



TAMILNADU FOREST DEPARTMENT



வாரியாடு VARAIYAADU

THE OFFICIAL NEWSLETTER OF PROJECT NILGIRI TAHR

PROJECT NILGIRI TAHR

**SAVE OUR STATE ANIMAL
OUR NILGIRI TAHR, OUR PRIDE**





DIRECTOR'S MESSAGE

It gives me immense pleasure to present the third edition of the 'VARUDAI' newsletter, which highlights the remarkable progress of Project Nilgiri Tahr—an iconic initiative aimed at conserving one of India's most unique and endemic species, the Nilgiri Tahr. Our efforts to safeguard this mountain ungulate have reached new milestones, which embarks a significant leap in understanding the population dynamics and ecological preferences of this keystone species. Furthermore, I am delighted to announce the second radiocollaring of a Nilgiri Tahr at Anamalai Tiger Reserve. The radio telemetry studies in Nilgiri Tahr is a pioneering effort to understand its home range and behavioral ecology.

These achievements in the research, demonstrate our commitment in the conservation of Tamil Nadu's State Icon. We are confident that the insights gained from these endeavors will help in redefining the conservation strategies. But beyond research and fieldwork, our mission thrives on collaboration, innovation, and outreach. I encourage all our readers, stakeholders, and supporters to share valuable suggestions and innovative solutions for the conservation of these elusive mountain ungulate, to aid our future goals.

Let us continue to strive for the protection of Nilgiri Tahr in its pristine habitats, that are the guardians of the montane grassland ecosystem.



M.G. GANESAN
Project Director,
Project Nilgiri Tahr

EDITORS

K. GANESH RAM
Assistant Director

Dr. S. PRIYANKA
Senior scientist cum
Research Coordinator

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



JULY - SEP 2024

TABLE OF CONTENTS

1	வரையாடுகளும் தமிழ் கணாச்சாரமும்	6
2	வருடை	8
3	FIELD OBSERVATIONS NILGIRI TAHR HABITAT SUITABILITY STUDY PUPIL ORIENTATION OF <i>Nilgiritragus hylocrius</i>	9
4	FLORA CORNER <i>Themeda tremula (Nees ex Steud.)</i>	13
5	SPECIAL COLUMN A NEWLY COLONIZED HABITAT OF NILGIRI TAHR AWARENESS PROGRAMS	14
6	EDITOR'S CHOICE Radiotelemetry study of Nilgiri Tahr	20
7	PHOTO GALLERY	22
8	POSTER VLOG	24

வரையாடுகளும் தமிழ் கலாச்சாரமும்

நமது மாநில விலங்கான வரையாடுகள் இலக்கிய மற்றும் கலாச்சார முக்கியத்துவம் வாய்ந்த உயிரினமாகும். இந்தியாவில், உலகில் பிற பகுதிகளைப் போலவே, பல சமூக மக்கள் இயற்கையின் பல்வேறு வளங்களை தங்கள் பாரம்பரிய தெய்வமாக வணங்குகிறார்கள். பண்டைய தமிழரின் பாரம்பரிய கலாச்சார மற்றும் வழிபாட்டு முறைகள் மிகவும் சிறப்பு வாய்ந்ததாகும். அந்த வகையில், சில மக்களின் வழிபாட்டு முறைகளில் நீலகிரி வரையாடுகளின் அளப்பரிய பங்கு பற்றிய சான்றுகள், நீலகிரி வரையாடு திட்ட குழுவினரால் ஆவணப்படுத்தப்பட்டுள்ளது. தென்மேற்கு தொடர்ச்சி மலைப்பகுதியில் 'கூக்கல் (ஓர்ந்ஹை)க கிராமத்தில் அமைந்துள்ள 'பாப்பாலம்மன் கோவில்' வணப்பகுதி மிகவும் தனித்துவம் மிக்க நிலப்பரப்பாகும். இந்த கூக்கல் மலைப்பகுதி திண்டுக்கல் மாவட்டத்தின் கொடைக்கானல் தொகுதியில் உள்ள பழனி மலையின் விளிம்பில் அமைந்துள்ளது.

இந்த வணப்பகுதியில் சுமார் 12 நீலகிரி வரையாடுகள் வசிக்கின்றன. இங்குள்ள 'பாப்பாலம்மன் தேவி' ஆலயத்தில், ஒரு நீலகிரி வரையாடு சிற்பம் காணப்படுகிறது. இந்த வரையாடு சிற்பம் இயற்கை பாதுகாப்புடன் தொடர்புடைய மக்களின் இறை நம்பிக்கைகளுக்கு சான்றாக விளங்குகிறது. இந்த கோவிலில், ஆண்டுக்கு ஒருமுறை தமிழ் மாதமான சித்திரை 1-ஆம் நாளில், ஏராளமான பக்தர்கள் தங்களின்

பாரம்பரிய சடங்குகளைப் பின்பற்றுகிறார்கள்.

