஒரு ஈப்பில் வந்து அங்குள்ள மக்கள் கூட்டத்தை ஒழுங்கு படுத்தி உதவியுள்ளனர்.

வனத்துறை, காவல் துறை மற்றும் வருவாய்த்துறையினர் ஒன்றியைந்து அந்த யானையை ஒரே இடத்தில் இருக்க வைக்க முயற்சி செய்துள்ளனர். ஆனால், பொதுமக்கள் அதிக அளவில் கூடியிட்டதாலும் அவர்கள் எழுப்பிய கூக்குரலாலும் யானை அங்குமிங்கும் சுற்ற ஆரம்பித்து, அங்கிருந்த நெல்வயலில் புகுந்து பின் பணகுடி வள்ளியூர் நெடுஞ்சாலையை நோக்கி நடக்கத் தொடங்கியது. அது எந்த திசையில் எங்கே செல்கிறதென்று யாராலும் கணிக்க இயலவில்லை.



நெல்வயலின் குறுக்கே நடந்து செல்லும் யானை



யானை ஊரின் தெருவழியே நடந்து செல்கின்றது

இந்நிலையில் யானை வள்ளியூர் நெடுஞ்சாலையில் நடக்கத் தொடங்கியது. அங்கே சாலை ஒரம் மக்கள் நின்று கொண்டிருந்தனர். ஒருவேளை அவர்களுக்கு ஏதேனும் தீங்கு நேர்ந்தால் அது பெரும் பிரச்சினையாகிவிடும் என்று அச்சம் கொண்ட நான், அங்கே வந்து கொண்டிருந்த காவல் துறை ஈப்பைக் கண்டு அதில் இருந்த உதவி ஆய்வாளரிடம் அங்கிருந்த மக்களை ஒதுங்கிச் செல்லுமாறு அறிவுரை வழங்குமாறு கேட்டுக் கொண்டேன். அவ்வாறே அவர்களும் உடன் விரைந்து மக்களை எச்சரித்தனர்.

ஆனால் யாரும் எதிர்பாராத விதமாக யானை நெடுஞ்சாலையின் கிழக்குப் புறம் திரும்பி, சாலையின் மறுபுறம் இருந்த விவசாய நிலத்தில் நடக்க ஆரம்பித்தது. அங்கே வேலை செய்துகொண்டிருந்த வேலையாட்களைச் சுத்தம் போட்டு எச்சரிக்க அவர்களும் சுதாரித்துப் பாதுகாப்பான இடத்திற்குச் சென்றனர்.

அந்த நேரத்தில் கால்நடை மருத்துவர் Dr. அரவிந்தனும் அவரது குழுவினரோடு ஈப்பில் வந்து எங்களுடன் சேர்ந்துகொண்டனர். உடன் Dr. அரவிந்தன் என்னுடைய ஈப்பில் ஏறிக் கொள்ள நான் அவரிடம் எல்லா விசயங்களையும் பகிர்ந்து கொண்டேன். யானை கலந்தபனை என்ற ஊரை நோக்கி வேகமாக நடக்கத் தொடங்கியது. அந்த ஊரில் திருவிழா நடந்து கொண்டிருந்தது. ஊர் மக்கள் யானை ஊருக்குள் வருவதை அறியாமல் விழாக் குதூகலத்தில் மகிழ்ந்திருந்தனர். அரவிந்தன் துப்பாக்கியில் மயக்க ஊசியைப் பொருத்தி யானையைச் சரியான இடத்தில் சுடுவதற்குத் தயாராக இருந்தார். யானையை நெருங்கியபோது அவர் துப்பாக்கியால் சட, ஊசி அதன் பின் தொடையில் லேசாகக் குத்திக் கீழே விழுந்துவிட்டது. யானை அதை சட்டை செய்ததாகத் தெரியவில்லை. அது பாட்டுக்கு தொடர்ந்து நடந்து கொண்டே இருந்தது.

என் மனம் மிகவும் சஞ்சலம் அடைந்தது. ஏனெனில் யானை ஊருக்குள் கூடியிருக்கும் மக்கள் கூட்டத்தில் நுழைந்தால், ஏதேனும் அசம்பாவிதம் நடந்துவிடுமோ என்ற அச்சம் என் மனதில் நிழலாடியது. ஊருக்குள் செல்லும் பாதை குறுகலாக இருந்ததால், யானையைத் தாண்டி எங்களால் செல்ல இயலவில்லை. அதுசமயம் அங்கே வந்த ஒரு இருசக்கர வாகனத்தை நிறுத்தி, அதில் ஒரு வனக் காப்பாளரையும் உடன் அனுப்பி வைத்து, ஊர் மக்களை எச்சரிக்கை செய்யக் கேட்டுக் கொண்டோம்.

Dr. அரவிந்தனோ எதைப் பற்றியும் கவலைப் படாமல் இன்னொரு மயக்க ஊசியைத் துப்பாக்கியில் பொருத்தி யானையை மிகவும் நெருக்கமாகப் பின்தொடர்ந்து சென்று கொண்டிருந்தார். யானையும் எந்தவித இடையூறும் செய்யாமல் அந்தப் பாதையிலிருந்து வட புறம் உள்ள சாலையில் திரும்பி நடக்க ஆரம்பித்தது. வனத்துறையினரும், கால்நடை

மருத்துவக் குழுவினரும் யானையைப் பின் தொடர்ந்து சென்று கொண்டிருந்தோம். கிராமத்தின் வடக்கே இருந்த ஓர் ஏரியின் தென் கரையை அடைந்த யானை அங்கே வளர்ந்திருந்த புளிய மரங்களின் நிழலில் சற்றே ஒய்வெடுத்தது. சரியான சந்தர்ப்பத்தை எதிர்நோக்கிக் காத்திருந்த டாக்டரும் உடனே செயல்பட்டு மயக்க ஊசியை யானையின் வலது தொடையில் ஆழமாகப் பதித்துவிட அனைவருமே ஓர் ஆழந்த பெருமூச்சு விட்டோம்.

மீண்டும் யானை கிராமத்தை நோக்கி நடக்க ஆரம்பித்தது. அதற்குள்ளாக மக்கள் செய்தி அறிந்து மிகவும் கவனமாக நடந்து கொண்டனர். அதுவரை எங்களோடு வந்து கொண்டிருந்த களக்காடு துணை இயக்குனர் திரு.சி.பத்ரசாமி அவர்களை யானையின் முன்னாள் அவரது ஈப்பில் செல்லும் படி கேட்டுக்கொள்ள அவரும் அவ்வாறே செயல்பட்டார். எங்களது வாகனங்களும் யானையைப் பின்தொடர்ந்தன. சற்று நேரத்தில் யானையின் வேகம் குறைய ஆரம்பித்தது. திடீரென்று யானை அங்கே இருந்த ஒரு தென்னந்தோப்பில் நுழைந்துவிட்டது.



மயக்க மருந்தின் விளைவாகத் தளர்ந்துபோன யானை

டாக்டரும் அவர் குழுவினரும் விரைந்து செயல்பட்டு யானையின் பின்னங்காலில் கயிற்றைக் கட்டி அதை ஒரு தென்னைமரத்தோடு சேர்த்துக் கட்டிவிட்டார்கள். துவக்கத்தில் யானையைக் கட்டுக்குள் கொண்டுவருவது சற்றே சிரமமாக இருந்தாலும், சற்று நேரத்தில் அது சாந்தமாகி விட்டது. சிறிது நேரத்தில் அதன் தலை தொங்கியபடி, வால் தளர்ந்தது. மயக்க மருந்து வேலை செய்ய ஆரம்பித்ததன் அடையாளங்கள் இவை என்று அறிந்துகொண்டோம். டாக்டருக்கும் அவர் குழுவினருக்கும் நான் மனதார நன்றி தெரிவித்தேன்.

தென்னந்தோப்பின் உரிமையாளர் மிக நல்ல மனிதரானதால், யானைக்காக தென்னங்கீற்றுகளும், வாழை மரங்களும் அவரே முன்வந்து உணவாக அளித்தார். சுசிந்தரம் கோயில் யானைப் பாகன் ஜயப்பனும் அங்கு வந்து சேர ஒரு மாதிரியாக யானையைக் கட்டுக்குள் கொண்டுவர முடிந்தது. பணகுடி பிரிவு வனவர் மற்றும் வனக் காப்பாளர்கள் அங்கேயே இருந்து யானையைக் கண்காணித்துக் காத்து வந்தனர் .

