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NILGIRI SPECIAL

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# Environ

## NILGIRI TAHR

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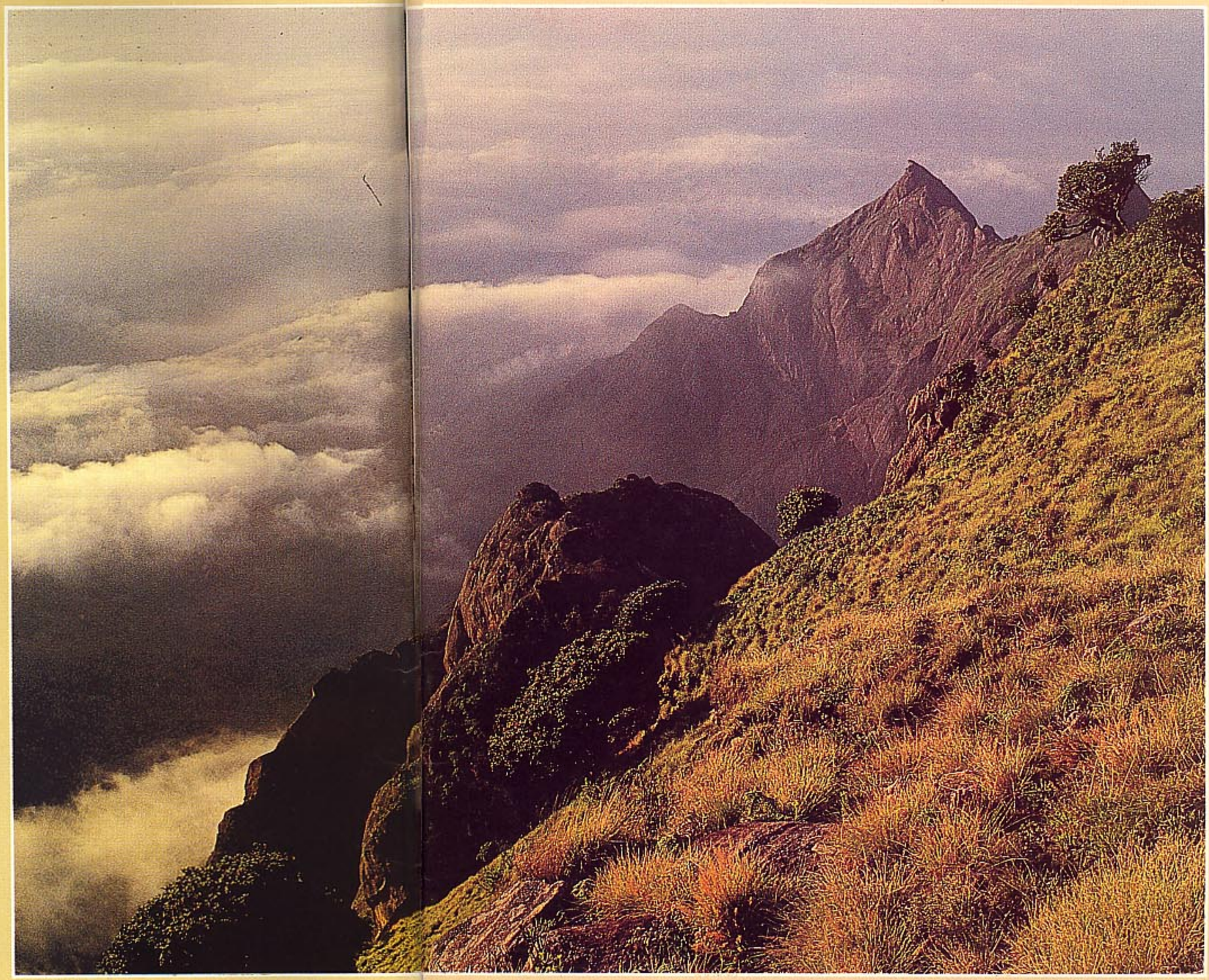
Cover Photograph **Ian Lockwood**