வரையாடுகள் மேய்ச்சலுக்குப் பிறகு, உச்சி வெயில் பொழுதுகளில் நிழலுக்காகவும், ஓய்வு எடுப்பதற்காகவும் இந்த பாப்பாலம்மன் தேவி ஆலயத்தின் கூரை நிழலில் தஞ்சமடைகின்றன. மேலும் இந்தப் பகுதியின் உயரமான பாதை முகடுகள், வரையாடுகளின் புகலிடமாக விளங்குகிறது.

மேலும், இந்த வரையாடு சிற்பம், ஒரே கல்லினால் செய்யப்பட்டுள்ளது இதன் கூடுதல் சிறப்பம்சமாகும். இயற்கையை வணங்குவதும், அதனைப் போற்றிப் பாதுகாப்பதும் தமிழரின் உயரிய பண்பாகும். இந்த வரையாடு சிற்பம் மலைச்சூழல் புவளிகளை காக்கும் வரையாடுகளை மக்கள் போற்றி வழிபடுவதை பிரதிபலிக்கின்றது. மேலும், வரையாடுகள், பண்டைய தமிழரின் வாழ்வியலோடு நெருங்கிய தொடர்புடையவை என்பதற்கு சான்றாகவும் விளங்குகின்றது.

இந்த நிலப்பரப்பு ஏராளமான பல்லுயிர் பெருக்கத்தை கொண்டுள்ளது. கள ஆய்வின் போது, இங்கு ஆவணப்படுத்தப்பட்ட சில தாவரங்கள், அருகி வரும் நிலையில் உள்ளன. இந்த பாப்பாலம்மன் நிலப்பகுதி, பல்லுயிர் பெருக்கம் மற்றும் உள்ளூர் மக்களின் சமூக, கலாச்சார வாழ்க்கையில் முக்கிய பங்கு வகிக்கிறது. எனவே, அதீத சூழல் மற்றும் கலாச்சார முக்கியத்துவம் கருதி இந்த பாப்பாலம்மன் கோவில் வணப்பகுதியை பாதுகாப்பது நம் அனைவரின் கடமையாகும்.





வரையாடு சிலை



பாப்பாலம்மன் தேவி ஆலயம்

வருடை

வளம் சேர்க்கும் கானகத்தை
நீதம் காக்கும் வருடைகள்!
நீருற்றுகள் பிற்ப்பெடுக்கும் நிலப்பரப்பின்
வியத்தகு அகணிய விந்தைகள் !
புல்மேடுகளின் புவிசார் குறியீடுகள் !
முசுலத்தியின் குறுநில மன்னர்கள் !
அகத்திய மலையின் அருட்பெருங் கொடைகள்!
மேகமலையின் உயர்ந்தோங்கிய மேகதீவுகள்!
வின்னூயர் வரைகளின் விந்தைகள்!
வனம்பேனும் வருடை மந்தைகள் !
பெருவரையின் கரும்பாட்டு வருடைகள் !

உவியருவி Dr. சி. ஸிவங்கா
முசுலவை விஞ்ஞானி

FIELD OBSERVATIONS

NILGIRI TAHR HABITAT SUITABILITY STUDY AT MEGAMALAI DIVISION

Dr. B. Subbaiyan, Senior Research Fellow

A preliminary field survey was carried out in the habitat assessment of three historical Nilgiri Tahr habitats in Meghamalai division for re-introduction of Nilgiri Tahr. The Megamalai division of Srivilliputhur Megamalai Tiger Reserve, spread across 600 Sq. Km encompasses 5 Wildlife Ranges within which the present field study was aimed to assess the feasibility for Nilgiri Tahr re-introduction.

A team comprises of Deputy Director,

Project Director and Assistant Project Director with research personnel has visited following sites such as Venniyar Varaiyattu mottai in Chinnamanur Range, Narayandevanpatty varaiyattumottai and Mangala Devi Varaiyattumottai in Gudalur Range. During the field survey, the sites possess extensive cliff areas and, high distribution of forage grass species, but the sites like Venniyar varayattumottai are disturbed due to extensive cattle grazing and



other anthropogenic issues such as man-made constructions, plantation estates etc.

