

# Naraikadu: Where citizens conserved a forest for 100 years

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• The forest department of Tamil Nadu does not have the ownership of the Naraikadu forest, inside the core area of the Kalakkad-Mundanthurai Tiger Reserve. A fine example of community-based conservation, at the Naraikadu forest the Dohnavur Fellowship has conserved the native biodiversity since 1917. Earlier it was a cardamom plantation.

The fellowship has been recording weather-related data meticulously for decades, and this could give an idea of what trajectory climate change could take in the tiger reserve.

We set out before dawn to escape the cruel summer heat of the Tirunelveli plains. By sunrise we had already gained altitude and entered the dense deciduous forests of the Kalakkad Mundanthurai Tiger Reserve (KMTR) – an 895 square km tiger reserve which lies in the southern Western Ghats. The KMTR is part of the inter-state (Kerala and Tamil Nadu) Agasthyamalai Biosphere Reserve and the reserve's core region is noted as one of five centres of biodiversity and endemism by the [International Union for Conservation of Nature](#) (IUCN).

As we walked through the forest it was clear why such a status was awarded to this region. The KMTR fortunately seems to have escaped invasive plants such as *Prosopis juliflora* and *Lantana camara* as well as any major cash crop plantations that plague most of the Western Ghats, especially in Tamil Nadu.

My guide, 65-year-old Michael (goes by only his first name) from Malaiyadiyathur, located just outside the reserve, was putting me to shame with his long strides, trained by a lifetime of roaming the Ghats as a cattle-herder. Despite visible symptoms of varicose veins, it was as if the lanky-framed Michael was having a stroll in the park—one that he seems to know every nook and cranny of—while J Amos, who was carrying our food and I were huffing and puffing our way up the mountain.

Michael leads the trek to Naraikadu. Photo by Sibi Arasu.

We were enroute to Naraikadu or the Grey Forest. A 40-acre private property within the core forest area of the KMTR, which unlike anywhere else, the forest department is happy to let remain in private hands. This is because the conservation practises in Naraikadu have been as effective, if not more than those of the department itself. The plethora of endemic flora and fauna that have been identified here are testimony to this.

## One hundred years and counting

The custodians of the Naraikadu forest are the Dohnavur Fellowship, located at the foothills of the Ghats here. The forest is a five km drive and then a nine km trek from the fellowship's premises. The fellowship was established by Irish missionary Amy Carmichael in 1901, and is an organisation that unequivocally views religion through the prism of nature.

"In our church we have only the Cycad plant, known for its ancient origins," said Jeremiah Rajanesan, who oversees the fellowship's functioning today. The organisation was established by Carmichael as a centre for orphans and a safe home for children who were subject to the **devadasi** practice in the early 1900s.

*The Dohnavur Fellowship compound in Dohnavur village, with the Agasthyamalai range in the background. Photo by Sibi Arasu.*

The church inside the Dohnavur Fellowship compound in Dohnavur village. Photo by Sibi Arasu.

"Naraikadu was a natural extension of this idea," Rajanesan added. "Carmichael was so inspired by the forests and wanted the children here to experience and love nature. She also wanted all of us to get relief from the searing heat and recuperate. Hence, she started scouting for land and eventually found and bought Naraikadu in 1917 for 100 pounds. It has remained with us ever since."

From Carmichael's time until today, the fellowship has preserved the pristine nature of the Naraikadu forests. Apart from the construction of five houses within the forest (all of them done in the early years), they have not made any significant change to the forest or its natural ecosystem. The forest department has also understood the value of their efforts and has provided support whenever required.

[The Jewel House building deep inside the Naraikadu forest. Photo by Sibi Arasu.](#)

"In the entire Ghats, Naraikadu is one place where the biodiversity is intact. I believe Naraikadu is a great example of a successful public-private partnership in environmental conservation," said H Malleappa, a senior officer with the Tamil Nadu Forest Department. Even during the drafting of the Indian Wildlife (Protection) Act, 1972, when many private properties were brought under the forest department, Naraikadu was allowed to remain under the fellowship because of their extraordinary efforts to protect the valley.

The Naraikadu valley with its dense forest cover. Photo by Richard Selva Singh.