# South India's Elusive Nilgiri Tahr

Ian Lockwood

Far south of the Himalayas, running parallel to the fabled Malabar coast are a range of mountains whose existence is often obscured by their majestic but far younger northern neighbours. The Western Ghats, despite their uncelebrated nature, host one of India's highest concentrations of biodiversity and play a critical role in water regulation for peninsular India. These mountains are home to several unique species of wildlife. The Nilgiri tahr, perhaps more than any other animal, symbolizes the struggle for wildlife and biodiversity conservation in the Western Ghats. Their story, like that of their mountain habitat, illustrates promise and peril for conservation in these little known mountains.

Nilgiri tahr *(Hermitragus hylocrius)* are the only mountain goats found in southern India. Mistakenly called ibex by hunters, Nilgiri tahr are appropriately



***Nilgiri tahr habitat, Palani Hills*** *Ian Lockwood*

named Varai aadu or "cliff goat" in Tamil. They live in the highest reaches of the Western Ghats along the Tamil Nadu-Kerala border. Their habitat, consisting of precipitous cliffs and rolling highlands, are some of the grandest, least accessible terrains in southern India. The range of Nilgiri tahr stretches from the Nilgiri Hills southward to the Ashambu Hills near Kanyakumari.

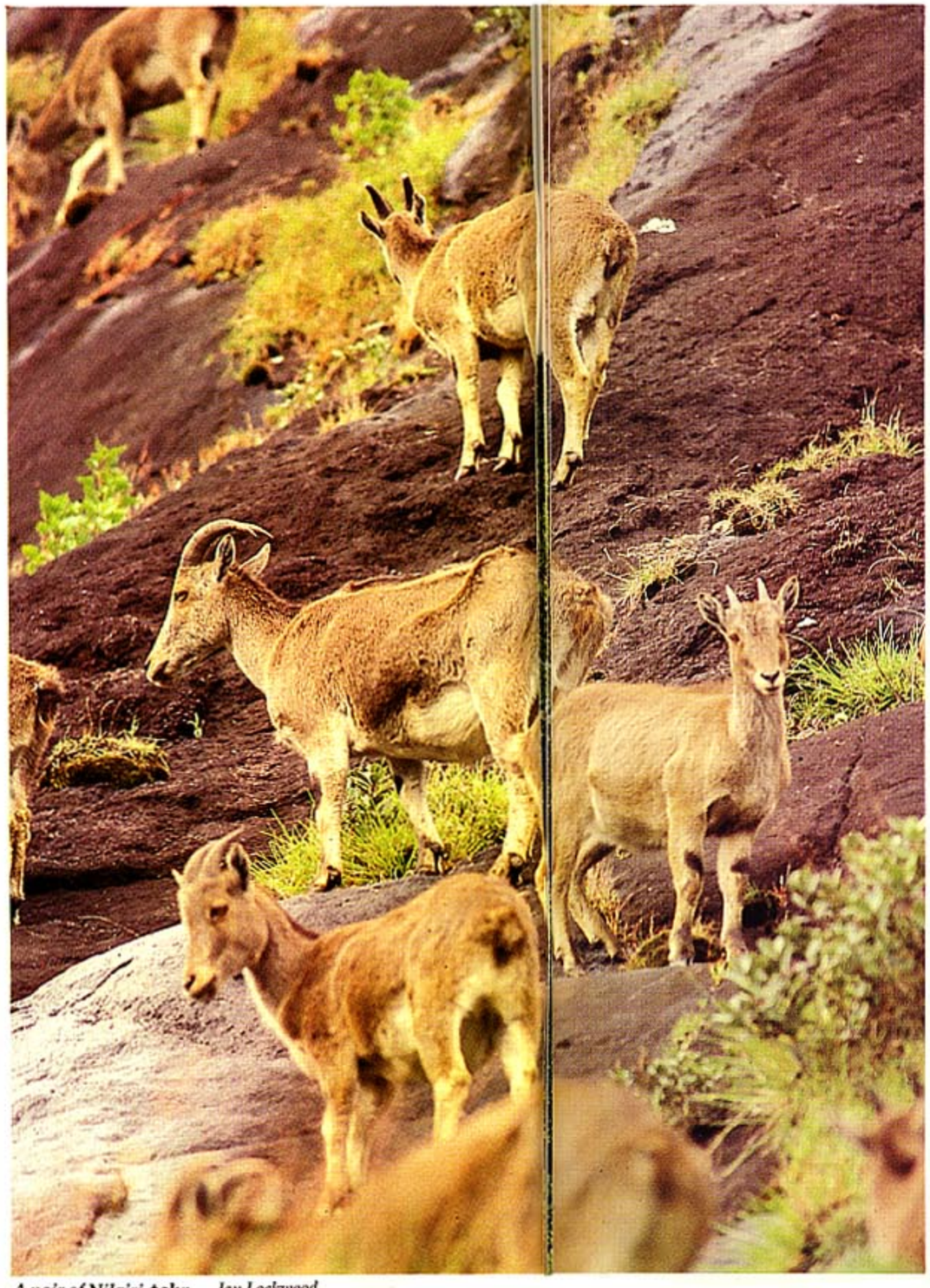
There was a time not so long ago when these elusive ungulates were plentiful in the mist-laden mountains of southern India. Today there are only two viable populations of tahr surviving in Kerala's High Range and the Nilgiri Hills of Tamil Nadu. Smaller, more threatened groups survive in the Anaimalai Palani and Highwavy Hills.

