Volume 1, Issue 4

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TAMILNADU FOREST DEPARTMENT

PROJECT NILGIRI TAHR

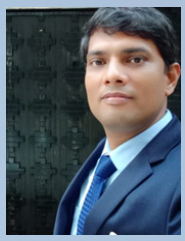
வரையாடு
VARAIYAADU

THE OFFICIAL NEWSLETTER OF PROJECT NILGIRI TAHR

SAVE OUR STATE ANIMAL
OUR NILGIRI TAHR, OUR PRIDE

DIRECTOR'S MESSAGE

I hope this new year brings happiness, peace and good health to you and your loved ones. It gives me colossal enjoyment to present with the edition of the "Varaiyaadu" newsletter which accentuate the astounding progress of Project Nilgiri Tahr, an iconic project aiming at southern mountain endemic ungulate "The Nilgiri Tahr". In this edition, we have brought out some of crucial aspect like Wheel on message inauguration at 20 feet Nilgiri Tahr statue for public awareness at Tirunelveli, the connectivity study in Peyannar Varaiyaattu mottai in Sivagiri range, the endemic species Dendrobium anamalaiyanam, behavioural study of female tahr and kid, spotlight on Nilgiri martin at Mukurthi National Park is congenial & delightful to read. Also, pictorial postal card for creating awareness among public & students is another feather added into the newsletter. I encourage all our readers, stakeholders and supporters to share valuable suggestions & innovative solution for the conservation of the exclusive mountain ungulates, to aid our future goal.



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OUR VISION

Our vision is to be a hub for passionate individuals, conservationists, and communities united in their commitment to safeguard the Nilgiri Tahr and its unique ecosystem.

OUR MISSION

Our mission is to excel in the conservation and protection of Nilgiri tahr, an iconic species endemic to the Western Ghats


DEC 2024

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தமிழக அரசின் சிறப்பு திட்டமான நீலகிரி வரையாடு திட்டம் மாண்புமிகு முதலமைச்சர் திரு. மு.க. ஸ்டாலின் அவர்களால் அக்டோபர் 12, 2023 -ல் தலைமை செயலகத்தில் தொடங்கி வைக்கப்பட்டது. இத்திட்டமானது சுமார் 25.14 கோடி மதிப்பீட்டில் 9 முக்கிய கூறுகளுடன் நடைமுறைப்படுத்தபடுகிறது. இத்திட்டத்தின் முக்கிய அம்சமாக வருடாந்திர ஒருங்கிணைந்த நீலகிரி வரையாடு கணக்கெடுப்பு முதன் முறையாக தமிழ்நாடு மற்றும் கேரள வனத்துறையுடன் இணைந்து செயல்படுத்தப்பட்டது. இக்கணக்கெடுப்பு நீலகிரி வரையாடுகள் வாழும் பகுதியை 140 தொகுதிகளாக பிரித்து, 13 வனக்கோட்டங்களில் 36 வனச்சரகங்கள், 101 பீட்களை உள்ளடக்கியது ஆகும். ஒருங்கிணைக்கப்பட்ட கணக்கெடுப்பு முதன்முறையாக மொத்த மாதிரி கணக்கெடுப்பு மற்றும் இரட்டை பார்வையாளர் முறை என இரண்டு வகையில் கணக்கெடுப்பு நடத்தப்பட்டது. இக்கணக்கெடுப்பு மூலம் கிடைக்க பெறும் தரவுகள் மிகவும் துல்லியமாகவும், நம்பகதன்மையுடன் இருக்கும். 2024-ஆம் ஆண்டு கணக்கெடுப்பின் படி தமிழ்நாட்டில் 1031 வரையாடுகளும், தமிழ்நாடு மற்றும் கேரள எல்லைகளில் தேர்ந்தெடுக்கப்பட்ட பகுதிகளில் உள்ள வரையாட்டின் எண்ணிக்கை 1858 ஆகும். கேரள இரவிக்குளம் தேசிய பூங்காவில் 827 வரையாடுகள் இருப்பதாக தெரிய வந்தது. வரையாடுகள் மிக அதிகளவில் முக்குர்த்தி தேசிய பூங்காவில் 203 வரையாடுகள் மற்றும் கிராஸ் ஹில்ஸ் பகுதியில் 276 வரையாடுகள் இருப்பதாக மதிப்பிடப்பட்டுள்ளது.

