

# EXPERIMENTAL INSIGHT: A RESEARCH TRIP THROUGH PRACTICAL LEARNING

## Vulture Venture

Around 30 km east of Udhagamandalam (Ooty) in the Nilgiri District, Tamil Nadu within Mudumalai Tiger Reserve resides a beautiful landscape called "The Moyar Gorge" which connects the Western Ghats to the southernmost part of the Eastern Ghats. The Moyar gorge bears rich riparian forest and is home to rich faunal diversity (Nagarajan & Bhaskar 2023). On 27 November 2023, the RHATC fellows went to venture with vultures accompanied by wildlife researchers H. Byju and Dr. S. Manigandan; they have been studying vultures since 2016. Byju serves as an executive board member of the Wildlife Information Liaison Development (WILD) Society and is also the author of wonderful books 'Valley of Hope – Moyar' and 'Vultures and The Matriarch: autobiography of an Elephant'.

Vultures have a very acidic gut which enables them to feed and digest carcasses (Manigandan et al. 2021). Being scavengers, vultures are also called the cleaners of the ecosystem (Green et al. 2004) because they prevent the spread of deadly diseases like rabies and anthrax (Prakash et al. 2003). There are four species of vultures found in southern India, namely, White-rumped *Gyps bengalensis*, Long-billed *Gyps indicus*, Red-headed *Sarcogyps calvus*, and Egyptian *Neophron percnopterus* (Manigandan et al. 2021). Unfortunately, their populations have declined by more than 95% within 10 years (Prakash et al. 2003), and White-rumped Vulture, Long-billed Vulture, and Slender-billed Vulture *Gyps tenuirostris* have been assessed as Critically Endangered as per IUCN Red List Categories. The major threat to vultures is due to anthropogenic activities and the veterinary usage of NSAIDs (Non-steroidal



**Fellows at Moyar Gorge. © Sanjay Molur.**

anti-inflammatory drugs) like diclofenac used for treatment of livestock diseases (Green et al. 2004). Vultures feeding on carcasses of livestock treated with diclofenac caused renal disease showing extensive visceral gout with deposits of uric acid on and within internal organs (Green et al. 2004). As part of conservation initiatives of threatened vultures, diclofenac use for livestock treatment is banned in India (Senacha et al. 2008).

The fellows had an amazing experience to see these phenomenal scavengers at their prime, hovering and scanning their surroundings for food. The vulture experts taught the fellows basic identification keys and identified three species of vultures, namely, Red-headed Vulture, White-rumped Vulture, and Long-billed Vulture.

Later, the fellows visited the Moyar gorge and had a look at the riverine-forest habitat and witnessed charismatic trees like Arjuna tree *Terminalia arjuna* along the river banks. The rest of the gorge typically has dry deciduous vegetation due to the leeward effect. The fellows were overjoyed to spot two Elephants *Elephas maximus* grazing in the gorge along



**RHATC fellows looking at the MM Hills and BRT surrounding the HNF interpretation centre. © C.K. Arjun.**



**HNF team instructing about the usage of Gujarat boilers.**  
 © Trisa Bhattacharjee.

with Spotted Deer *Axis axis* and Indian Gaur *Bos gaurus*. Watching vultures close by was an amazing opportunity and getting to know personalities like Byju and Manigandan working for the conservation of these vulture species is a privilege.

### **About Holématti Nature Foundation**

For a hands-on experience, the RHATC fellows visited The Holématti Nature Foundation (HNF; Holématti, is a fusion of two words – ‘holé’, denoting a stream, and ‘matthi’, meaning Arjuna Tree *Terminalia arjuna*) situated in Hanur, Chamarajanagara District, Karnataka.

The fellows met Dr. Sanjay Gubbi and his team, who are focusing on preserving the rich tapestry of wild landscapes and diverse species native to Karnataka, employing a multifaceted approach towards conservation. After engaging with the team the fellows came to understand the prolonged population studies on Elephants, Leopards, Tigers, and their prey species; the HNF has partnered closely with the Karnataka Forest Department. This collaboration involves the establishment of new protected areas, the expansion of existing ones, and the identification of vital wildlife corridors.

These efforts aim to protect wildlife habitats and facilitate the movement of wildlife across fragmented landscapes.

Community engagement lies at the heart of their efforts, fostering a sense of shared responsibility for the region's biodiversity. HNF also prioritizes capacity building & awareness initiatives and empowers individuals & communities with the knowledge & skills needed to contribute to conservation efforts actively.