During the field survey, important parameters on the habitat of Nilgiri Tahr, such as weather report, presence of native vegetation, water source, presence of invasive species, availability of fodder species, details of adjacent habitats of Nilgiri Tahr, and numbers of escape terrain (rock slopes), were collected from Chinnamanur range (Venniyar Varaiyattumottai, Narayana Thevan Patty Varaiyattumottai) and Gudalur Range

(Mangala Devi Varaiyattumottai). Important fodder species identified from these three habitat such as *Cyanotis pilosa*, *Chrysopogon zylanicus*, *Themeda trandra*, *Andropogon lividus*, *Melinis repens*, *Ischaemum indicum*, *Indigofera pedicellata*, *Cyanotis tuberosa*, *Fimbristylis aggregata*, *Anaphalis wightiana* and *Arundinella purpurea*.

During the field survey in the Venniyar Varaiyattumottai area, We could see more than 100 cattle were grazing in the Nilgiri Tahr habitat. It is most important factor

affecting the Nilgiri Tahr habitat. The fodder species of Nilgiri Tahr were also reduced by uncontrolled cattle grazing in this habitat. During the field study, this area were found suitable for reintroduction of Nilgiri Tahr, but unless preventing uncontrolled cattle grazing, we can make it a better Nilgiri Tahr habitat. The Nilgiri Tahr was not noticed was

in Mangaladevi area. The presence of Nilgiri Tahr was observed for long time before but not recent days. The forest fire could be the main reason for local migration of Nilgiri Tahr or local extinction of the species. Hence, it was decided to conduct preliminary studies on habitat suitability for Re-introduction of Nilgiri Tahr.



Project Director and Assistant Project Director discussion with local frontline field staff at MANGALA DEVI temple.

Pupil Orientation of Nilgiritragus hylocrius

Dr. S. Priyanka, Senior Scientist cum Research Coordinator

The Nilgiri Tahrs are the only mountain ungulates inhabiting high-altitude grassland meadows and glens. The hoofed mammals are social animals that live in herds. They have a greyish-brown pelage coat with distinct sexual dimorphism. The even-toed mountain goats have a bristly mane and unbranched backward-curved horns with characteristic annular rings. Being herbivores, the pupils of Nilgiri Tahr are horizontally oriented. The eye's shape of any living creature has evolved substantially to navigate their lifestyle. According to the perception of the relationship between stereoscopic vision, the brain's ability to combine the vision of right and left eye and blur, to estimate the distances is indeed a complex and largely empirical phenomenon. Predators have binocular vision, which helps them judge distance to their prey. These agile Nilgiri Tahrs are adorned with monocular vision, which gives them a panoramic view, to scan for any threat and detect an approaching predator, and to determine where they can escape from danger.

The different shapes of pupils in the animal kingdom includes round, vertical slit and horizontally elongated. In Nilgiri Tahr, the eyes horizontally slit pupils are also located on the sides of their head as an adaptation to scan for predators in all directions. Also, the horizontally elongated pupil gives the eye the most light from the sides and less from above, hence, the animal gets more light and clear image from front or behind it and less dazzling sunshine from above. Horizontal pupils provided a kind of panoramic vision that

helped goats, sheep and other herbivores to look out for predators. The horizontal pupil increases visibility in the horizontal plane and reduces "dazzle" from above. It also decreases blur when a prey animal has to peer ahead out of the corner of its eyes to run from a predator. The aperture of a slit pupil is smaller in one direction than the other and hence. the depth of field is also asymmetrical. The aperture of a slit pupil is smaller in one direction than the other. So the depth of field is also asymmetrical. The Nilgiri Tahrs as they bent down to graze, they are able to rotate their eyes up to 50 degrees, which is 10 times that of a human eye can rotate. The pupil of Nilgiri Tahr actually spin upwards as the head moves downward and as they bend their head down, the eye rotates up. This rotation helps to maintain horizontal pupils, which stay parallel to the grazing grounds and they are able to rotate the eyes in both clockwise and counter clockwise directions.

The purpose of horizontal pupils being aligned with the ground is to absorb more light from the front, back, and sides, leading to improved quality of sight. Horizontal pupils also do not let in as much light from above the animal's head. Therefore, the sun will not bleach their view of the ground. All of this rotation and control of amount of light let into the eye affords the animal the ability to still keep an eye on their surroundings and watch out for possible dangers.