In the last hundred years poaching, hunting and habitat loss have greatly reduced their numbers. During British rule and in the post-independence years these animals were pursued and hunted with great zeal. Legal hunting of tahr along with all other forms of wildlife was outlawed by the Wildlife Protection Act of 1972. Despite these noble efforts, populations of less than sixty tahr now struggle to survive in areas that were once occupied by thousands of their kind!

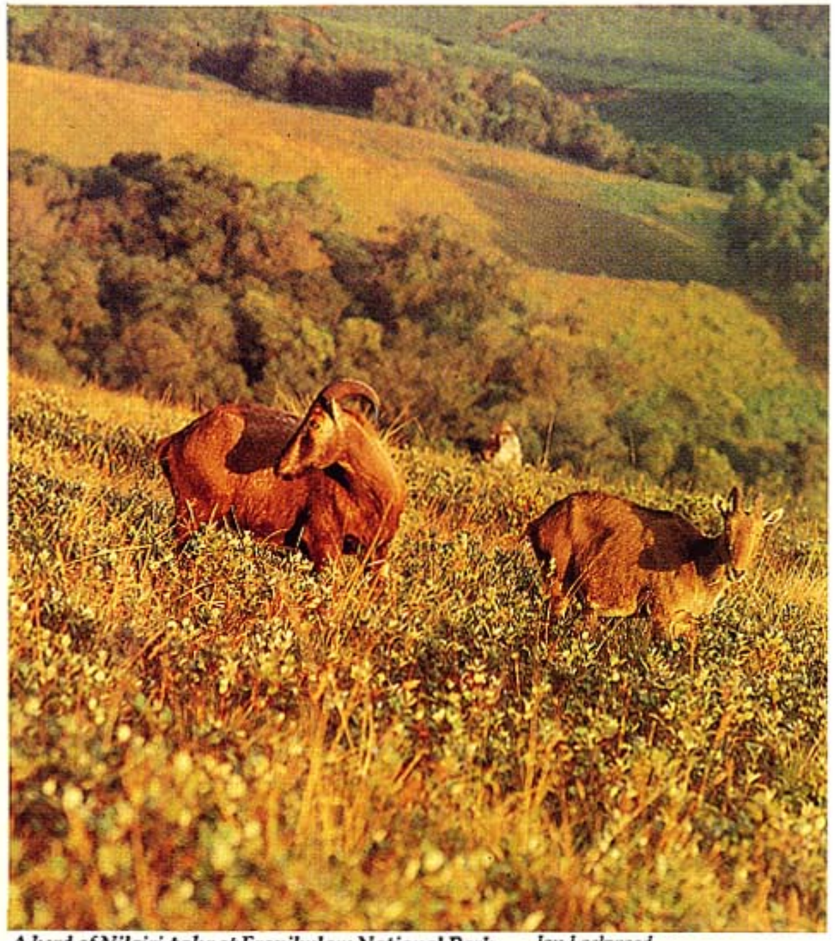
The Niligiri tahr is listed as endangered in the IUCN Red Data Book. Their total wild population is estimated at no more than 2500 individuals. Habitat loss has been a major problem and many high altitude plateau areas that once supported tahr and other wildlife have been forested with commercial plantations of exotic trees. Poaching is still a problem in almost every tahr habitat outside the High Range. Armed marijuana planters, growing their illegal crops along the steep escarpments, pose a potent threat to the smaller isolated populations of tahr. Tahr in these areas are exceptionally wary of people and only with luck and patience can one glimpse them.