இவ்வளவு சம்பவம் நடந்த பிறகு இரண்டு நாட்கள் கழித்தே யானையின் உரிமையாளரும், அதன் பாகனும் அங்கே வந்துள்ளனர். ஏனென்றால் அவர்களைக் கைது செய்துவிடுவோமோ என்ற பயம் அவர்களுக்கு. அதன் பின்னரே யானையின் பெயர் ஜயப்பன் என்ற உண்மையை நாங்கள் அறிந்தோம்.



பாக்டரி அரசின்தன் மற்றும் அவர் குழுவினருடன் ஆயோசனை

யானைக்குக் கரும்பு, தென்னங்கீற்று, வாழைப்பழம் முதலானவை உணவாக வழங்கப்பட்டன. யானையின் உண்மையான பாகன் ரசலையன் அங்கே வந்த பிறகு யானையின் மேல் நீர் பீச்சி அடித்து அதைக் குளிப்பாட்டியுள்ளார்கள். இருந்த போதும் பாகன் மீது கோபம் கொண்டிருந்த யானை ஒரு சமயத்தில் அவனை தும்பிக்கையால் லேசாக அடித்துவிட்டதாக அறிந்தேன். உணவும் நீரும் இன்றி இரண்டு நாட்கள் அம்போ என்று விட்டுச் சென்றுவிட்டால் யாருக்குத்தான் கோபம் வராது.

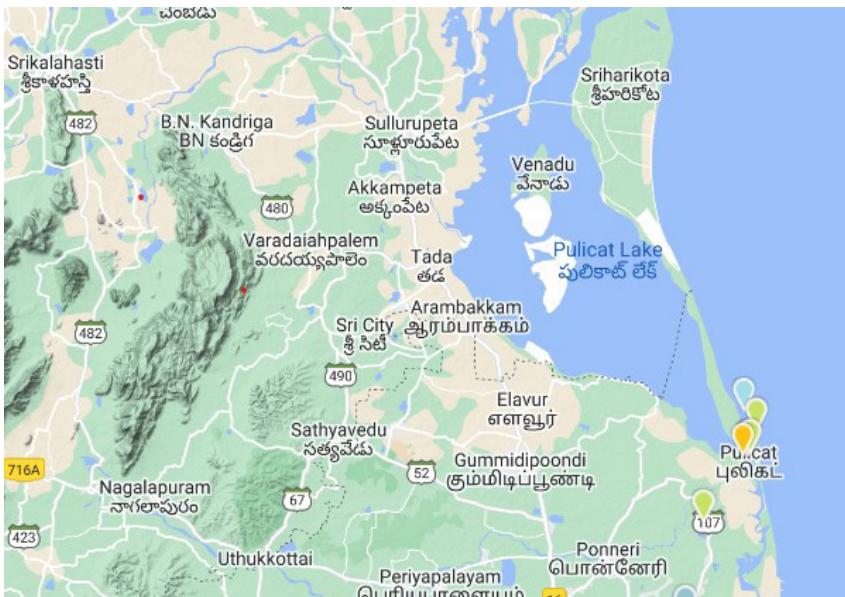
கலந்துபனை கிராமம் திருநெல்வேலி மாவட்ட எல்லைக்குள் வருகின்ற காரணத்தால், யானை சில தினங்கள் கழித்து 19 ஆம் தேதியன்று நெல்லை கோட்டத்தைச் சேர்ந்த திருநெல்வேலி சரக வனவர் வசம் ஒப்படைக்கப்பட்டது. வனப் பணியாளர்களுக்குத் தங்க இடம் கொடுத்த வீட்டு உரிமையாளருக்கும், தென்னந்தோப்பின் உரிமையாளருக்கும் நன்றி கூறி வனப் பணியாளர்கள் விடை பெற்றுச் சென்றனர்.

விடாழுயற்சியும், நம் கடமையில் உண்மையான ஈடுபாடும் நிச்சயம் வெற்றியைத் தேடித் தரும் என்பது இந்த நிகழ்வின் மூலம் அனைவரும் அறிந்து கொள்ளவேண்டிய ஓர் உண்மையாகும். அதே போன்று ஒவ்வொருவரும் அரசுப் பணியாற்றும் போது, சம்பத்தப்பட்ட பிற அலுவலர்களையும் நன்கு தெரிந்து வைத்துக் கொண்டு சந்தர்ப்பம் நேரும்போது அவர்களின் சேவையைப் பயன்படுத்திக் கொள்ளவேண்டும். எந்த ஒரு பிரச்சினையையும் நேர்மறையாக நாம் அனுகும்போது அதை எளிதாக வெற்றிகொள்ள முடியும்.

TERN-ing in Pulicat lake

K. Dhanapal M.Sc, DCF (Retd)

My favourite birding spots for waders (shore birds) in Tamilnadu are Pulicat Lake and Point Calimere bird sanctuary. Pulicat Lake is special when it comes to occasional vagrants. Pulicat Lake is shared by two states Andhra Pradesh and Tamilnadu, major portion being in the former. It is also second largest brackish water lagoon in India after Chilka Lake in Odisha.



During the Dutch occupation, Pulicat was known by the name Pallaicatta.

Pulicat Lake is about 760 square kilometer and due to its shallow water it attracts lot of avifauna especially waders and sea birds. Both the states have established Bird sanctuaries long back.

Andhra Pradesh has established Pulicat bird sanctuary in 1976 over an area of 172 sq.km and whereas Tamilnadu started in 1980.

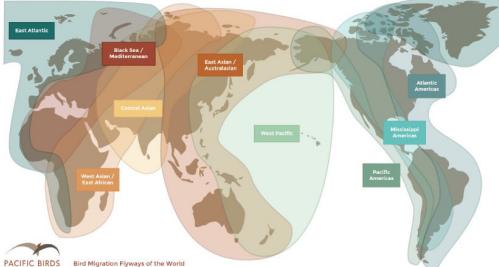
Pulicat has a record of more than 230 species of birds, most of them are migratory. It's also an important stop over along the international Bird Migration Flyways.

Three major Flyways namely Central Asian Flyway, East-Asian Australian Flyway and Asian East-African Flyway passes through Indian sub-continent.

The shallow water attracts many birds especially Flamingoes. *Greater Flamingos* are seen in large numbers than *Lesser Flamingo*. Apart from this many Gulls, Terns and Plovers used to visit the lake in winter.

Many endangered species like *Bar-tailed Godwit*, *Black tailed Godwit*, *Eurasian Curlew*, *Indian Skimmer*, *Lesser Flamingo*, and *Oystercatcher* are notable sightings in this lake.

Lesser Frigate bird, *Grey tailed Tattler*, *Crab Plover*, *Amur Falcon* and *Parasitic Jaeger* are occasional vagrants recorded in the past.



Greater Flamingo

Many birders visit the lake to see the migratory birds, by hiring a boat. One boatman Thiru Yuvaraj, is a famous guide who takes the birders in his diesel engine boat to the interior parts of the lagoon. Morning session starts by 6 am and ends around 10 am, and evening session is between 3 to 6 pm.

Chennai birders have trained Thiru Yuvaraj in identifying the birds and he is now well versed in identifying various Gulls, Terns and Plovers.

Yuvaraj, originally a fisherman from Pazhaverkadu village has part time earnings from the birders during the migrating season.



In the picture Thiru Yuvaraj standing behind. Others are myself and my birding friends during the recent trip in June 2024.

My first visit to Pulicat lake was in February 2018 in which I saw many species of Terns, Gulls, Plovers, Godwits etc. I was thrilled to see the Greater Flamingos in large numbers and a pair of Ruddy Turnstone.

My second visit was in October 2018 in which I saw the Eurasian Oystercatcher for the first time and it is a “Near Threatened” species.



Eurasian oystercatcher



Bridled Tern

My third visit to the lagoon was when I heard that Bridled Tern was sighted in Pulicat Lake in November 2020. Upon hearing the news I immediately rushed from Bangalore by overnight train and reached Pulicat next day morning.