நீலகிரி வரையாடு திட்டத்தின் ஒரு பகுதியாக, மாநில விலங்கான வரையாட்டில் சிறப்பினை வெளிப்படுத்தும் விதமாக ஒருங்கிணைந்த நீலகிரி வரையாடு கணக்கெடுப்பு புத்தகம் 2024 மற்றும் நீலகிரி வரையாடு "My Stamp" சிறப்பு தபால் அட்டை மாண்புமிகு வனத்துறை அமைச்சர் திரு. பொன்முடி, அவர்களால் வெளியிடப்பட்டது. இத்திட்டத்தின் ஒரு அங்கமாக இனி வரும் காலங்களில் ஒவ்வொரு ஆண்டும் ஒருங்கிணைக்கப்பட்ட நீலகிரி வரையாடு கணக்கெடுப்பு நடத்தப்பட்டு அதன் எண்ணிக்கையும், வாழிடங்களும் பாதுகாக்கப்படும்.

VOLUME 1, ISSUE 4

வருடை

ஹைக்கூ

வரலாற்றில் வரையப்படும்
நிலை வந்ததால்
என்னவோ இவை
வரையாடு என்றழைக்கப்படுகின்றனவோ!

குறிஞ்சி மலையில்
குயில் கூவும் நேரத்தில்
குளிர்ந்த மேகத்தில்
குன்றின்மேல் நிற்கும் வருடை!

தமிழ்மாநில விலங்கு என்று
மகுடம் சூடிய கர்வத்தால்
மலை முகட்டில் நிற்கின்றாயா!

மலைமுகட்டில் அமர்ந்து
மலைச்சரிவுகளில் தவழ்ந்து
பசும் புல்லில் மேய்ந்து
நீரளிக்கும் வருணணாய்
சோலைப்புல்வெளியில் வீரனாய் வரையாடு!!

சோலைப்புல்வெளிகள் எல்லாம்
சாலை வெளிகளாக மாறியதால்
மலைஅடியில் இருந்த வருடைகள்
மலைமுகடு வருடைகள் ஆயின!!

FIELD OBSERVATIONS

A GENERAL OVERVIEW OF MUKURTHI NATIONAL PARK AND THE NILGIRI TAHR

Nesan T. Senior Research Fellow

The Mukurthi National park (Hereafter referred to as MNP) is part of Nilgiri biosphere reserve. Western Ghats is also part of a UNESCO world heritage site since July 2012. MNP is located in the western end of the Nilgiris plateau in the North West corner of Tamil Nadu.

MNP consists of montane grassland and shrubs interspersed with sholas. The terrain is undulating, with high altitudes ranging from 1,500 to 2,629 meters. The area is located between 11°10' to 11°22' latitude and 76°26' to 76°34' longitude, covering an extent of 78.46 square kilometres. Notable peaks within the national park include Niligiri Peak and Mukurthi Peak and Sispara, Anginta, and Gulkal Peaks in the southern region, all exceeding 2,000 meters in elevation. The environment is harsh, with annual monsoon rainfall ranging from 200-600cm and nighttime temperatures dropping below freezing. Wind speeds can be high, reaching up to 120 kilometres per hour.

History

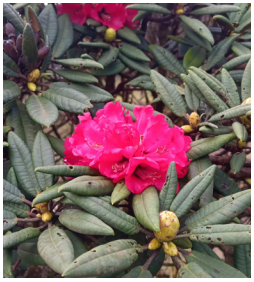
Native hill tribe communities, including the Toda people, have harvested firewood from the Sholas and grazed their livestock for centuries. The indiscriminate felling of the Sholas began with the establishment of British settlements in Ootacamund, Coonoor, and Wellington in the early 19th century. Bangitappal, located at the southwest end of the park, served as a halting place on the old Sispara Ghat road from Kozhikode to Ooty, which was constructed in 1832. This pass provided a short land route for postal runners travelling from Ooty to the west coast in the 19th century and was also used to smuggle cannabis, tobacco and salt. A forest rest house and a trekkers' shed were built there in 1930. Between 1840 and 1856, several non-native tree species, including wattle, were introduced to the area to meet the demand for fuelwood. In 1882, the Inspector General of Forests, Dietrich Brandis, recommended part of this area as forest blocks, and it was later declared a reserve forest in 1886. This area was designated as a wildlife sanctuary on August 3, 1982, and upgraded to a national park on October 15, 1990. (Source: Wikipedia)

Flora

The entire park is vegetated with shola grassland along shrubs and other non-woody plants. The major grass species of the park are *Chrysopogon zeylanicus, Arundinella purpurea, Tripogon anantaswamianus, , Themeda triandra and Eragrostis unioloides etc,.* Other common shola trees and shrubs found here includes: *Rhododendron arboreum subsp. nilagiricum, Strobilanthes kunthiana,* etc.