Nilgiri tahr belong to a genus of wild capride (sheep and goats) which is thought to have once existed between Europe and the Eastern Himalayas. Today only two other sub-species of tahr exist: the Arabian tahr found in Oman and the Himalayan tahr found between the Pir Panjal and Bhutan. It is speculated that at some earlier time, when climatic conditions were cooler, tahr migrated across plains of India to the Western Ghats. It is probable that in earlier times the range of Nilgiri tahr was wider, but as humans moved closer to the hills, tahr confined themselves to the highest, least accessible ranges of the southern Western Ghats.

Nilgiri tahr are sturdy mountain goats, weighing between 80 and 100 kg. They have evolved to suit their relatively warmer climates and their pelage, or coats, are shorter than those of the Himalayan tahr. The horns of Nilgiri tahr are short and pointed and



*A pair of Nilgiri tahr.* Ian Lockwood



*A herd of Nilgiri tahr at Eravikulam National Park* Ian Lockwood

*A herd of elephants crossing a tea garden.* Ian Lockwood

do not sweep out like those of the Himalayan tahr. Mature adult males are significantly larger than females. The pelage of females and juveniles is light grey. In contrast, males are dark brown with a lighter, grizzled patch on their back, which gave hunters reason to call them "saddlebacks".

Tahr usually associate in herds of six to twelve, but these groups often swell to much larger numbers. In the High Range it is not uncommon to find groups of a hundred or more individuals. Saddlebacks and sub-adult males often leave the herds to roam in bachelor groups of four or less. They rejoin the female and juvenile tahr during the rutting season at the time of the south-western monsoon.

**Not so long ago these elusive ungulates were plentiful in the mist-laden Nilgiris. Now only two viable populations of tahr survive.**

Nilgiri tahr live along the high escarpments that are typical of the southern Western Ghats. They generally prefer the high altitude areas, between 1200 and 2600 metres, though there have been several tahr sightings at lower altitudes. Often, in an undisturbed habitat, they leave the protection of the cliffs to graze on the grasslands of the upper plateaus. Here they are more vulnerable to predators and thus tahr rarely stray too far from the safety of cliffs. Their agility, sharp sight and cliff habitat are their best defence. Predation of tahr is rare, but leopards, dhole (Indian wild dog) and sometimes tigers make occasional kills.

For many years little was known about the behaviour of Nilgiri tahr, due to their unapproachable cliff habitat and wariness of humans. Most early accounts came from British shikaris, who pursued the agile tahr with great enthusiasm (often losing their prey having shot them off precipitous cliffs). In the 1960s a Madras lawyer-turned-naturalist, E.R.C. Davidar, conducted the first census of Nilgiri tahr. In 1969 George Schaller, the well-known wildlife biologist of the New York Zoological Society, did a short study on tahr. His meticulous observations on Nilgiri tahr were published in the *Journal of the Bombay Natural History Society* and are further cited in his book *Stones of Silence*.