Bridled Terns are rarely seen near land except when blown off course during a bad weather. They usually stay far offshore and breeds on islands concealed by a large rock or bush.

I could get only a glimpse of the bird flying during that trip to Pulicat. But later during a pelagic trip off the Mangalore coast I got a better shot of this rare bird.

During August 2021, I got a message from Yuvaraj, that Lesser Noddy is sighted in Pulicat Lake. Since I haven't seen this bird before I went along with some birders from Bangalore.

Noddy is also a type of Tern, often found offshore. Noddies named for their nodding displays are tropical birds with wedge shaped tails. There are five species of Noddies belong to the genus *Anous*. Three species namely *Black*, *Brown* and *Lesser Noddy* frequent the western coast of India. *Black Noddy* is rarely sighted along the coasts of Gujarat.



Lesser Noddy



Brown Noddy

Lesser Noddy was first recorded in Pulicat in May 2018 and I was not able to make a visit during that time. So I immediately rushed to Pulicat this time (2021). There was only one bird among the other Terns (*Greater crested, Lesser Crested, Whiskered Terns*). Since it's a dark colored bird, spotting was easy among the white Terns. we could see other Terns harassing it.

Many birders from all over India, came to see this bird and Pulicat become a hotspot for about a month. Noddy is not a regular visitor to the east coast, but due to some adverse weather conditions they drift to the east coast. They are usually seen in the Arabian peninsula region.

Another surprise turned (Terned) up to Pulicat during May 2024, when **Brown Noddy** was sighted by a Chennai birder. This is the first record for Tamilnadu state as this was not seen previously. So I visited Pulicat along with my birding buddies on 28th June 2024 and saw this bird. This time we saw both Lesser as well as *Brown Noddy*.

After I came back from Pulicat, my friend messaged me around 9.30 pm when I was about to go to bed, that there was an odd looking Tern among the group of Terns we saw and it was identified as *Roseate Tern*.

I immediately opened my laptop and started to browse all the clicks and alas I could not see the bird. I cursed myself that I couldn't see the bird. A week after that, I joined another group which went to Pulicat from Bangalore on 6th July 2024.

This time I saw the new comer **Roseate Tern** which has a faint rose wash on belly.

Roseate Tern was seen first in 2017 in Pulicat by some birder. After a gap of seven years, it turned up to Pulicat and I was lucky to see that bird which is # 876 to my count in India.



Roseate Terns

About 12 species of Terns were sighted in Pulicat so far and this *Roseate Tern* was a special one among the Terns.

Reference:

1. Wikipedia
2. [www.pacificbirds.org\(flyways\)](http://www.pacificbirds.org/flyways)
3. www.ebird/india
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SWIETENIA MAHAGONI, THE WEST INDIAN MAHOGANY TREE.

**V. Prabhakaran, IFS., Former Addl. PCCF,
Tamil Nadu Forest Department.**

Foreward

Dear shri Prabhakaran,

“A nice alert report based on field difficulties of tree growers. It is important that forest dept, forest corporations handle such problems through tree help lines. Forestry extension needs to provide such support to farmers. when Agroforestry, plantation forestry and tree certification through various sources to cater to markets is gaining grounds, tree cultivation should be provided the best support. Supplying quality short and long rotation timber seedlings, free of pests and diseases is a challenge in this Era of climate change. Entomologists, pathologists, plantation managers and researchers should work together to find solutions. More than 70% of the country’s timber needs are met by Trees Outside Forests (TOF). We should work on domestication of hitherto unknown timber for economic wellbeing. *Swietenia* spp (mahogany) as made out by the experienced author Mr V. Prabhakaran is a promising species. The TN FD research wing had conducted series of trials across many agroclimatic zones covering magnitude of issues pertaining to the species like provenance trials, progeny trials, escapement trials, appropriate fertilizer doses, water regime etc. The results of such trials are available in the annuals reports of TN research wing.

Pest and diseases management for mahogany tree species is a challenge which needs some focused attention.

I personally feel Namathu Vanam should cover such problems on a bigger scale for wider acceptance and as a solution provider to forestry issues. Kudos to the author.”

Dr. Krishnakumar, IFS.,Retd,
Former HoFF,
Tamil Nadu Forest Department.

About the species

Of late we are seeing a proliferating introduction of this exotic meliaceous tree species in India and more so in Tamil Nadu. True to its name, West Indian mahogany is native to Caribbean islands in Central America and to South Florida in the United States. The other two species in this genus are *Swietenia macrophylla*, commonly called known as Honduran Mahogany or big-leaf mahogany, and *Swietenia humilis*- small -leaf Mahogany. The timber of these species are prized for their beauty, durability and resistance to pest and rot. Therefore, timber is used in ship-building, furniture- making and interior wall panelling etc.

Historical evidence points to the earliest recorded use of *S. mahagoni* was in 1514. This date is carved in the rough-hewn Holy Cross placed in the Basilica Cathedral of Santa Maria La Menor in the Dominican Republic’s capital Santo Domingo. The church construction completed in around 1540, it is the oldest church in the West Indies and its interior ornamented with carved mahogany woodwork is still in almost perfect condition even after five centuries in the tropics. This speaks volumes for the usefulness and durability of this timber species.

The first documented use in Europe of the Caribbean mahogany was in Spain. This timber was used during the European renaissance period for use in the construction and interior decoration of one of the grandest royal residences built during this period, El Escorial. Built between 1563 -1598, by the Spanish King Philip-I (who reigned 1556-1598) El Escorial is largest Renaissance building in the world.

Swietenia spp. can tolerate a wide range of soils and environmental conditions. In its natural range they have been found growing

on alluvial soils, volcanic soils, heavy clays, lateritic soils and soil derived from limestone, granite and other sedimentary, igneous or metamorphic rock formations. However, they perform best on deep, fertile, well-drained soils.

Under our South Indian conditions, research indicates that these species are attacked by pests requiring treatment. I am going to highlight only this issue as it has much economic bearing on commercial cultivation of this species.



Infected mahogany sapling's trunk

Field report

Last month my friend from Karnataka sent me a few photos of affected *Swietenia* spp planted by him in his native place near Dharmasthala in the western Ghats. He had planted 500 seedlings of Mahogany which are about 4 years old. Of these 50 saplings have died due to pest attack. He wanted to know the remedy.



Infected mahogany sapling's trunk

I sent these photos to Dr Krishnakumar IFS, HoFF retd. By his intervention, scientists identified the pests as a shoot borer, *Hypsipyla robusta*. This pest has no biological control and Neem based pesticides cannot control this pest. Hence, they recommended use of diluted Deltamethrine (0.5ml/Li) pesticide. The solution should be poured into the borer holes at weekly interval or 5 days once for three weeks. Very labour intensive and expensive treatment. If this treatment is not given in time secondary infection may occur in bore holes resulting in hollowness in the tree trunk. Mortality rate also will be high.



Infected mahogany sapling's trunk – with probably with Cerambycid larvae.

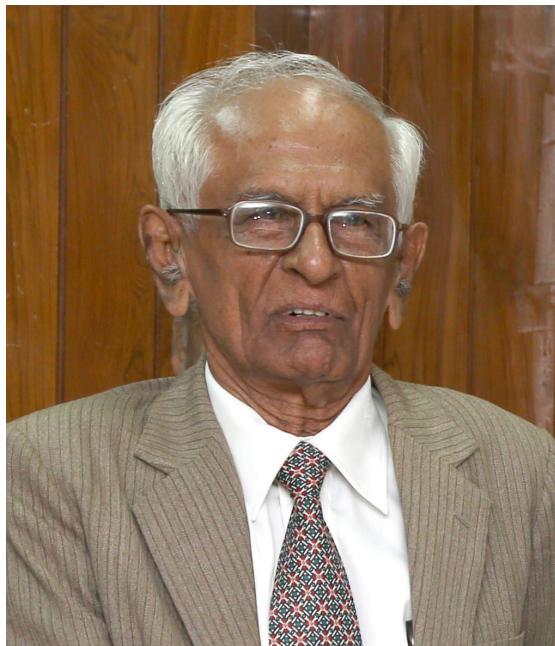
As prophylactic method in the plantations, spray the trunks of the Mahogany saplings/trees with Chlorpyrifos or any equivalent pesticide, 2 or 4ml per litre of water. Inject the same pesticide solution with a syringe into the infected hole and seal with mud.

