

# Keep calm, it's all palm!

The Ram Hattikudur Advanced Training in Conservation (RHATC) places a strong emphasis on practical learning and recognizing its importance in understanding ecological conservation. We embarked on an exhilarating and hands-on learning expedition to Vagamon, Kerala. Located at an elevation of around 1,200 m, the place has an amazing landscape destroyed by artificial turf-like tea plantations the first of which were established way back in the 1860s. The beautiful grasslands at the hilltops along with the serene mist were an absolute joy to encounter.

This immersive trip was not just a journey, it was an exploration into the heart of biodiversity. The trip provided a unique setting for us to apply our theoretical knowledge in a real-world context. The rich biodiversity of the Western Ghats with the guidance of Dr. Sanjay

Molur, RHATC course director, and H. Byju, RHATC mentor, allowed all of us to witness diverse ecosystems.

## A heck of a trek

On 05 December 2023 we went for a 12 km long trek on the Vagamon hills. It was a mesmerizing open landscape having rocky patches interspersed with grasses, and mostly shrubs and medium-sized trees. Not surprisingly, we also came across a lot of invasive species like *Eupatorium*, *Lantana*, and *Parthenium*.

Smiling wide at the foggy sight.  
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The picturesque tea plantations. © S. Joel.



Some of the other plant species we observed during the trek were *Bulbophyllum* sp., *Dendrobium* sp. of orchids, and *Cymbopogon* sp. of grass. We were also elated to find the endemic and endangered palm trees on the rock cliffs of the mountain like:

***Bentinckia condapanna* Berry.**

*Bentinckia condapanna* is one of the uncommon, endangered, and indigenous palms found in the forests of southern Western Ghats. Often mixed in with high-altitude evergreen woods or in homogenous brakes. The distribution range of the species is Agastyamala, Kulathupuzha, Peerumedu, Pachakkanaum, Uppupara, Moozhiar, and Peppara (Varghese 1997; Renuka 1999).

Stumbling across rocky cliffs and crossing silent streams, we climbed up the Urumbikkara top point overlooking the beautiful twin rocks that gave an essence of serenity. We encountered three individuals of *Bentinckia condapanna* on

**Studying the native flora.**  
 © B.Ravichandran.



***Bentinckia condapanna* Palm species on the edge of mountain cliff at Kottayam district, Vagamon.**  
 © Sanjay Molur.



**Descending down the hill.**  
 © B.Ravichandran.



**Twin Rocks at Urumbikkara top point.**  
 © C.K. Arjun.



the Urumbikkara hilltop. The place is also one of the last remnants of shola grasslands, being home to patches of native tussock grasses.

During our trek, we spotted the Asian Common Toad *Duttaphrynus melanostictus*, and some butterflies like Sahyadri Dartlet *Oriens concinna*, Long-tailed Blue *Lampides boeticus*, and Blue Tiger *Tirumala limniace*. We heard the soothing calls of Nilgiri Laughingthrush *Trochalopteron cachinnans* but sadly we were unable to spot them. We were also lucky enough to sight a Common Kestrel perched on a rock. The trek concluded with us enjoying some delicious lunch at the spectacular Madammakkulam waterfalls.

#### **Kottathavalam visit**

On 06 December 2023, we began on yet another trek to the picturesque Kottathavalam waterfalls down the steep valleys. The whole path was covered with thick tussock grasses and on the way Dr. Sanjay explained about the native plants and grasses, their importance, and ecological roles. Some of the native species we came across along the way are listed below.

#### ***Crotalaria juncea***

It is an undershrub, annual, and grassland species that grows primarily in subtropical biomes. It is a legume that helps in soil nitrogen fixation. It was abundant in the region.

#### ***Calamus brandisii* Becc.**

It is a clustered palm. Stem with sheath, leaves are about 1-m long. The leaf sheath is green with bristle-

Madammakkulam waterfalls. © C.K. Arjun.



Native grass  
*Chrysopogon* sp.  
© Praveen Rozario.

like spines, leaflets grouped, male and female inflorescence are longer, and slender fruits are ovate. *Calamus brandisii* is distributed in Agasthyamala in Kerala, Kalakkadu, Muthukuzhivayal, and upper Kothayar in Tamil Nadu. We observed it in the Kottayam District of Kerala. There were many individuals, all scattered in the population.

***Dillenia pentagyna***

A deciduous tree that grows primarily in the wet tropical biome. It is widely distributed and native to the Indian subcontinent. The tree was standing tall amidst the grasses at the slopes.

***Arenga wightii* Griff.**

It is distributed in the evergreen forest at 300– 1,000 m elevation, on the way to Peerumedu, Dhoni, Wayanad, Nellyampathy, Neriamangalam, Muthikulam, Attapaddy, Kottiyur, and Sholayar. We observed this palm while trekking to Kottathavalam waterfalls, Kottayam District, Kerala. There were three individuals.

**Other observations**

The phenomenal landscape of Kottathavalam waterfalls was filled with numerous odonates like Common Sailor *Phaedyra columella*, Three-spotted Grass Yellow *Eurema blanda*, Stream Glory *Neurobasis chinensis*, and Ruddy Marsh Skimmer *Crocothemis servilia*.

**Threats**

The landscape is under threat due to changes in the land use pattern and anthropogenic activities rapidly escalating because of the



**Native Legume**  
*Crotolaria juncea.*  
 © C.K. Arjun.



***Phoenix pedunculata***  
 - Palm species in  
 midst of the grasses  
 on the mountain.  
 © Sanjay Molur.



***Arenga wightii* Palm.**  
 © Sanjay Molur.



**Common Sailor**  
*Phaedyra columella.*  
 © B. Ravichandran.



**Three-spotted Grass Yellow**  
*Eurema blanda.*  
 © B. Ravichandran.

constant demand for monocultural products like tea and rubber. The rapid growth of invasive plant species and lack of knowledge about plants in general are also major threats.

### Conclusion

It was heartbreaking for us to encounter the sight of vast tea plantations stretching across hectares of land, creating a monotonous sea of tea. In areas without the tea plantations, invasive plant species held their dominance, erasing the memory of native plants and trees from the picture completely. Venturing into areas with minimal human interference along our trek, we encountered thriving native vegetation, offering a stark contrast to the invasive-dominated areas. We also stumbled upon an abandoned tea plantation that had been abandoned for over 30 years and was now nearly concealed by, hopefully, native grass species. Witnessing these changes filled us with joy and instilled hope for the rejuvenation of the landscape, envisioning a return to its forgotten natural splendour.

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