As a contrary, the vertical slit pupils of domestic cats, fox, snakes and other small polyphasic ambush predators,

serves as the distance cues (stereopsis and blur) to gauge how far they must pounce to capture the targeted prey. The binocular vision in these ambush predators indicates that vertical lines behind the focal point are relatively sharp, but horizontal lines at the same distance are completely blurry, which serves as a distance cue to precisely pinpoint the prey. Depth perception in vertical slit pupils is even better than in round pupils because the smaller animals are closer to the ground, whereas large predators have

round pupils. Additionally, having vertical slits allows them to better hunt at night, thus, these animals are more likely to be nocturnal. The vertical slits can expand into a larger pupil size to let in more light and aid them in hunting at night.

Hence, it is strongly emphasized that the distinct shape of pupils in Nigliri Tahr help them to be alert from the predators. The evolutionary changes in the pupil of an animal is associated with its ecological niche.



FLORA CORNER

Themeda tremula (Nees ex Steud.) Hack. - an important fodder species of the Nilgiri Tahr

Dr. B. Subbaiyan, Senior Research Fellow

Nilgiri Tahr is an endemic mountain ungulate that inhabits the rocky slopes of Western Ghats in Tamil Nadu and Kerala. The Nilgiri tahrs are herbivores (graminivores, folivores) and feeds on more than 120 species of various grasses, shrubs, leaves, and forbs. During the field study, the team documented the foraging preferences of Nilgiri Tahr in their habitats. It was observed that, *Themeda tremula* is an important fodder species of Nilgiri Tahr and other animals. It is a perennial herb and belongs to the Poaceae family. The native range of this species is India, Bangladesh and Sri Lanka. The distribution range of this species varies with an altitude of 500-1000 m MSL.

This species could be distinguished based on the morphology character, such as lanceolate leaves, cordate at base, and

glabrous. The keeled sheath are covered with tubercled hairs. The young leaf and inflorescence are the edible parts foraged by Nilgiri Tahr. Based on the field experience, it was recorded that distribution of this species is found in rocky slopes and open dry rocky areas of Nilgiri Tahr habitat of Tamil Nadu. During the field survey, a large spread of *Themeda tremula* on hillocks of open rock area was observed in the fire-affected area. Post-fire areas should be monitored, for seed germination capability, which is important for grassland conservation. This species is closely associated with *Cyanotis tuberosa*, *Commelina clavata*, *Arundinella mesophylla*, *Herpericum mysorensis* and *Impatiens gougi*.