Periodic inspection of the plantations is the need of the hour and destroy the infected dead trees/ saplings of mahogany to avoid infecting the whole plantation. Be alert and avoid economic loss.



In Memory of Mr. A.M. Mahmood Hussain, IFS, Addl CCF and Eminent Forester & Dr. AJT Johnsingh, Wildlife conservationist

Mr. A.M. MAHMOOD HUSSAIN, IFS, ADDL CCF



Mr. A.M. Mahmood Hussain, IFS, Addl CCF
(1924-2024)

Mr K. Chidambaram IFS, PCCF (Retd)

Mr Md.Husain, IFS Retd, a veteran Forester and Centenarian, breathed his last in Neelangarai, Chennai and departed to Heavenly Abode this morning. My prayers for the noble soul to rest in peace.

Mr K. Subramanian. IFS, PCCF (Maharastra) (Retd)

I am very sad to know the demise of Mohammed Hussain sahib. A father like Office in TN FD, centenarian, gentleman, CCF and Principal SFRC. This day entered Heavenly abode. Heartfelt condolence and prayers for his soul rest in Peace.

Mr M. Harikrishnan, IFS, PCCF, HoFF (Retd)

Deeply grieved to know that my most benevolent boss, Mr A M Mahmood Hussain, is no longer with us. It was he who shaped my practical training after I had finished the first two years in the Indian Forest College. Later, he guided me in Working Plans Circle as well. He was also the Principal, SFRC, for nearly six years of my service there.

We will all also remember him for his contributions to our Directory Publications. And, of course, he remained an active member of the Sylvan club, attending meets and get together on several occasions. We will miss him.

Frail as he was, it is with reluctance that his loss is realised. May his soul rest in peace, Deep condolences.

Mr V. Prabhakaran IFS, APCCF (Retd)

Our deepest condolences to the bereaved family.

May his noble soul rest in peace.

Only once I met him while in service. I met him as a trainee ACF in Hasanur, Sathyamangalam forests. He spoke on sandal root suckers and how it could be encouraged to increase the sandal population.

He reminded the same in appearance and approach to fellow foresters, till the time, he could come to our sylvan meet.

A gentle man and an officer.

Mr Gopinath Ramprasad, AD(Stats)

Mr.Hussain is 100 years young and lead a highly disciplined and active life. He possessed phenomenal memory. Lately in a meeting of TN Retired Forest Professional's Association , he recalled what he did as DFO in Chengalpattu in 1950. Mr. Hussain participated in Freedom Struggle and spent quite a time with Gandiji in his Sabarmathi Ashram. He never missed a meeting if he was invited. We always invited him. He was an inspiration. His students in SFRC must be blessed. I had a fortune of working under him for a short spell when he was State Silviculturist. My humble pranams to him.

Mr V. Mohan, IFS, DCF (Retd)

My Principal of SFRC at entrance to this department. Well knowledged and humble person.

A. Muthusamy, DCF (Retd)

Mr Md. Hussain, IFS, was our Principal of 1974-76 batch of SFRC. My heartfelt condolences. May his soul rest in peace.

Dr. AJT Johnsingh, Wildlife conservationist



Mr. Asir Jawahar Thomas, Wildlife Biologist

1945-2024

Mr D. Arun, IFS, CF (Retd)

May his soul rest in peace. My father after his retirement worked with Mr Md. Hussain, IFS in raising plantation in private lands at Sankarankoil, presently Tenkasi District. For which Mr Md. Hussain IFS, received PRIYADHARSHINI award.

Mr V. Sambasivam, IFS, DCF (Retd)

We have lost a dedicated sincere honest and knowledgeable gentleman. Deep condolence to all family members.

Mr Jeyabalan, IFS, DCF (Retd)

A very sad news. Ultimately, he has reached the Lotus Feet of God. My deepest condolences to the bereaved family. I met him last when he came to SFRI, Kolapakkam for attending Centenary Celebrations of Research Wing. He came along with his son.

Once again, my deepest condolences.

Dr H. Malleshappa, IFS, PCCF, HOD,

Very sad ,great loss to india's Biodiversity as a whole, A man of simple, humble, sincere n very much concern towards wildlife conservation, never hesitant towards expressing his views if anything found not good in conservation aspects.

I had many cherishable memories (especially once we trekked two days in KMTR from Naraikadu to thirukunagudi via netterikal dam,venganaikar dam,vakill padavu.....etc) during 2004-05, A man of great compassionate towards tribals & all other forest dependents, Yah, no doubt he left his footprint in many aspects of Biodiversity conservation... Let's join his family prayers to Rest his soul in peace & give all strength to his family to bear this irreplaceable loss, Om shanthi

Mr V. Prabhakaran IFS, APCCF

Today our dear friend and guide, the eminent wildlife conservationist Dr. AJT John Singh passed away in Bengaluru after a prolonged illness. His obituary sent by his son follows. India's bravest green warrior and staunch defender of Earth's flora and fauna passed away to his final home. We can't hear his voice anymore but we can hear him in the chirp of every bird, roar of every tiger and trumpet of every Tusker. Generous beyond comparison and teacher beyond equal, we the Johnsingh family know that he has left behind legacy difficult to match in the world of conservation. We thank you for your prayers and support and for having made his life richer. We are indebted to you for all the love you have given him, in his wonderful life. We will mourn him, but we also celebrate his life as one well lived. On his and our behalf we extend our sincere thanks for having been with us in thick and thin. May he rest in peace with God our father in heaven. Remember him and us in your prayer

Mr A. Venkatesh IFS, APCCF

Dr AJT John Singh a well-known conservationist and good hearted person. Pray for RIP

Mr D. Arun IFS, CF

A great wild life scientist who cardinally associated with all and contributed lot for wildlife conservation. My deepest condolences.

Mr L. Magilan, DCF

May his soul rest in peace, he was my mentor (lecturer) in my wildlife management training in Wildlife Institute of India, Dehradun

Dr V. Irulandi, IFS, APCCF

Dr. John Singh was our Instructor for Zoology Subject. He was a very active person. Sad to know about his demise. Deep Condolences to his all family members.

Mr K. Subramanian, IFS, PCCF(Maharastra)

We have lost one of eminent wildlife Scientists and conservationists in the demise of Dr. JOHN SINGH. He took us Shiwalik forests near Dehradun to sight Dhole= Wild dogs when we attended one week wildlife course in WLI Dehradun. Heartfelt condolence to his family and friends. Pray his soul rest in peace in Heaven.

Mr K. Sivagnanam, ACF

Dr AJT John Singh was my teacher in my degree course in Ayyanadar College, sivakasi. Very very sad news. Let the soul rest in peace

Mr T.P. Raghunath, IFS, PCCF & CWLW

In memory and recognition of the contribution to Indian Wildlife by Dr. A.J.T. Johnsingh, an Indian eminent wildlife expert and who belongs to Tamil Nadu, a citation and a cash award of Rs. 25 lakhs will be given during the Wildlife Week Celebrations in the first week of October every year, as 'Dr. AJT Johnsingh Wildlife Conservation Award', instituted by the Tamil Nadu Forest and Climate Change Department.



DAY AND NIGHT RAID FOR SANDALWOOD.

V.Sundararaju. IFS, DCF (Retd)

Salem Forest Circle:

During 1994, the erstwhile Salem Forest Circle was having jurisdiction over Salem, Erode, Athur, Harur and Kallakurichi Territorial Forest Divisions. Presently Erode Division has become a Circle, Harur and Kallakurichi Divisions have been attached to Dharmapuri and Villupuram Forest Circles respectively.

Sandal wood smuggling, a major protection problem:

I was posted as Assistant Conservator of Forest (A.C.F), Forest protection Squad (F.P.S), Salem in 1994. Sandalwood smuggling was a major protection problem during that period of time. Though major portion of the wood has been removed, still there was illegal market in Kerala State for the unauthorised sandalwood oil factories. As a result, lot of illegal movements of the wood were taking place from Chitheri hills of Harur Division and Bothamalai hills of Salem Division. Some of the tribals from Chitheri, Bothamalai, Kolli hills and Yercaud were involved in smuggling.