Despite Davidar and Schaller's work, little was known about the behaviour and, in particular, mating habits of Nilgiri tahr. Besides being naturally wary of people, the tahr's annual rut comes during the torrential south-western monsoon. Rain and mist during these critical months makes observation of tahr next to impossible. The work by Schaller (who has a reputation for having initiated studies on some of the world's most endangered wildlife) was soon followed up by a more thorough investigation. In the late 1970s Clifford Rice of Texas A&M University conducted what became the most comprehensive study of Nilgiri tahr.

Rice's two year study in the High Range of Kerala did much to shed light on th socialorganization behaviour and mating habits of tahr. After initially being frustrated by the reluctance of tahr to allow close observation, Rice borrowed a trick from the old hunters of the High Range. He placed salt licks near to known grazing areas, and gradually won the trust of the elusive tahr. The trick worked and he used the salt licks to gain access to several herds of tahr. Having "bribed" the tahr, Rice was able to follow groups closely, making detailed observations of their movements and behaviour.

What Rice learned about their behavioural patterns, social organiation and habits wasstartling.He observed the often violent competition between saddlebacks, fighting for dominance and the right to mate. He followed cycles of birth noting several interesting occurrences. For example, when females lost their young to a predator or to natural causes, Rice observed them mating again outside of the normal monsoon rutting season! Thus Rice says) Nilgiri tahr females maximize their reproductive output, not by multiple births (as most other wild sheep and goats do), but by conceiving and giving birth again if their first effort fails.

In recent years tahr have been regularly censused in both Kerala and Tamil Nadu. The Nilgiri Wildlife and Environment Association recently undertook a two-year study of tahr in cooperation with Virginia Tech University. The study conducted by Stephen Sumithran, a doctoral candidate, was centered in Mukkurthy National Park on the western escarpment of the much abused Nilgiri plateau. Sumithran's findings should be published as part of his doctoral thesis shortly.

Clifford Rice's study was conducted in Eravikulam National Park, an obscure sanctuary that now holds the fate of India's Nilgiri tahr. Situated in Kerala's High Range, Eravikulam is home to more than half of the estimated 2500 Nilgiri tahr. Almost every other wildlife sanctuary or national park in India is faced with incessant encroachment and poaching. Eravikulam has been spared of these difficulties and poaching. Eravikulam has been spared of these difficulties by virtue of its proximity to nearby tea estates (which, of course, are generally not thought of as eco-friendly industries)! The success of conserving tahr in Eravikulam underscores the importance of involving private groups in wildlife conservation. This cooperation between a local environmental group, commercial entities and wildlife officials could be a model for other sanctuaries and national parks in India.

Tea was first introduced to the High Range (then called the Kanan Devan Hills) by Scottish planters in the latter part of the 19th century. Undeveloped valleys of thick tropical forest were cleared and converted into what later became successful tea estates. Higher plateau and cliff areas, the habitat of Nilgiri tahr, were left untouched because of their unsuitability for growing tea. These areas were set aside for carefully managed hunting. What is now Eravikulam National Park was the largest and best preserved of these plateaus. Strict rules guided those with permission to hunt and thus wildlife populations were always kept in balance.

Eravikulam remained a private hunting reserve until 1971 when the State Government of Kerala turned it into a wildlife sanctuary. It became Kerala's first national park in 1978 (Silent Valley, site of the successful anti-dam movement is the second and only other national park in Kerala). After 1971 the tea estates continued their support for Eravikulam's conservation through the High Range Wildlife and Environment Preservation Association. The association still supports tribal park guards and its members

*Nilgiri tahr – A female with a new born* *Ian Lockwood*

take part in annual "boundary checking" exercises. It has also been involved in identifying other areas for protection and is currently leading an effort to replant indigenous shola (tropical evergreen) trees in tea estates. Most importantly the tea estates are crucial because they provide a natural buffer zone around the accessible parts of Eravikulam National Park.