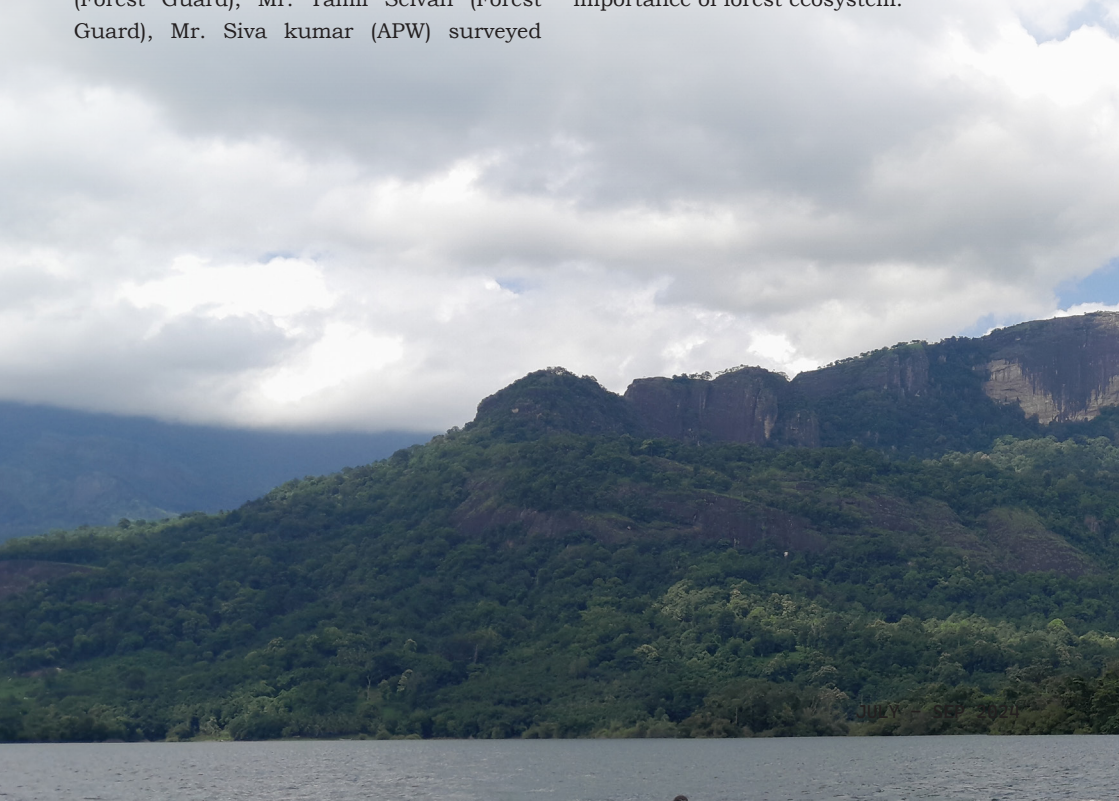
SPECIAL COLUMN

Thatcha malai - A newly colonized habitat of Nilgiri Tahr in Kanyakumari Wildlife Sanctuary, Tamil Nadu

N.Rajeshkumar, Senior Research Fellow, Project Nilgiri Tahr

A field survey was undertaken in the newly colonized Nilgiri Tahr habitat, Thatchamalai, of Kulasekaram Range in Kanyakumari. After intimation to the District Forest Officer, Kanyakumari Division, I started my trip towards Kulasekaram Forest Range Office, where I met the Forest Range Officer and Forester and discussed about previous Nilgiri Tahr sighting records in Thatchamalai, mode of travel to reach the habitat, place of stay etc. As per the instructions from Mr.Vijaya Kumar, Forest Range Officer, Kulasekaram Forest Range, the field team constituting Mr. Ramanan (Pechipparai Section Forester), Mr. Reji (Forest Guard), Mr. Tamil Selvan (Forest Guard), Mr. Siva kumar (APW) surveyed

the Thatchamalai area. The team started field visit to Thatchmalai village by rental boat from Pechippari Reservoir. During the boat journey, we had a fascinating view of Nilgiri Tahr habitat with grasslands and cliffs along with the surrounding areas which were covered by moist deciduous forest and rubber plantations. After 40 minutes of boat travel, we reached Thatcha malai village. We visited the Tribal Primary School at Thatcha malai, in which an awareness talk was given to 20 students in Kaani Tribal settlement. I interacted with students about the conservation aspects of Nilgiri Tahr, distribution, habitats, food preferences, and importance of forest ecosystem.



We spotted 12 Nilgiri Tahr individuals using binoculars in Thatcha malai cliff top from the school ground. The next day, we planned to reach the top of the Nilgiri Tahr habitat from Kilaviyar route. Unfortunately, due to Elephant movement in the trek path we cannot reach the top. However, a total of 15 individuals of Nilgiri Tahr (Adult Female - 9, Young - 3, and Adult Male - 3) were recorded in Thatcha malai top, which were visualized from the foothills of Kalapparai Tribal Settlement, Thatcha malai village. Various behavior activities such as, herd movement, resting and foraging of grass species were observed. Also, they exhibited an alert mechanism as a response to

human presence. The Nilgiri Tahr habitat at Thatcha malai is covered with rocky cliffs, slopes, grasslands and escape terrains and it is surrounded by moist deciduous forest and bamboo brakes. Thatcha malai is the only Nilgiri Tahr habitat, close to the human habitation (Kalapparai Kaani Tribal Settlement). Aerial distance between the Thatcha malai Nilgiri Tahr habitat and Kaani Tribal settlement is only about 250 to 300 meters MSL. It clearly indicates that, the Nilgiri Tahr habitats are extended upto the Southern most point of Western Ghats in the Kanyakumari District of Tamil Nadu.



Awareness programs conducted by Project Nilgiri Tahr

Van Mahotsav week was celebrated in KMTR during first week of July 2024 in coordination with innovation and incubation centres. A rally and Awareness programs were organized to VFC's , school and college students.

- On 01/07/2024, about 30 School students from Government Model Higher Secondary School, were invited to Vallanadu Black Buck Sanctuary. The session included trekking into the Sanctuary and awareness talk about the conservation of Nilgiri Tahr and its ecological importance.
- On 02/07/2024, various competitions like drawing, and elocution were conducted for 52 Students of Government Higher Secondary School, Mudivaithanendal at Thoothukudi and the winners were felicitated.
- On 03/07/2024, awareness session on Importance of Conservation of Nilgiri Tahr and Egyptian Vulture Conservation (Innovation and incubation centre, Tirunelveli) was delivered to about 100 school students of Muslim Girls Higher Secondary School, Melapalayam, Tirunelveli.
- On 05.07.2024, about 80 College Students of History Department, Thiruvalluvar College, Papanasam, Tirunelveli were sensitized on ecological importance of Nilgiri Tahr. Tree saplings were planted in college campus and Nilgiri Tahr conservation pledge was also taken by the students and Professors.
- on 06/07/2024, A rally was organized to create awareness about conservation of Nilgiri Tahr, involving active participation of 50 Village peoples from Mela Mavadi (VFC), Thirukurungudi Eco Range, KMTR, Tirunelveli.
- On 10/07/2024, an awareness talk on Nilgiri Tahr conservation was delivered to 17 tribal students of Thatchamalai Primary School (Tribal School) in Kaani tribal settlement.
- on 12/07/2024, an awareness session on the 'Conservation significance of Nilgiri Tahr', was delivered to 40 students at Government Tribal School, Kodayar, and education materials were also distributed.