Sandal wood smuggling by Yercaud tribals:

The tribals from Yercaud used to carry sandalwood by head load from Chitheri hills upto Yercaud to a distance of nearly 50 kilometers. There are two tribal villages namely Kondayanur and Sonappadi in Yercaud hills. Some of the people of these villages were known for smuggling. The recovery of 7 metric tonnes of sandalwood from these villages narrated in another chapter will be quite interesting.

Poor people involved in smuggling:

Mainly people living below the poverty line of the villages located along the foot hills were involved in this illegal activity by the sandalwood mafia. The smugglers used to carry a minimum of 25 kilos of sandalwood by head load. Sometimes the tribals would be supplying sandalwood at the foothills to the smugglers from other villages

Sandal wood kept ready for smuggling:

Sometime in the month of March 1995, we received information about smuggling of sandalwood in Rasipuram Range jurisdiction. The informant was a reliable fellow. In Protection Squad we used to have informants to pass on information about illegal movements of sandalwood. The person had informed that in a hamlet called Thekkalpatti near Mangalapuram, a major village, located at the foothill of Bothamalai hills, sandalwood was kept ready for transport. First the information was received by a Forest Guard of the Squad. On receipt of the message, discreet enquiries were made through a Forester and confirmed that it was reliable.



FPS Officials with seizures and accused in a different case.

Planned to raid the village:

Then, the staff members of F.P.S were informed confidentially, requesting them to assemble in my quarters. If we assemble and proceed from our office, someone may watch our movement and inform the smugglers. At times such incidences had taken place. So, in order to divert the attention of such unscrupulous elements, our staff members used to assemble in my quarters and proceed as if it was some routine inspection towards Yercaud side. This time also in the same way, our staff assembled around 8pm in my residence. After having tea, the journey commenced. The Forest Protection squad party consisted of one ACF (Assistant Conservator of Forest), 2 Forest Range Officers, 2 Foresters and 4 Forest Guards). Generally, one Guard would be left in the office to receive any information and pass on to us in case of emergency.

Got a person from the hamlet to assist us:

By that time our vehicle reached the hamlet, it was around 10 pm. Forester Mr Ramasundaram (Subsequently he retired as Forest Range Officer) suggested that it would be better to take some known person from the hamlet while going for search. It appeared to be a good idea. The job was entrusted to Mr Palraj, Forest Guard and within 10 minutes he brought a person of about 40 years old namely Mr Manikkam to help us.

Formed two groups:

Along with the person, our vehicle reached the northern side of the hamlet. There was a stream flowing on the eastern side of the road. Our jeep was parked there. It was decided to form two groups and search for the wood in the nearby sugarcane field beyond the stream. The jeep was parked on the roadside along with the Driver. The Driver was by name Mr Thangavel, a very sincere person hailing from Marthandam of Kanyakumari district. I, one Forest Range officer by name Mr M.S. Ramasamy and one Forester by name Mr Kalaimani were in one group. The other group was headed by one Forester Mr Ramasundaram , 3 Forest Guards namely M/S Palraj, Periasamy and Murugan.

Groped through the darkness:

Forest Protection Squad, Salem was supplied with 4 rifles. Each group was having a

rifle this time in addition to the sticks and torch lights. The two teams moved towards the sugarcane field by crossing the stream. Though torch lights were carried, they would not be used. Only in case of extreme necessity they would be used. In spite of the darkness We were able to manage in the available natural night's star light.

Hurdles faced while searching in the sugarcane field:

The moment our groups entered inside the field, search for the wood started. The other group went a little inside to the other end of the sugarcane field. When one moved inside the sugarcane field, he had to be very careful. The leaves would be causing some kind of irritation when they came in contact with our body. It would be slushy inside the field. Only when it was required the torchlight would be used. Snakes and other insects also might be there. So, one must move step by step very cautiously. In some places the landowners might have erected illegal electrical wire fencing all around the field. Unknowingly if we happened to touch the wire, it would be fatal. One had to bear all these facts in mind before venturing into this kind of risky task.

Moment of panic:

The search went on for about 40 to 50 minutes. Neither any wood nor any symptom could be noticed. By that time all of us became tired. Suddenly, breaking the silence of the night, the voice of a large gathering of people could be heard distantly. Every one became alert. When our ears were sharpened, it could be realized that the voice was coming from the road side where our jeep had been parked. Knowingly or unknowingly, a feeling of panic gripped me. Because in Forest Protection squad if everything went on well it was all right. If any problem cropped up, only the Leader of the Party, i.e. the ACF would become responsible.

Morale boosted up:

The FRO and the Forester were asked to move quickly. Our group came out of the sugarcane field and started heading towards the road. After walking for about 15 minutes, we heard the voice of too many people. While crossing the stream we could see a large gathering of about 100 people around the jeep. Frankly speaking, by seeing that huge crowd for a moment, a ripple of fear passed through me. By the next second I made up my mind and got the weapon from the Forester. Really, at that very moment, my morale was boosted up, despite the fact that we were not empowered to use the weapon outside the reserved forest.

Studied the mass psychology:

When we were close to the crowd, I raised my voice and asked "What is the matter? Why are you making noise?"

"You have arrested a person from our village and taken away forcibly. How can you do it? He is an innocent person" they said in chorus.

The mass psychology of the mob could be studied easily. A quick plan was made in my mind to talk to them very tactfully.

Trust built up:

"Is this the matter? You don't worry. We have not arrested anybody from your village and he is not taken anywhere. Wait for some time. He has been with us just to help us only" I said very coolly.

But the villagers were not ready to believe my words. Then I started talking sentimentally touching their heart. “We are also from village with agricultural background. Our way of dealing with the people will be very polite. If anyone taken by us is found to be innocent, it will be seen that the person concerned is taken care of, by giving good food and returned to his home safely along with one staff. But in this case, no one has been arrested. A person known to the Guard has been taken only to help us. You can trust us”.

Tried to convince the public:

Then they started arguing “Sir, sometime back, a few of your department staff came from Rasipuram Range and took one person, saying that it was only for enquiry. But, finally he was remanded into custody. Then our sheep and chickens had to be sold to get him out on bail. That too after many days only he could come out. The Forest Department Officials tortured us badly.”

“OK, that is a different issue. We are not like others. We have more compassion, mercy and pity, especially for the people from rural area. In such kind of occasion as you cited, generally I will be appointed to investigate and based on my report there will be action against the erring subordinates if they had done something wrong. Our responsibility is much more than others. Now the days are gone. You are having every right to question the concerned authorities. In such cases, if the person involved is really innocent, very well, a few of you can meet the officer concerned and represent. Definitely justice will be rendered,” I said convincingly.

Pleaded for apology:

By that time the other group of our party joined us along with the person of the village Mr Manikkam, who was taken by us for help.

By pointing at the person I told them “You can enquire Mr Manikkam now and find out what happened”.

Studying the situation within no time, Mr Manikkam started shouting at those people and everybody in the crowd felt ashamed of their behaviour after knowing the truth. There was complete silence. By breaking the silence, first a few of them approached the F.R.O and spoke to him in low voice. After a brief discussion among themselves, with great hesitation they approached me and started pleading for apology.

Truth known to them:

When they spoke to me very politely by realizing their mistake, I felt that it was right on my part to forget and forgive them. I said “OK. No problem. At least now you have come to know the truth. You can take your person with you. But if there is any information about sandalwood or any forest crime, you must inform us immediately”.

Offered juice and bade farewell:

In the mean time somebody from the crowd brought sugarcane juice and all of them jointly requested us to take juice. Someone cut a few palm leaves from the nearby young palm tree, made bowls out of that and offered us juice. With great relief and happiness we drank that juice. The people were very happy. Then we started our journey towards Salem saying that we might come again if the wood was kept somewhere in the vicinity of the village. The villagers bade farewell to our party.

Planned for night raid:

The next day the informant came to our office and reiterated that sandalwood was kept somewhere in the vicinity of the hamlet for transport. Since we had already raided that area, the smugglers had not taken any immediate step for removal. If we searched for the wood, definitely it could be recovered. The informant was a trustworthy fellow. So, we planned to raid the village during late night.