Strobilanthes kunthiana
Neelakurinji

Impatiens leschenaultii
White Nilgiri Balsam



Rhododendron arboreum subsp. nilagiricum
Nilgiri Rhododendron

Medows

Meadows are large, open areas of land covered primarily with grasses, shrubs, and other herbaceous (non-woody) plants. Meadows support a wide variety of plant and animal species, many of which are specialized and cannot survive in other habitats. These meadows also helps in retaining the rain water and helps in keeping the streams alive throughout the year.

Nilgiri Tahr grazing in the shola grassland at Mukurthi National Park

The elusive – Nilgiri marten.

(Martes gwatkinsii)

Nilgiri Tahr (Saddleback male)

(Nilgiritragus hylocrius)

Several threatened mammal species live here including Nilgiri tahr *(Nilgiritragus hylocrius)*, Indian elephant *(Elephas maximus)*, Bengal tiger (*Panthera tigris)*, Nilgiri marten *(Martes gwatkinsii)*. Avifauna includes the threatened Nilgiri laughing thrush *(Montecincla cachinnans)*, Malabar whistling thrush *(Myophonus horsfieldii)*, Nilgiri wood pigeon *(Columba elphinstonii)*. It is also a home to many species of endemics reptiles, *viz.* Dwarf gecko, Nilgiri salea *(Salea horsfieldii)* and snakes that includes horseshoe pit viper *(Craspedocephalus strigatus)* and checkered keelback *(Fowlea piscator)*.

Rare endemic – Horseshoe pit viper

(Craspedocephalus strigatus)

NILGIRI TAHR

The Nilgiri tahr (*Nilgiritragus hylocrius*) is an ungulate endemic to the Nilgiri Hills and the southern regions of the Western and Eastern Ghats in the states of Tamil Nadu and Kerala. It is the sole species in the genus Nilgiritragus and is closely related to sheep of the genus Ovis. The Nilgiri tahr, found in montane shola-grassland ecosystems, is aptly referred to as the 'mountain guardians'. Thar helps in maintaining the grassland ecosystem, serving as prey for predatory species and acting as a keystone species in montane grasslands. The Nilgiri tahr is a social animal that lives in herds consisting of adult females and their young. Most adult males either form bachelor herds or live solitarily, although they are occasionally observed with herds in the rutting season. The Nilgiri tahr, endemic to the Western Ghats of South India, inhabits high elevations on cliffs, grass-covered hills, and open terrains.

Sighting of rare endemic mammal 'Nilgiri marten' (Martes gwatkinsii) Horsfield, 1851 in the Nilgiri Tahr habitat of Mukurthi National Park

Manigandan. K, and Nesan, T. Senior Research Fellow.

The Project Direct, Project Nilgiri Tahr, and research team along with forest frontline staff of the Western catchment beat conducted a field survey in the western catchment area of Mukurthi National park on 26th Nov 2024. The objective of the survey is to locate the Nilgiri Tahr for radio collaring. We delighted to spot a rare and elusive omnivorous mammal, the "Nilgiri marten" at 9:43 AM in the Nilgiri Tahr habitat of the Western catchment. The Nilgiri marten has been reported in Mukurthi National Park by (Yoganand & Kumar, 1995, 1999).

The habitats stretch to montane wet temperate forests, meadows, and shola forests. *Syzygium calophyllifolium* and *Gaultheria fragrantissima*, an evergreen tree species, were found to have a scattered distribution. This ecosystem was inhabited by ferns, *Eupatorium glandulosum*, and grass species such as *Chrysopogon zeylanicus, Themeda triandra, Arundinella purpurea, and Eulalia sp.* A dense tree canopy has been observed along perennial river streams that originate in the Northwest and flow southeast. The mean sea level is 2432 m.

The Latin name of this species, *Martes gwatkinsii*, *Martes* (genus), refers to a group of carnivorous mammals in the Mustelidae family, and *gwatkinsii* (species) honors the British naturalist William G. Watkins for his contribution to the study of this species and its habitat. The Nilgiri marten, locally known as Nilgiri mara-naai (Tamil), Illingan (Muthuvan), and Mara-nayu in (Malayalam).

Martes gwatkinsii, commonly known as the Nilgiri marten, is primarily distributed across the southern part of the Western Ghats in Kerala, Tamil Nadu, and parts of Karnataka. They are mostly confined to the high-altitude montane (shola) and evergreen forests; rarely in moist deciduous forests and plantations. The altitude (MSL) ranges from 120 to 2900 m, more commonly from 600 to 1400 m.