Book fair expo, Coimbatore

Project Nilgiri Tahr installed an informative stall at Book fair expo for 10 days from July 19th to July 28th 2024, at Codissia trade fair complex, Coimbatore. The ten day book fair was inaugurated by Kranthi Kumar Pati, IAS., District Collector, Coimbatore and several dignitaries and eminent personalities including city police commissioner V Balakrishnan, IPS visited the stall and about 2800 people including school and college students, teachers, NGO's and public visited the stall and gained insights on Nilgiri Tahr conservation.

Indigenous people day

Owing to the Indigenous people day, Tribals from Kozhikamuthi Elephant camp including cavadis and mahouts were felicitated. Over the centuries the Malasar tribal communities have lived in harmony with the elephants and which adapted them with the specialised knowledge and skill to train the captive elephants. The Malasar tribes are expertised in capturing, taming and handling wild elephants. The elephants of this camp have made journeys to different parts of the country to capture and tame rogue elephants. Tribal day was celebrated in Government Higher Secondary School, Ramalingam colony, Coimbatore on 09.08.2024 in which 12 Malasar community people were felicitated. They also performed a folklore about their age-old cultural practices depicting their biophilic lifestyle. During the program, about 75 school students were sensitized about the importance of indigenous communities and conservation significance of our State animal.

World Elephant day

World Elephant day was celebrated on August 12th 2024 in coordination with ecoclub of Kongunadu College of Arts and Science, Coimbatore. A guest lecture was organized with the theme 'Conservation of Elephants'. Dr. S. Priyanka, Senior Scientist cum Research coordinator, Project Nilgiri Tahr and Dr. G. Sivasubramanian, Assistant Professor and Head (i/c), Department of Wildlife Biology, Kongunadu Arts and Science College served as the resource person for the event. The events involved the active participation of 172 students and 5 eco-club members and professors. The keynote of the session included healthy environment for elephants, status and distribution of elephants, Nilgiri Tahr and its habitats distribution, conservation importance of Elephant and Nilgiri Tahr, wildlife crime and control, corridor management for elephant conservation and human-animal conflict etc. Students from various discipline gained knowledge about the importance of conservation of elephants and Nilgiri Tahr.

A presentation on 'Conservation of Keystone species' was also delivered to 53 college students of Wildlife Biology Department, Government college, Ooty. The session was organised by Dr. Ramakrishnan, Professor and Head, Department of Wildlife biology, Mr. K. Manikandan and Mr. N. Rajesh Kumar, Senior Research Fellow of Project Nilgiri Tahr. Additionally, awareness initiatives were organized at Anamalai Tiger Reserve in which about 150 people tourist people were sensitized about the conservational importance of elephants and an awareness talk was delivered to 90 school students of the Government Higher Secondary school, Angalakuruchi.



EDITOR'S CHOICE

Radiotelemetry study of Nilgiri Tahr at Anamalai Tiger Reserve

Dr. S. Priyanka, Senior Scientist cum Research Coordinator

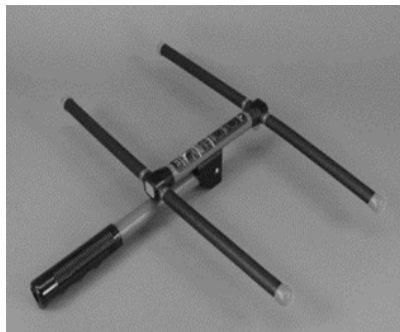


The radio telemetry studies in Nilgiri Tahr, being a significant study under the Project Nilgiri Tahr, it involves monitoring the movement and habitat usage of these endemic mammals. Permission has been granted to radio-collar Nilgiri Tahr in the Mudumalai Tiger reserve (MTR) and Anamalai Tiger Reserve (ATR). The Nilgiri Tahr herds surviving in the 9th hairpin bend of Villoni beat, near Attakatty, Pollachi Division, ATR are prone to extreme anthropogenic pressure like vehicle transport, pollution, artificial feeding and disturbance caused by the tourists surpassing the State Highway 78 (Valparai Ghat road), located at an elevation of 2558 ft above MSL. The hairpin bends (9-13) serve as a frequent locomotive passage for a semi-habituated herd of Nilgiri Tahr and