Suspected hiding of sandal wood inside the well under water:

This time our jeep was taken through a different route. By that time, we were nearing the suspected place, in a nearby well the motor pump was on. But by seeing our jeep, two fellows started running from the pump room. We developed suspicion. Why the fellows should run by seeing us? We started searching for the produce in and around the pump room thoroughly; but could not find any symptom. While we were nearing the well, the motor was on. But by seeing us, the motor was switched off. Something struck my mind. I discussed with my staff about the possibility of hiding the wood inside the well under water. Yes, my staff agreed with my view that they might have hidden wood under water and there are possibilities for that.

Jumped into action:

Immediately our staff jumped into action. The tallest among the staff was the Forest Guard Mr Periasamy. They got a thick rope from the motor room and tied it around the waist of the Guard. Slowly he was allowed to get into the well by holding the rope tightly by three others. Of course, now we used our torch lights. There was water in the well. Since the motor was stopped just then, we could assess for how long the motor had been under operation by seeing the dripping water from the inner walls of the well. With the help of torch light we could not see anything under the water.

Sandal wood seized from the well:

The Guard was an expert swimmer. He went dived deep under the water in search of the wood. After a few attempts he got the catch. There were sandalwood bundles hidden under the water. With great efforts we recovered 20 bundles of sandalwood one by one.

The jeep was sent to the village to bring a few responsible persons. In their presence a ‘Sthala Mahazar’ (Sthala Mahazar is a statement prepared while seizing any forest produce outside the reserved forest by keeping some of the nearby villagers as witness. The Mahazar will be written generally by Forest Range Officer or Forester and the signatures of the persons will be obtained as witness) was prepared and the sandalwood bundles were seized. After following the due formalities, the sandalwood bundles were brought to the Squad Office at Salem. More Sandal wood recovered on the third day:

. To our surprise, that evening, our informant came with a message that sandal wood was still there to be recovered. We planned to visit the area that night.

Our jeep was stopped about 2 kilometres away from the suspected spot. We started walking quietly with weapons, sticks and torch lights. The torch lights were not on. After reaching the spot, our staff started searching for the wood. There was a young paddy field nursery not yet ready for transplanting. But to a size of about 5'x6' empty patch in the nursery, where the paddy seedlings had been removed recently. I became suspicious, with my practical agriculture experience, as such patch cannot be found in the paddy

nursery. Convinced something was not right, I directed one of our Guards to dig in to that particular site. When he attempted with stick and iron rod, he said confidently that there was something stored underneath. When that area was dug out by using pick-axe and crowbar, 20 bundles of sandal wood were recovered.

After preparing the Sthala Mahazar in the presence of local villagers,, the wood was taken to Salem after following the due formalities.

Some more wood to be recovered:

Our party rested during day time and returned to the office in the evening. After some time, our informant appeared again and emphasized that there was still some more wood to be recovered. Every one of our party was surprised to hear this message. He was a trustworthy person. Since everyone was so tired, it was planned to visit the area the next day during day time. Next day being Tuesday, after attending to some of the pending office works, our party started marching towards the suspected site after lunch. It became 4 pm by that time we reached the place. Our staff members were very vigorous. Our search for the wood was carried out in each and every field. By hearing the recovery of sandal wood made by us for the past two days, the land owners and the villagers also joined us in the operation. Up to 5.30 pm we could not get anything.

Sandal wood recovered on the fourth day:

There was an abandoned well in a nearby land, where there was no cultivation. The water inside the well was shallow and muddy. It was not used for quite a long time. Forester, Mr Kalaimani looked into the well very keenly for some time. By seeing some object, his face became brightened. He called me and showed that object which was lying inside the well. On the projected portion of the wall inside the well, a small chip of sandal wood of a in the size of a tea spoon was noticed. It was the strong clue. The tallest man of our group Mr Periasamy, Forest Guard was allowed to get into the well with the help of a thick rope. Within another one hour, 21 bundles of sandal wood could be recovered hidden under the water.

Sandal wood brought to Salem:

By hearing the news that large quantity of sandal wood had been recovered from the abandoned well, the owners of the well, probably a group of people belong to the oppressed community came running to us and pleaded their innocence. The very faces of the people, their behaviour and talk proved that they were innocent beyond doubt. Sthala mahazar was prepared in their presence. The people were afraid of even signing the mahazar. Of course after getting convinced by my words, they wholeheartedly signed the mahazar. After following the due formalities the sandal wood was brought to Salem.

Gained the confidence of the locals to get the work done easily:

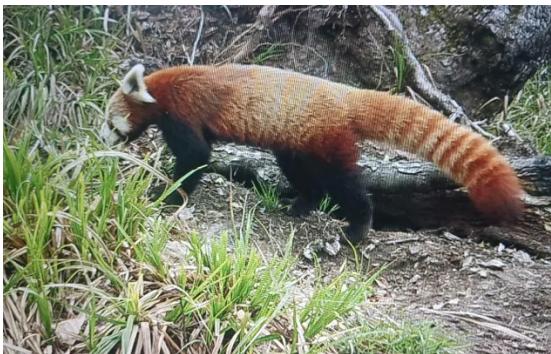
Our thorough investigation and the support rendered by the local people helped us to book the culprits with great difficulty.

Without the cooperation and the support of the local people, nothing can be achieved. So it is always better to take the local people into confidence for getting any work done easily.



NEWS IN A NUTSHELL

RED PANDA SIGHTED IN EWS



SINGCHUNG, 13 May: A camera trap installed in the Eaglenest Wildlife Sanctuary (EWS) in Singchung (Arunachal Pradesh) subdivision in West Kameng district captured a red panda recently.

The camera trap was installed by the Wildlife Institute of India, in collaboration with the EWS, in March this year.

Range Forest Officer (RFO) Yachang Kani said, "This is a significant sighting of a highly endangered species. The sighting of the red panda indicates that the EWS is an ideal habitat for it."

While this is not the first time that a red panda has been sighted, the species is rare and highly endangered, and we must protect their habitats," he said.

Scientifically known as *Ailurus fulgens*, this elusive and endangered mammal captured on camera provides conclusive evidence that the EWS is an ideal habitat for these magnificent creatures.

The red panda, also known as 'firefox' for its striking red and white fur, is a highly endangered species native to the eastern Himalayas, with a global population of

less than 10,000 individuals. As a result, conservation efforts are crucial to protect these animals and their habitats.

The EWS is a prime example of a protected area that provides a safe haven for the red panda and other endangered species. The sanctuary's lush forest, rich in biodiversity, offers an ideal environment for the red panda to thrive.

"This discovery reinforces our commitment to conservation and inspires us to continue working tirelessly to protect these incredible animals and their homes," the RFO said.

Courtesy: The Arunachal Times
(13.05.2024)



300 MONITOR LIZARD SKINS SEIZED IN TN



In an operation across Tamil Nadu, wildlife officials in last month seized from different districts more than 300 monitor lizard skins meant for making the percussion instrument kanjira.

State forest secretary Supriya Sahu said following a tip-off, a team led by Chennai District Forest Officer V. A. Saravanan

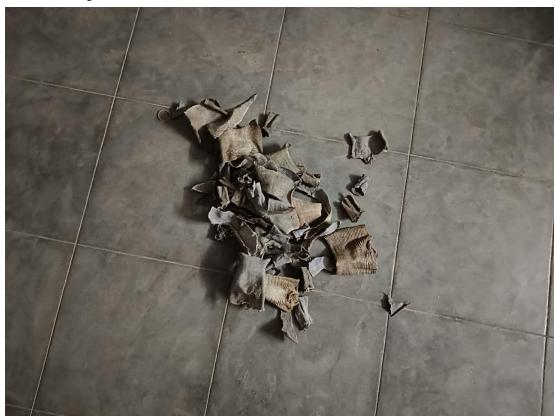
raided shops selling musical instruments. The owners informed officials about the source of the monitor lizard skins.



We detained a couple of people involved in trapping and skinning monitor lizards. They sold the skins to musical instrument shops, which made kanjiras. "Instruments made from the skin of a monitor lizard are sold for throwaway 1,800 per instrument. There have been some efforts to use artificial fibre to make kanjiras."



As per provisions of the Act, illegal possession and trade of any scheduled species, or parts thereof, is punishable offence that attracts imprisonment for up to seven years.