India is home to three species of marten in the Martinae subfamily. These include the Yellow-throated marten (found in the Himalayas from Jammu and Kashmir to Arunchal Pradesh and the northeastern hill states), the Stone marten (found in the western and central Himalayas, including Ladakh and Sikkim), the Nilgiri marten (found in the Western Ghats, Karnataka's Bramagiri Wildlife Sanctuary, the Nilgiris, the Grass Hills National Park, the Srivilliputhur Wildlife Sanctuary, Kalakkad-Mundanthurai Tiger Reserve in Tamil Nadu and the Silent Valley National Park, Muthikkulam Reserve Forest, Attapadi Reserve Forest, the Nilambur South Reserve Forest, the Sholayar Reserve Forest, the Chinnar Reserve Forest, the Eravikulam National Park, the Periyar Tiger Reserve, the Peppara Wildlife Sanctuary, and Wayanad in Kerala.

The Nilgiri marten, listed as a vulnerable species categorized by the International Union for Conservation of Nature and protected under Schedule I of the Indian Wildlife Protection Act - 1972. Nilgiri Marten is currently listed

in the IUCN Red List of Threatened Species as Vulnerable (Choudhury et al. 2008)

The Nilgiri marten is an important predator in montane grassland environments, keeping food balance by preying on insects, rodents and small mammals such as mouse deer. This elusive mammal is sharing its home range close to the perennial water streamline, which is origin from the Nilgiri Tahr habitat of Western catchment. The information available on the ecology of species is less due to elusive habit.

FLORA CORNER

Dendrobium anamalayanum Chandrab., V. Chandras. & N.C. Nair - a rare endemic orchid in Nilgiri Tahr habitat of Grasshills National Park- Anamalai Tiger Reserve.

Dr. B. Subbaiyan, Senior Research Fellow

Project Nilgiri Tahr is an iconic initiative in Tamil Nadu, consisting of nine components. Habitat restoration is a crucial element of Project Nilgiri Tahr. The Nilgiri Tahr team has worked diligently to identify flora, focusing on the fodder species of the Nilgiri Tahr. To date, more than 230 species have been identified in the habitat of the Nilgiri Tahr within the Anamalai Hills of which some very unique species are found in the Nilgiri Tahr habitat. *Dendrobium anamalayanum* is a significant and unique species found within the Nilgiri Tahr habitat. Key locations such as Koramparai and the areas around the Seventh Waterfall in Grasshills National Park are particularly important. It is worth noting that the Koramparai area serves as a prime habitat for the Tahr. In the last census conducted in Grass Hills National Park, we were able to see the largest herd of the habitat accounting for more than 220 numbers of individuals.

Dendrobium anamalayanum is a species belonging to the genus Dendrobium and the family Orchidaceae. The second largest number of flowering plant species are found in the family Orchidaceae. It is found in Koramparai areas at elevations between 1980 to 2000 meters as a small epiphytic plant. The basic characteristics of the plant are as follows. The species has ovoid pseudobulb with greenish-pink stems enveloped basally by sheaths. The leaves are linear-lanceolate and acute. The plant blooms in the summer. Generally, this species can be seen in Shola forests and open grasslands. During the field study in Koramparai and Thanakamalai areas a small number of this species was sighted. The *Dendrobium anamalayanum* is a species found to be endemic to Tamil Nadu and Kerala. Nilgiri Tahr and *Dendrobium anamalayanum* are endemic to Western Ghats and are unique species that need significant conservation measures through Project Nilgiri Tahr.

SPECIAL COLUMN

Connectivity of Nilgiri Tahr in Peyanar Varaiyattu Mottai (Lowest Elevation Habitat) and Adjoining Landscapes in Sivagiri Range, Nellai Wildlife Sanctuary, Tirunelveli Division`

N.Rajeshkumar, Senior Research Fellow, Project Nilgiri Tahr

The major objective was to assess the connectivity of Nilgiri Tahr (lowest elevation habitat) in Peyanar Varaiyattu Mottai and adjoining landscapes.

Study area

The study was conducted in Peyanar Varaiyattu Mottai, which falls under the Peyanar Beat of the Sivagiri North Section within the Sivagiri Range of the Nellai Wildlife Sanctuary, Tirunelveli Division. The present investigation was carried out from August 23, 2024, to August 30, 2024. The habitat consisted of thorny to dry deciduous forest interspersed with grasslands and rocky cliffs in Peyanar Varaiyattu Mottai. The elevation ranges from 232 to 356 m (msl). The field staffs accompanied for the survey included Mr. Jackson (Forester), Mr. Perumal (Forest Guard), Mrs. Chitra (Forest Guard), Mr. Marimuthu (Forest Watcher), Mr. Saravanan (APW) and Mr. Guru (APW).