Many of Eravikulam's Nilgiri tahr live within a short distance of the bustling tea planting town of Munnar. Just north of Munnar, high above verdant valleys of tea, towers Anai-Mudi and the Eravikulam plateau. Anai-Mudi at 2695 metres is the highest mountain in India south of the Himalayas. Its near vertical granite cliffs form part of Eravikulam's southern boundary and provide a misty, well protected home for tahr.

On Anai-Mudi's lower slopes, where cliffs and steep grassy slopes meet tea plantations, lies Eravikulam's "tourist zone." The hillside is covered in wild grasses that are occasionally interrupted by patches of shola forest. Elephants wander in the tea estates below and the sholas often resonate with the deep call of Nilgiri langur. In 1994, these hills were covered by the mauve flowers of the kurinji plant *(Stobilanthes kunthiana)*, which bloom every twelve years.

To the astonishment of anyone who has tried to observe them anywhere outside the High Range, tahr can be observed at a very close proximity in Eravikulam's tourist zone. In fact the tahr are seemingly tame and wander freely without apparent inhibition within feet of vehicles and visitors! They are lured down from the cliffs by salt licks which are maintained by the wildlife department. Though they appear unperturbed by humans within the tourist zone's small boundary, these same tahr revert to their characteristic wary ways when encountered anywhere else in the park!

Unfortunately tahr are becoming unnaturally used to human beings. To make matters worse, the park's tourist zone is being overwhelmed by more visitors than it can hope to accommodate. Many tourists, forgetting that tahr are wild animals, harass them unnecessarily. Tourists, some of whom come to this area to get intoxicated, throw trash carelessly. In a frightening development tahr have recently been seen eating banana peels, plastic bags and other articles of trash in the tourist zone.

Kerala's is fortunate to have one of India's most committed, professional wildlife departments. Together with the High Range Wildlife and Environment Preservation Association they are desperately trying to devise ways to avoid conflicts between people and animals on Eravikulam's slopes. Entrance rates have been raised and there is discussion about reducing the amount of salt put out for tahr. While there is a desire to give visitors the opportunity to see these

*A large herd of Nilgiri tahr at Eravikulam National Park.*

Ian Lockwood

very rare mountain goats there is increasing frustration with the poor manners that some tourists bring with them. Clearly there is a need to manage the number of tourists and also to give them some sort of basic wildlife education before they enter the park.

Wildlife and their habitats are dwindling in the Western Ghats. Hills are being developed for commercial tree plantations, valleys are being converted into hydroelectric schemes and people are moving into areas that were once the sole preserve of wild animals. In India, where there is severe competition for increasingly scarce land and resources, the conservation of biodiversity must not ignore the basic needs of impoverished people. At the same time the grave implications of destroying irreplaceable wildlife and biodiversity must be carefully considered.

The Western Ghats, besides being a source of tremendous biodiversity, play a crucial role in water regulation for the plains. Commercial plantations of pine, wattle and eucalyptus trees in the hills, destroy wildlife habitats and have dried up once perennial streams. This in turn has greatly increased the risk of drought on the arid plains lying east of the Western Ghats. Conservation of original vegetation and wildlife is crucial for the larger arid plains area which depend on the mountains for water. As environmentalists in the Palani Hills so aptly put it,"the health of the hills is the wealth of the plains.'

*Kurinji flower which blooms every twelve years.*

Ian Lockwood

The Nilgiri tahr is an indicator species for the high altitude mountains of the Western Ghats. Their survival and that of their mountain habitat is critical to the surrounding plains which depend on the mountains for water. Eravikulam, despite its problems with increasing numbers of tourists, still offers the best protection for tahr. Conservation in Eravikulam has been a success and it is the only place where the numbers of Nilgiri tahr are increasing. Other Nilgiri tahr habitats in the Nilgiri, Anaimalai and Palani hills would be wise to emulate Eravikulam's successful conservation efforts by involving local organizations in their efforts.

*Ian Lockwood is a wildlife photographer and conservationist based in Bangladesh.*