Courtesy: Times of India 03.05.2024



IMPORTANT DAYS

Foresters Martyrs day	11 Sep 2024
World Ozone day	16 Sep 2024
World Bamboo day	18 Sep 2024
International coastal clearing day	19 Sep 2024
Biosphere day	21 Sep 2024
World wild life week	Oct 1-7 2024
National Resource day	5 Oct 2024

GIANT WHALE RETURNS AFTER DISAPPEARING FOR OVER 100 YEARS

Sei whales, known for their massive size and distinctive blue-grey coloration, breed every two to three years, which has contributed to the slow but steady replenishment.



A Sei whale is pictured after scientists identified the endangered species on Argentina's Patagonia coast for a first time since 1929. (Photo: Reuters)

"In this case, it took over 80 years for them to have appreciable numbers for people to realize they were there."

Sei whales, known for their massive size and distinctive blue-grey coloration, breed every two to three years, which has contributed to the slow but steady replenishment of their population over the past century.

Their recent sightings off the Patagonian coast demonstrate the effectiveness of conservation efforts when given sufficient time and commitment.

Last month, Coscarella's team worked to fit some sei whales with satellite trackers to map their migration patterns, with funding from the National Geographic's Pristine Seas project.

They captured remarkable footage of the whales from boats, drones, and underwater, documenting their return to these once-familiar waters. "We can consider this a success of conservation on a global scale," Coscarella stated, crediting the global moratorium on whaling as critical to the species' recovery.

However, he warned that any country withdrawing from this agreement could jeopardize the hard-won progress made in reviving sei whale populations.

"After hunting that reduced the (sei whales) population to a minimum, almost 100 years later, this population started to bounce back and now they come to the same places they used to before they had been hunted," Coscarella added.

The return of sei whales to the Patagonian coast serves as a powerful reminder of nature's resilience and the importance of sustained conservation efforts in preserving Earth's biodiversity.

Their remarkable comeback after a century of absence is a beacon of hope for other endangered species. Published By:

Courtesy: INDIA TODAY Published by Kumar Tripathi, 13.05.2024



Five new wild mushroom species discovered in Indian Himalaya

A team of researchers has discovered five new species of mushrooms and reported sighting two additional species for the first time in the region¹.

The findings came from an extensive macrofungal exploration across different parts of the Himalaya in Uttarakhand and Meghalaya. The team, including scientists from Botanical Survey of India and H.N.B. Garhwal University in Uttarakhand, conducted morphological studies and multigene molecular phylogeny to identify the previously unknown species of wild mushrooms.



Phylloporus himalayanus, one of the five new species of mushrooms discovered from Uttarakhand. Credit: Das, K. et al/Sci. Rep. (2024)

The newly discovered species are Leccinellum bothii, Phylloporus himalayanus, Phylloporus smithii, Porphyrellus uttarakhanda, and Retiboletus pseudoater. The researchers also report the first-time sightings of Leccinellum sinoaurantiacum and Xerocomus rugosellus in India.

The Indian Himalaya, home to a rich diversity of wild mushrooms, remains poorly studied. The research collected a large number of boletoid mushrooms (a type of mushroom in the Boletaceae family) and analysed them using multigene molecular phylogeny, which provides a comprehensive understanding of the species' evolutionary relationships.

doi: <https://doi.org/10.1038/d44151-024-00067-x>

[This research highlight was in-part generated using artificial intelligence (Chat GPT-4) and edited by a staff member of Nature India. 11.05.2024]



17 MONITOR LIZARDS BROUGHT TO LIFE IN PLASTIC BOX “ARTIFICIAL INCUBATOR”



Mumbai, May 19 (PTI) Seventeen monitor lizards were born in a controlled environment in a plastic container in the care of the forest department here, an official said on Sunday.

The reptiles hatched on Saturday from a clutch of 44 eggs laid by a monitor lizard, which the Mumbai range of the forest department rescued in October last year, the official said.

The department has handed over the reptile and the eggs to RAWW (Resqink Association for Wildlife Welfare) for care and rehabilitation, he said.

The reptile was a little weak after laying eggs and was under observation for a week before being released into the wild in coordination with the forest department, said Pawan Sharma, founder and president of RAWW and the honorary wildlife warden with the forest department.

The clutch of 44 eggs was kept in a controlled environment in a plastic container for incubation, said Chinmay Joshi, zoologist and secretary of RAWW.

Some eggs got damaged due to the heat, and some were infertile, he said.

After 217 days, 17 young ones successfully hatched on Saturday. They will be examined and released into their natural habitat, Joshi said.

Courtesy: THE WEEK (19.05.2024)



Emirates flight strikes flock of flamingos in Mumbai's Ghatkopar, kills 40; sparks wildlife protection concerns



An Emirates flight flying over the Laxmi Nagar area of Panthnagar in Mumbai's Ghatkopar on Monday night struck a flock of flamingos, resulting in the deaths of at least 40 birds. The Emirates flight EK 508 from Dubai-Mumbai reported a bird hit upon arrival at Mumbai airport at 9.18 pm. Despite the hit, the flight which suffered damages, landed safely, as per the Hindustan Times report.

An airport source confirmed the bird hit to HT, stating that the incident was reported immediately upon the flight's arrival. Additional Chief Conservator of Forests (Mangrove Protection Cell), SY Rama Rao, reported the discovery of 36 flamingo bodies in the area and announced a search to determine if more birds were affected.

The airport authorities have confirmed to us about the bird strike. This has happened closer to Laxmi Nagar (northern end of Ghatkopar East)," said Deepak Khade, Deputy Conservator of the Mangrove Protection Cell, as quoted by HT.

Confirming the incident, Emirates spokesperson said, "Emirates can confirm that EK508 from Dubai to Mumbai on 20 May was involved in a bird strike incident upon landing. The aircraft landed safely and all passengers and crew disembarked without injury, however sadly a number of flamingos were lost and Emirates is cooperating with the authorities on the matter."

"The aircraft was also damaged in the incident and, as a result, the return flight EK509 scheduled to depart to Dubai on 20 May was cancelled. All passengers and crew were accommodated overnight and a replacement aircraft is being arranged for all passengers, and is scheduled to depart Mumbai on 21 May at 21:00 local time. Emirates apologises for any inconvenience caused. The safety of our passengers and crew is of the utmost importance and will not be compromised," the spokesperson said.

Prashant Bahadure, Range Forest Officer of the Mangrove Protection Cell, added, “I went to the airport, but they didn’t allow me entry. The airport authorities have told us these flamingos were hit by an Emirates flight. We got a call from the local residents, and the incident may have happened between 8:40 pm and 8:50 pm. Our team was on the spot at 9:15 pm,” reported HT.

Environmental activist D Stalin from NGO Vanshakti suggested that the new power lines through the sanctuary area might be causing disorientation among the birds, leading to the incident.

“What caused the birds to fly into the aeroplane, etc., are being investigated. My theory is the new power lines through the sanctuary area are causing disorientation to the birds. It should have never been permitted. Alternate routes were many. While giving permissions for power lines (earlier, it was not allowed inside sanctuaries), the wildlife board meekly surrendered to the power company. The Thane Creek Wildlife Sanctuary was bulldozed and towers erected,” Stalin was quoted by HT.

Stalin also speculated about a potential indirect connection to the Navi Mumbai airport project. “Wetlands in the NRI complex area and TS Chanakya lakes are home to flamingo flocks. Since last month, efforts have been made to disturb the birds there and get the water bodies to be brought under construction. If someone or some people had chased the birds out at night, the flocks might have attempted to fly towards Thane Creek and, in the process, met with the accident,” he said, as per the report.

Source: MINT, 21 May 2024, 09:30 PM IST



FEWER OLIVE RIDLEY HATCHLINGS RELEASED INTO SEA THIS YEAR



Newly hatched Olive Ridley turtles

Chennai wild life officials in Chennai on Wednesday release the last batch of Olive Ridley sea turtle hatchlings into the sea from hatcheries set up at Beasant Nagar, Neelankarai and Kovalam as well as from the one at Pulicat in Tiruvallur District amid concern about the dwindling numbers.