Methods

The entire area of Peyanara Varaiyattu Mottai and the adjoining habitats, including Kuthukattai Mottai and Kurangu Malai, were assessed to identify the Nilgiri Tahr and its connectivity. Field equipment such as binoculars and cameras were utilized for photographic documentation. Ziplock bags were employed to collect Nilgiri Tahr pellets for molecular analysis. Additionally, other flora and fauna species were also recorded in Peyanar Varaiyattu Mottai. The climate during the study featured a clear sky, moderate winds, and temperatures ranging from 26°C to 34°C.

Results and Discussion

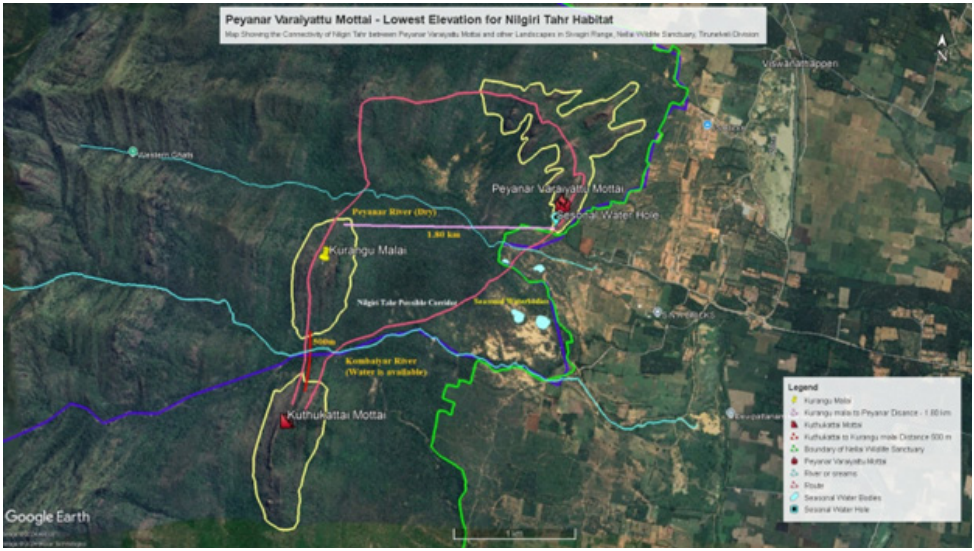
A total of six individuals of Nilgiri Tahr including a Saddle Back Male (N=1), Adult Male (N=1), Female (N=2), and Yearlings (N=2) were recorded in Peyanar Varaiyattu Mottai. During the observation two male Nilgiri Tahr were fighting each other, and foraging on grass. We recorded the lowest elevational distributional range for Nilgiri Tahr in this landscape. Tahr was recorded at an elevation range of 232 m, where thar observed to descend to drink water at a seasonal water hole available in a rocky area of Peyanar. The indirect signs of Thar usage such as, markings of urine and pellets were seen near to the water hole. The water level is reducing as proceeding towards summer. The availability of other water resources in the adjacent landscape needs to be investigated. In the tahr herd, that we observed, all the individuals were in good body condition and we did not find any individual with lumps. Previously in June 2024, one suspected

carnivore scat was collected and the same has been sent to AIWC for identification. The availability of forage plants was abundant with minimal invasive species. Fresh pellets of Nilgiri Tahr (four samples) were collected at Peyanar and sent to AIWC for Molecular analysis.

Possible Connectivity of Nilgiri Tahr in Peyanar Varaiyattu Mottai

During the regular monitoring of Nilgiri Tahr in Peyanar Varaiyattu Mottai and the surrounding landscape, I focused on assessing connectivity and movement patterns. The sizes of the rocky habitats varied, with Peyanar Varaiyattu Mottai covering 71 hectares, Kurangu Malai 39.4 hectares, and Kuthukarrai Mottai 47.4 hectares. The distance between Kuthukattai Mottai and Kurangu Malai is 500 meters. The Kombaiyar River flows between these mountains, serving as a perennial water source. The distance from Kurangu Malai to Peyanar Varaiyattu Mottai is 1.80 kilometers. In this area, some forested regions are classified as Patta land, which experiences minimal human disturbance. A potential corridor for Nilgiri Tahr exists between Kuthukattai Mottai and Kurangu Malai, with the shortest distance being 500 meters, and also through the Patta land (see Map 1). Several seasonal water bodies are located near Peyanar Varaiyattu Mottai. In addition to the tahr, other ungulate species, such as spotted deer (10 individuals), were recorded near the foothills of Peyanar Varaiyattu Mottai. The important floral, birds, and mammal species were listed below.

On 6th June 2024, one individual of Nilgiri Tahr were recorded in Kuthukattai mottai.



Map 1: Map showing the connectivity of Nilgiri Tahr between Peyanar Varaiyattu Mottai and adjoining landscapes in Sivagiri Range, Nellai Wildlife Sanctuary of Tirunelveli Division.