these individuals are observed by researchers for over a year. The herd includes two males, three adult females, and young ones, among which the two females were under gestation and one male had a deep wound near the stomach, caused during mating battles.. The male Nilgiri Tahrs traverse from 9th hairpin bend to Varaiattumottai hillocks during the non-rutting season. Hence, it was decided to radio collar a male Nilgiri Tahr to understand its movement and habitat usage pattern. This research is crucial for conservation efforts, as it could provide insights into the behavioral ecology of the species, inform management decisions, and help mitigate the impact of human activity on the Nilgiri Tahr's natural habitat.

The Radio Collaring activity was an outcome of meticulous team work, which was planned after conducting expert opinion meetings. This initiative was a joint effort of WWF-India and Project Nilgiri Tahr. A sub adult male Nilgiri Tahr, aged 3-4 years was chosen for collaring to study its home range, geotagging its habitat use and to understand its behavior dynamics. A special team comprising Project Director, Assistant

Director, Dr. Vijayaraghavan, FVAS, ATR, Dr. S. Priyanka, Senior Scientist cum Research coordinator, Dr. B. Subbaiyan, Senior Research Fellow, Mr. M.A. Predit, Associate coordinator, WWF-India, Mr. A. Vinoth, Project Officer, WWF- India along with Forest frontline staffs critically monitored the herd , to fit radio collars to the Nilgiri Tahr at Villoni beat, Pollachi Division, Anamalai Tiger Reserve.



On 21-08-2024, several attempts were made to physically capture the male Nilgiri Tahr using nets. Despite the efforts, the alerted individual often surpass the glen as an escaping mechanism. Hence, the Saddle back male was tranquilized for partial sedation using blow pipe dart method using a combination of drugs like xylazine and ketamine under recommended dosage. The vital signs were monitored using pulse oximeter and morphometrics were recorded. The neck girth was measured and the Collar harness was adjusted and ensured fit to the individual's requirement.

The installed Radio collar (Vectronic Vertex plus- VHF) with drop-off transmitter, weighing 750 g was imported from Vectronics Aerospace (Germany) (Iridium satellite

technology) and the tracking receiver module (TR8 VHF receiver along with RA23K antenna) was imported from Telonics in the United States. The Radio collar transmits signals which include GPS coordinates of animal presence and the receiver module gains data within maximum proximity tracking distance. Morphometrics were taken and the vital samples including blood were collected for laboratory analysis like hematology and parasitology studies. To reverse the effect of anesthesia, Yohimbine hydrochloride was administered. The entire process was completed within 45 minutes and post-collaring, the animal was released back safely. Post release the captured individual urinated twice and the foraging activity and movement appeared animal and no signs of stress were observed

This Radio Collaring activity will provide the movement data of Nilgiri Tahr including its home range distribution, physical activity like fodder preferences, exploratory and breeding behavior. It is planned to radio collar eight individuals of Nilgiri Tahr in near future. The telemetry studies in the elusive mammal like Nilgiri Tahr helps to study the local movements, seasonal landscape use

pattern, dispersal and local migratory routes in the connecting landscapes, estimate home range, habitat use and selection, estimate population abundance, examine intra- and inter- specific relationships and survival. These activities provide abundance data and helps to understand the habitat ecology of Nilgiri Tahr.



PHOTO GALLERY



Indigenous people day celebrated at Government Higher Secondary school , Coimbatore



Van Mahotsav week celebration at KMTR



A young one leap over a stream at Grass Hills National Park



A female Nilgiri Tahr nursing its young one at Anamalai Tiger Reserve

POSTER VLOG



AVIFAUNA OF NILGIRI TAHR HABITAT

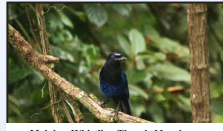
N. Rajeshkumar, Senior Research Fellow, Project Nilgiri Tahr (For Design and Photo Courtesy)