Courtesy: Times of India 16.05.2024



New mangrove forest comes up at Kudikadu under Green Tamil Nadu Mission



The Tamil Nadu Forest Department has planted around 37,500 mangrove propagules over an extent of 25 hectares at Kudikadu village in Cuddalore district under the Green Tamil Nadu Mission.

To rehabilitate coastal habitats, the State government is in the process of restoring degraded mangrove cover and adding new plantations to enhance the mangrove cover to an extent of about 30 sq.km. by 2030 in the State.

For the first time, away from the existing mangrove area, the potential of Kudikadu, in an area adjacent to Cuddalore town, was identified as favourable for mangrove plantation. Subsequently, with the concurrence of the Revenue Department, the Green Tamil Nadu Mission brought 25 ha under mangrove restoration by carrying out large scale fishbone methodology, according to officials of the Forest Department.

For the first time, away from the existing mangrove area, the potential of Kudikadu, in an area adjacent to Cuddalore town, was identified as favourable for mangrove plantation. Subsequently, with the concurrence of the Revenue Department, the Green Tamil Nadu Mission brought 25 ha under mangrove restoration by carrying out large scale fishbone methodology, according to officials of the Forest Department.

Propagules of *Rhizophora* and *Avicennia* were planted during October-November 2023, having the potential to conserve biodiversity, enrich wildlife, become a rich breeding ground for marine species, and enhance livelihood for the local communities.

The Rehabilitation of Coastal Habitats scheme is being implemented for another three years from 2023-24 to 2025-26 covering ten districts. An official said about 4.4 lakh mangrove propagules have been planted in an extent of 195 ha in the districts of Chengalpattu, Cuddalore, Mayiladuthurai, Thiruvarur, Thanjavur, Pudukkottai, Ramanathapuram and Thoothukudi. Tamil Nadu Forest Department has restored degraded mangrove habitats to an extent of 375 ha during the year 2023-24.

Courtesy: The Hindu, June 20.2024

International Tiger Day 2024: History, significance, quotes and more



Tiger Day 2024: The tiger population is declining significantly. This day aims to establish a framework to protect the natural habitat of tigers, raise public awareness and support tiger conservation

Every year, the International Tiger Day is celebrated on July 29 to raise awareness about the conservation of tigers, focusing on protecting the natural habitats of the endangered big cat. It is vital in increasing online engagement and interest in tiger-related information. Many species of tigers, such as the white, Royal Bengal, and Siberian, each rule their respective habitats with pride and elegance.

These animals face numerous threats, including illegal wildlife trade, climate change, and habitat loss, as they are witnessing a rapid drop in their population. The day serves as a reminder of the urgent need to address such issues and take action to ensure these iconic big cats continue to thrive and flourish.

International Tiger Day 2024: Date and History

International Tiger Day is celebrated on July 29 to spread awareness about the conservation of tigers and urgent threats they face like habitat loss, human-wildlife conflict and poaching.

Nowadays, the governments across the world are making efforts to protect wildlife, expanding protected areas, promoting sustainable livelihoods for local communities and raising awareness about tiger conservation.

International Tiger Day 2024: Significance and History

The population of tigers is declining rapidly, hence tiger conservation becomes essential highlighting threats such as habitat destruction and poaching.

There are multiple threats that tigers have to face such as habitat loss due to deforestation, poaching for their parts, and conflicts with humans. International Tiger Day was declared during the Saint Petersburg Tiger Summit that was held in 2010.

This conference was held to address the rapid decline in the tiger population and to develop strategies for their conservation. At that time, the conference set the goal to double the wildlife population by 2022 with the help of immediate and coordinated actions.

Several programs and events were organised across the world to tell the urgency of conservation efforts to protect these animals.

Courtesy: Business Standard, July 30.2024



ASSAM: FIRST PHOTOGRAPHIC EVIDENCE OF MAINLAND SEROW RECORDED IN RAIMONA NATIONAL PARK



The Assam Forest Department and conservationists have captured the first photographic evidence of the vulnerable Mainland Serow in Raimona National Park.

GUWAHATI: In groundbreaking discovery for biodiversity conservation officials from Assam Forest Department and conservationists have recorded the first photographic proof of Mainland Serow in newly declared Raimona National Park in Assam. This vulnerable mammal species. Listed by the International Union for Conservation of Nature (IUCN) was captured on camera during two separate events near Ganda Bajrum Anti-poaching camp in park's western range.

“The discovery of Mainland Serow in Raimona National Park is excellent news for biodiversity conservation. We are thrilled by this finding. Our goal is to conserve this species and other wildlife extensively in national park,” said Bhanu Sinha. Divisional Forest Officer of Kachugaon Forest Division.

Mainland Serow population is widely distributed in neighboring Phibsoo Wildlife Sanctuary and Royal Manas National Park of Bhutan potentially contributing to Raimona National Park’s population recovery.

We extend our warmest thanks to National Park Authority for their collaborative efforts. These efforts led to discovery of this beautiful species. Raimona National Park has wealth of wildlife. Finding this species is positive news for the conservation world. Dr. M. Firoz Ahmed senior scientist with Aaranyak, stated this.

Dr. Dipankar Lahkar is a senior conservationist with Aaranyak. He explained “The Mainland Serow (*Capricornis sumatraensis thar*) is found in various habitats. These habitats extend from the Himalayas on Indian subcontinent. They reach southern China, mainland southeastern Asia and Sumatra. Populations of the species are fragmented isolated. They are rapidly declining due to poaching, habitat destruction and habitat loss. The lack of reliable data on this species’ abundance and distribution makes it difficult. Implementing effective conservation actions to ensure their long-term survival is challenging.”

Occasional poaching for bushmeat and habitat alteration due to logging during ethnopolitical violence are primary conservation concerns for Raimona National Park. With the government now protecting park. Future conservation efforts should focus on securing and recovering species’ population. Restoring degraded habitats is also crucial.

Assam government declared area a national park on June 8 2021. After nearly three decades of ethnopolitical violence, Bodoland Territorial Council (BTR) was established in 2020. This fueled conservation efforts. Mainland Serow was recorded on December 29 2020, at 9:12 AM. And again at 1:46 PM respectively, at an elevation of 96 meters near the Ganda Bajrum Anti-poaching camp. This is first photographic evidence of the Mainland Serow in the park and likely the lowest elevation record. From the Indian subcontinent.

Courtesy: Sentinel Digital Desk, 27 Jun 2024

PHOTOGRAPHER CAPTURES RARE SIGHT OF ELEPHANTS SWIMMING ACROSS BRAHMAPUTRA



Elephants swimming across Brahmaputra

The video, filmed at Nimati Ghat, one of the main river ports in Assam, shows the elephants wading through the deep Brahmaputra river.

Elephants are often seen as majestic land creatures, but a recent video from Assam reveals their impressive swimming skills. In the breathtaking drone footage captured by photographer Sachin Bharali, a herd of elephants is seen swimming across the deep waters of the Brahmaputra River in Assam.

The video, filmed at Nimati Ghat, one of the main river ports in Assam, shows the elephants wading through the deep river with only the top portion of their bodies visible.

Courtesy: India Today, 23 June 2024



Tamil Nadu Biodiversity Conservation and Greening Project for Climate Change Response (TBGPCCR)

TBGPCCR - An Overview:

The Tamil Nadu Biodiversity Conservation and Greening Project for Climate Change Response (TBGPCCR) is being implemented at a cost of Rs.920.52 crores with financial support from JICA as a continuation of Tamil Nadu Biodiversity Conservation and Greening Project (TBGP) with interventions and up-scaling of project components.

Objective:

To mitigate and adapt to climate change and improve ecosystem by undertaking biodiversity conservation, human wildlife conflict mitigation measures, promoting supply chain development, livelihood improvement activities and management capacity development, thereby contributing to sustainable socio-economic development in Tamil Nadu.

2022-23 to 2029-30

Sl. No.	Component	Outlay (in crores)
1.	Ecosystem based Climate Change Measures	305.18
2.	Human Wildlife Conflict Measures	35.27
3.	Promoting Supply Chain Development	7.86
4.	Livelihood Improvement Activities	86.85
5.	Management Capacity Development	309.96
6.	Others (Consultancy, Physical Contingency, Front End Fee, Administration Cost, Interest during Construction, etc.)	175.39
	Total	920.52