Flora species of Peyanar Varaiyattu Mottai

1. *Panicum* sp.
2. *Barleria tomentosa*
3. *Crotalaria heyneana*
4. *Commelina clavata*
5. *Oeosporangium elegans*
6. *Euphorbia neriifolia*
7. *Cybopogon flexuosus*
8. *Dichrostachys cinerea*
9. *Oldenlandia corymbosa*
10. *Sida cordifolia*
11. *Hybanthus enneaspermus*
12. *Waltheria indica*
13. *Cleome viscosa*
14. *Endostemon viscosus*
15. *Sida rhombifolia*
16. *Commiphora wightii*
17. *Lantana camara*
18. *Ficus* sp.

Bird species

1. Common Hawk Cuckoo
2. Spotted Dove
3. Crested Serpent Eagle
4. Red Vented Bulbul
5. Plum-headed Parakeet
6. Rose Ringed Parakeet
7. Jungle Babbler
8. Common Iora
9. Oriental Honey Buzzard
10. Oriental White Eye
11. Rufous Treepie
12. White-cheeked Barbet
13. Purple-rumped Sunbird
14. Grey Jungle Fowl
15. Indian Robin

Reptiles

1. Bengal Monitor Lizard
2. Peninsular Rock Agama
3. Garden Lizard

Butterflies

1. Striped Tiger
2. Southern Bird Wing
3. Blue Tiger
4. Blue Mormon
5. Chocolate Pansy
6. Red Helen
7. Common Grass Yellow
8. Blue Bottle
9. Common Sailor
10. Common Crow

Mammals

1. Nilgiri Tahr – 6
2. Asian Elephant
3. Sloth Bear

NILGIRI THAR PROTECTION AND AWARENESS VEHICLE RALLY AT THIRUNELVELI

M. Ashokkumar, Project Scientist, Project Nilgiri Tahr

School awareness program and awareness on vehicles through cultural programs organized by the Project Nilgiri Tahr and Arumbugal Trust at Tirunelveli. The cultural program includes, folklore dance, story-telling about Tahr, climate change and historical information, question and answers. Each components of this program had specific message to the school children and public. Cultural program consists of songs, story, question and answers were composed by Dr. Raja Mathivanan, and Mrs. V. Latha Mathivanan founders of Arumbugal Trust with inputs from the project director, the project Nilgiri tahr.

This program was initiated by flagging-off by the Dr. K. P. Karthikeyan, Collector, Tirunelveli District on 17th Dec 2024 below the Nilgiri Tahr statue garden at Reddiyarpatti hill. The special vehicle designed for the rally that carries the information banners about the Nilgiri Tahr and its habitat. On this graceful occasion was honored by Dr. M. Ilango, District forest officer, Social forest, Tirunelveli Tahsildar, Superintendent of Police - Tirunelveli, and Range forest officers, foresters and guards. Students from the Sharada college, Tirunelveli were participated on this occasion. The pictorial post card with Nilgiri Tahr was distributed to the students. Smt. Latha Mathaivanan has given vote of thanks. Myself and Rajesh Kumar, SRF, Project Nilgiri Tahr take part in the program.

The Nilgiri tahr wheel on message vehicle traversed through the streets of Tirunelveli. The information conveyed by recorded audio about Nilgiri Tahr and its conservation significance in Tamil. First awareness program was conducted at the Sadakathullah Appa College, Palayamkottai. All the students and staffs were given positive feedback. We distributed Nilgiri Tahr pictorial post cards to the students. After this we gave awareness in the Sri Jayendra Saraswathi Golden Jubilee School, Thalaiyuthu were more than 400 students were participated and overall response of the students were overwhelmingly great.

We had warm welcome at Magdalene Matriculation Higher Secondary School, Tirunelveli placards carried by students about the Nilgiri Tahr and its conservation significance. Students were given positive feedback and Pictorial post cards were distributed. The awareness rally vehicle stopped near bus stand and regions were public were more. The Project Nilgiri Tahr information audio were played for 15minutes. Finally, we reached the Chennai Silks, Tirunelveli, were cultural programs were conducted for 45 minutes. The manager and staffs were given positive feedback and public were watched the program. The information brochure about the Nilgiri Tahr project and their conservation were given to the people.

On 18th Dec 2024 we conducted awareness program in the public places such as Melapalayam, Cheran Mahadevi, and Thirukkurungudi bus stops. Further we organized program in the educational institutions such as Muthamil Public school, SCAD Polytechnique and Engineering and Technology, Manonmaniyam Sundranar University College and Meerania Muslim School, Tirunelveli.