Nilgiri Pipit *Anthus nilghiriensis*



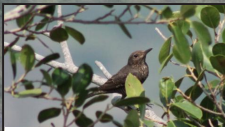
Nilgiri Sholakili *Sialotoca major*



Malabar Whistling Thrush *Myophonus horsfieldii*



Nilgiri Flowerpecker *Dicaeum concolor*



Blue Rock Thrush *Monticola solitarius*



Loten's Sunbird *Cynnyris lotenii*



Yellow-browed Bulbul *Acritillus indica*



Red-rumped Swallow *Cecropis daurica*



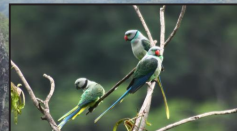
Common Iora *Acriditha tiphia*



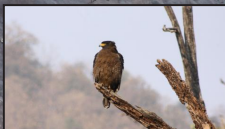
Indian Peafowl *Pavo cristatus*



Great Hornbill *Buceros bicornis*



Malabar Parakeet *Psittacula columboides*



Crested Serpent Eagle *Spilornis cheela*



Asian Fairy-bluebird *Irena puella*



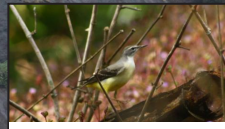
Grey Junglefowl *Gallus sonneratii*



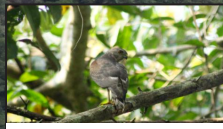
Greater Racket-tailed Drongo *Dicrurus paradiseus*



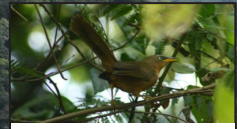
Indian Scops Owl *Otus bakkamoena*



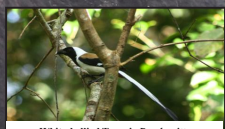
Grey Wagtail *Motacilla cinerea*



Shikra *Accipiter badius*



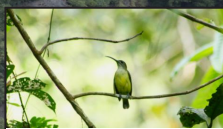
Rufous Babbler *Accipiter badius*



White-bellied Treepie *Dendrocincla leucogastra*



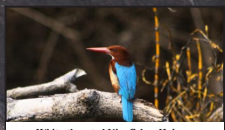
Greater Flameback *Chrysocolaptes guttacrissatus*



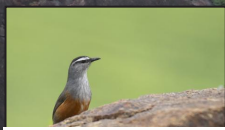
Little Spiderhunter *Arachnothera longirostra*



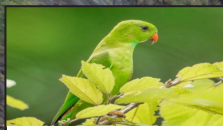
Red-whiskered Bulbul *Pycnonotus jocosus*



White-throated Kingfisher *Halcyon smyrnensis*



Palani Laughingthrush *Montocincla fairbanki*



Vernal Hanging Parrot *Loriculus vernalis*



Coppersmith Barbet *Ptilinopus haemacephalus*



NILGIRI TAHR

Habitat Ecology of Nilgiri (*Nilgiritragus hylocrius*)

(Ogilby, 1838)



Grasslands and Shrublands

The Nilgiri tahrs have evolved to thrive in montane grasslands situated on the elevated plateau at approximately 1500 meters in the Nilgiri region. The habitat of these tahrs encompasses various grass species such as *Themeda*, *Chrysopogon*, and *Arundinella*.

High Elevation Forests

The Nilgiri tahr inhabits areas at high elevations, typically between 2,000 and 2,600 meters above sea level. The vegetation at these elevations includes montane forests with a mix of evergreen and temperate species

Rocky areas

Rocky terrain, such as inland cliffs and mountain peaks, serves as a habitat for Nilgiri tahrs. Typically, during midday, herds rest in the shaded areas of cliff faces, which also provide cover for tahrs when they need to evade predators.

FACTS ABOUT NILGIRI TAHR

- There are only three Tahrs in the World- Nilgiri Tahr (*Nilgiritragus hylocrius*), Himalayan Tahr (*Hemitragus hylocrius*), Arabian Tahr (*Arabitragus jeyakari*).
- The Nilgiri Tahrs are close to the genus 'Ovis' and are phylogenetically more related to Arabian Tahr than the Himalayan Tahr
- The Nilgiri Tahrs have horizontally oriented pupils
- In Tamil Nadu, Nilgiri Tahr habitats are distributed in 13 Forest Divisions, 36 Forest Ranges, 101 forest beats.
- Nilgiri Tahrs occur in elevations ranging from 270 m MSL (Peyyanar Varaiyattu mottai, Tirunelveli Division) to 2630 m MSL (Meeshapulimalai, Theni Division)
- The gestation period of Nilgiri Tahr is six months.
- Weaning period of Nilgiri Tahr is about six months.





A Publication by
Project Nilgiri Tahr



pd.pnt@tn.gov.in



<https://tnprojectnilgiri-tahr.com>



Project Nilgiri Tahr Office,
Near Genetics building,
Bharathi Park road, Forest
campus,
Coimbatore-641043



projectnilgiritahr