It is this perseverance in conservation that has attracted many researchers to the Naraikadu forests. Richard Selva Singh, a professor of botany at the Madras Christian College and co-author of *Naraikadu – an Eden in the Western Ghats: Then and Now*, told Mongabay-India, "It was an abandoned cardamom estate when they bought it. They just left the forest undisturbed and in due course of time it returned to its natural glory."

"When you don't disturb a place, obviously nature will reclaim its property back. There will be dispersers, pollinators, and in due course it'll become a jungle. The fellowship has protected this place, thus enabling this process," Singh added. He and his colleague Hopeland P., an independent wildlife researcher, have documented the biodiversity present in Naraikadu and are the latest in an illustrious list of naturalists who have discovered and documented endemic species in this region and specifically in Naraikadu.

## The power of observation

While the forest is as glorious now as it ever was, the fellowship was in its heyday in its earlier years. It seems to have been a pit stop for the who's who of the colonial hierarchy who were stationed or visited the region of Tirunelveli in Tamil Nadu's deep south. Among its visitors and residents in the past were T. H. Somervell, Godfrey Webb-Peploe and Edward Barnes. Somervell, a surgeon by profession, was an Olympic (Paris, 1924) gold medallist and part of the 1922 British expedition to scale the Mount Everest. Barnes was one of the first curators of the Madras Christian College in Chennai as well as a keen ornithologist who published one of the earliest checklists of birds in the region.

The Sahyadri birdwing butterfly (*Troides minos*) that is endemic to the Western Ghats. Photo by Richard Selva Singh

A Malabar pit viper in the Naraikadu foliage. Photo by Richard Selva Singh.

Webb-Peploe, who was also known as Devasamathanam Annachie, has left the deepest impression on the fellowship's conservation ideals. Before his untimely death at the age of 40, Webb-Peploe, a naturalist, had documented over 1,000 plant species in this region. He also published the Field notes on the Mammals of South Tinnevely, South India in 1947 with the Bombay Natural History Society (BNHS). This is the first mammal list for this entire region.

"It is impossible for me to imagine someone so young to have done so much work in observing and documenting. This is a real inspiration for me," Hopeland, co-author of the book on Naraikadu said. "Godfrey has recorded a few species of orchids and named them after Amy in Naraikadu. We found out that these orchids were recorded as being discovered in scientific literature only in later times. He has also recorded a species of damsel fly that has been observed only here. In fact, he is the only person to have recorded it, no one else seems to have seen it since. Even I'm searching for it."

Among the plant species observed here is the critically endangered [Paphiopedilum druryi](#), an orchid species endemic to this region. A few other rare plant species that are recorded here include the critically endangered [Jambosa courtallensis](#), a small tree which is also endemic to this region. This was sighted by Webb-Peploe but has not been seen since. Some of the species discovered here have been given the forest, the fellowship or its founder's names. These include the [Naraikadua charmichaelae](#), a grasshopper that was the first species described here in 1937 and the [Milliusa ammaaii](#), a plant found here.

The fauna found here include elephants, sambar deer, wild dogs, leopards, sloth bears, otters and grey langurs as well as birds such as the nightjar, quails and grey francolins.

*Milliusa ammaaii* plant in the Naraikadu forest. Photo by Richard Selva Singh.

#### **Long-term climate data**

In hindsight, Webb-Peploe's greatest contribution not only to Naraikadu but to researchers, environmentalists and scientists working on the Western Ghats, is the practise of recording rainfall data and day to day changes in weather. While Carmichael had initiated the practise of recording their daily activities and observations in a log book, ever since they bought the property in 1917, it was Webb-Peploe who setup a rain gauge at Naraikadu and began keeping meticulous logs of rainfall. As a result of this, there is a continuous maintenance of weather records and rainfall data from the mid-1920s up to the present day.

[Michael takes the rain gauge measurements for the day. Photo by Sibi Arasu.](#)

"This meticulous log that they have kept is amazing," Hopeland exclaimed. "They have recorded not only rainfall but everything from fire instances, bird and animal sightings, and other climate data. The challenge now is to protect and harvest these decades of data. We have to use it to understand present scenarios and challenges such as climate change better," he added. "The Naraikadu forests and the log books are both a real treasure trove."

By keeping track of the past, the data at Naraikadu can explain the present and also shed light on what can be expected through climate change in the future.

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