TIRUNELVELI
TAMILNADU


தென் தமிழகத்தில் 1,00,000 பிரத்தியேக கலெக்ஷன்களின் பிரமாண்ட பட்டு அரங்கம்.
அரும்புகள்

EDITOR'S CHOICE

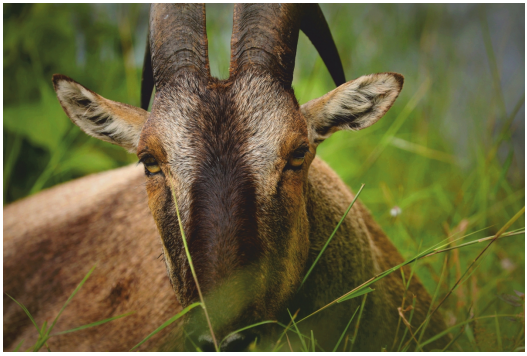
RESILIENCE IN THE FEMALE NILGIRI TAHR TO MAXIMIZE THEIR REPRO-DUCTIVE FITNESS

M. Ashokkumar, Project Scientist, Project Nilgiri Tahr

The Nilgiri Tahr (hereafter referred to as tahr) is an endemic and endangered mountain monarch of the Southern Western Ghats of Tamil Nadu and Kerala. Tahr thrives in the fragmented patches of the forest. These ungulates are gregarious, with mixed groups, all-male groups, and solitary male individuals. Males associate with female herds during the breeding season, which occurs from July to August. Tahr reproduces seasonally, independent of plant senescence, and is likely influenced by day length. Earlier studies on their reproductive behaivour by scientist Clifford Rice indicated that most adult females give birth from January to February, coinciding with the maturity and drying of grass species. Consequently, the timing of parturition does not align with the plant phenology (flowering). Previous reports have documented, changes in range use before and after parturition; tahr prefers to forage near cliff areas with their lambs as a strategy to avoid predation. Further investigation into the forage patch selection of lactating and non-lactating tahr could provide more insight into the forage preferences of Nilgiri Tahr.

Further, female tahrs typically produce only one offspring per year and occasionally produce twins. But if the lambs die in the early stage, adult females come into oestrus within two to three weeks. This allows, the female tahr to conceive and deliver another offspring within the same year. This reproductive strategy is similar to that of most Caprinae species (mountain sheep/goat), which generally produces only one offspring annually. This approach may provide an evolutionary advantage by allowing for greater investment in one offspring with parental care than a large number of offspring. But Hayssen et al. 1993 described that many Caprinae are capable of producing twins and triplets under certain conditions. Similar observations have been made in captive tahr, where ewes can come into estrus even while lactating. Thus, environmental factors can limit the reproductive output of female tahr. Nevertheless, Nilgiri tahr females demonstrate greater resilience in adverse conditions such as the loss of offspring, and exhibit a repeated estrus cycle, enabling them to produce a second offspring within the same year.

PHOTO GALLERY



Nilgiri Tahr Pictorial Postal Card released with the support of India Post

The Nilgiri tahr 50 paise postal stamp was released on July 20,2000

The Nilgiri tahr "My stamp" was released on December 18, 2024.

The Nilgiri tahr statute

Horse fly hovering on *Rhododendron arboreum subsp. nilagiricum (Zenker)*

POSTER VLOG

NILGIRI TAHR

FODDER SPECIES

Dr. B.Subbaiyan, SRF

Arundinella mesophylla

Arundinella purpurea

Chrysopogon zeylanicus

Themeda triandra

Ischaemum indicum

Heteropogon contortus

Eragrostis unioloides

Fimbristylis aggregata

Arundinella ciliata

PROJECT NILGIRI TAHR

OCT – DEC 2024

THREE TAHRS ACROSS THE WORLD

	NILGIRI TAHR	HIMALAYAN TAHR	ARABIAN TAHR
COMMON NAME			
SCIENTIFIC NAME	*Nilgiritragus hylocrius*	*Hemitragus jemlahicus*	*Arabitragus jayakari*
STATUS	Endangered & Schedule I - IWPA 1972.	Near Threatened	Endangered
DISTRIBUTION	Southern Western Ghats (Tamil Nadu & Kerala) of South India	Greater Himalayas, India, Nepal, Bhutan. Tibet (China)	Mountains of Oman, United Arab Emirates (UAE)
LIFE SPAN	9 - 12 Years in the Wild	10 - 14 Years in the Wild	10 - 15 Years in the Wild
SHOULDER HEIGHT	Male : 100 cm Female : 80 cm	Male : 100 cm Female : 65 cm	Male : 64 cm Female : 62 cm
WEIGHT	Male : 80 - 100 Kg Female : 50 - 60 Kg	Male : 75 - 120 Kg Female : 50 - 60 Kg	Male : 38 - 45 Kg Female : 17 - 20 Kg
COAT COLOR	Light brown to Dark brown	Reddish brown to Dark brown	Reddish brown to Gray
HABITAT	Montane grassland, Rocky crags, mountain meadows. Elevation : 500 - 2500 m	Steep rocky mountains slopes, Open alpine grassland and sub alpine scrubland. Elevation : 1500 - 5200 m	Forested hills, mountains and Alpine meadows. Elevation : 0 - 2315 m

PROJECT NILGIRI TAHR,
TAMILNADU FOREST DEPARTMENT

Courtship and other behavioural displays by Nilgiri Tahr (Redrawn from Rice and Madhusudan, 2015)

From top left to right

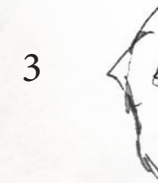
1. Side sniff - Adult male tahr sniff the female inguinal region from the sides
2. Rear sniff – Adult male tahr sniff the female from the rear

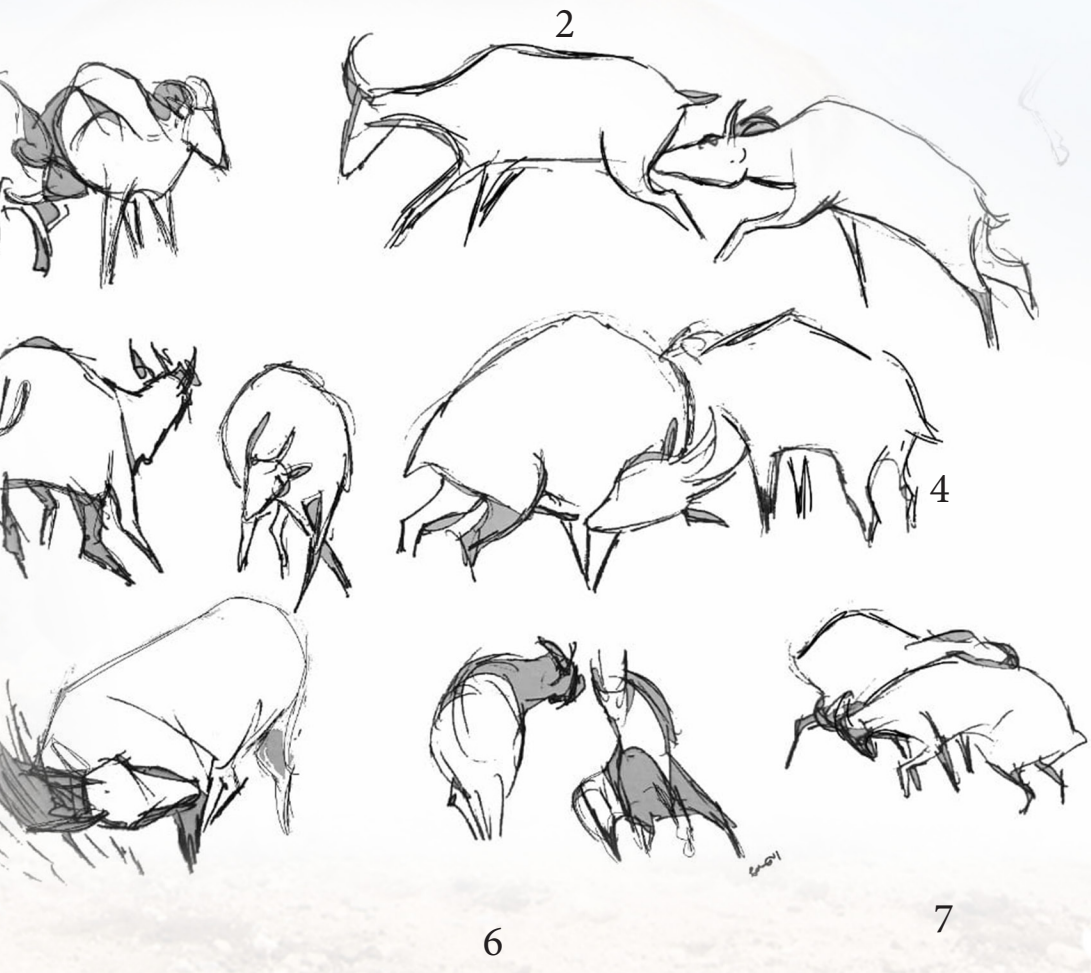
Middle (left to right)

3. Reverse parallel fighting - Standing parallel, besides each other, facing opposite directions
4. Head butt

Bottom (left to right)

5. Horn rubbing
6. Head butt sideways
7. Head butt in reverse parallel position





Source : Dr.Gokula

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