### **RHATC fellows at HNF Information Centre:**

On 28 November 2023, RHATC fellows visited HNF's Nature Information Centre to gain insights about working with the community.

The Holématti Nature Information Centre is situated on the outskirts of the Malai Mahadeshwara Wildlife Sanctuary in the Hanur District of Karnataka and serves as a hub for information about the diverse riverine habitats in and around the region. It emphasizes giving valuable insights into the natural wealth of the area, fostering awareness and appreciation for



**RHATC fellows along with the HNF team demonstrating posters on saving chameleons to the locals.**  
 © V.B. Pannaga.



**RHATC fellows interacting with users of Gujarat boilers. Left: © Narmada Naik. Right: © Sanjay Molur.**

the rich biodiversity of the Sanctuary. The fellows had an amazing educational session with Dr. Sanjay Gubbi took the fellows through an inspiring journey by sharing his career experience. Supported by intense group discussions, one-on-one interactions, brainstorming sessions for conservation planning, and group-wise community outreach planning, the fellows got a wider understanding of on ground challenges and ways to overcome them. The HNF nature information centre was a platform for the fellows to learn the utilization of space. The information centre helps to improve and deepen the educational experience of all visitors by using interactive, paintings, murals, digital art, infographic prints, and hands-on exhibitions in their small and effectively equipped room. The local audience, including visitors, employees of the forest department, instructors, school students, and residents of the neighbouring villages, are always welcomed and information is made easy to understand by having the materials in Kannada (regional language). The centre's philosophy is to bring the community and other stakeholders under the same umbrella by deploying the relevant tools and explaining niche arenas.

The visit to the information centre was followed by an engaging session of working with the communities. The fellows along with the HNF staff visited Ponnachi, a small village located in the Male Mahadeshwara hills range, where for the past couple of years HNF has been actively involved in community conservation. Earlier, the villagers were entirely dependent upon forests for firewood which led to an increase in human-wildlife negative interactions. To reduce reliance on forests, the HNF team has been actively distributing LPG cylinders and stoves along with Gujarat boilers to the villagers at minimal cost. The fellows took part in the distribution of 24 boilers to the locals alongside witnessing the working mechanism of the boilers being demonstrated by the HNF staff. The HNF team along with the fellows also spread awareness to the locals about chameleons and their importance in the ecosystem through an infographic poster.

In the latter part of the day, the RHATC fellows engaged with individuals who received the Gujarat boiler, seeking to comprehend their perspectives on the product. There was a collective positive response from the previous

users and the villagers reported a decrease in their firewood consumption since the arrival of the boilers. As the boilers are accessible to them at only 25% of their original cost, the residents were delighted and eager to make a purchase and they believe that these efforts have significantly improved their way of living. To sum up, HNF exemplifies an effective approach to conservation by involving the community, offering alternative resources, and fostering wildlife and sustainable development.

**Kolekar on Corridors:**

On 30 November 2023, the RHATC fellows acquired an insight into wildlife corridors from Aparna Kolekar, a wildlife researcher at HNF primarily working on corridor ecology, human-

leopard interactions, and studying the impact of linear intrusions (mainly roadways) on wildlife movement. The fellows gained knowledge regarding the wildlife corridors which are connecting matrices of isolated habitats like forest fragments, which will help the animal movement from one patch of habitat to the other.

Corridors help in reducing the negative interactions between humans and animals apart from minimizing inbreeding, facilitating genetic exchange and providing access to resources. An added advantage of corridors is that they aid re-colonization in certain habitats where the species may be endangered or at the brink of extinction.



The fellows with team HNF. © Sanjay Molur.

The fellows also gained insights about the current projects of HNF in the Edyarahalli-Doddasampige corridor that connects the Biligiri Ranganathaswamy Temple Tiger Reserve (BRT) and Male Mahadeshwara Wildlife Sanctuary (MM Hills).

The fellows were then accompanied by the HNF team to visit the Edyarahalli-Doddasampige corridor and encounter the ground realities of the landscape where they noted that the efforts of HNF translated to action. Some major actions that were being implemented were the maintenance of a speed limit of 30 km/h within the forest areas in Chamarajanagara District. Apart from that the team also takes part in outreach programs, distribution of educative posters and handouts for drivers on roadsides, alongside conducting clean-up drives along the corridor, etc. The fellows appreciated the commendable work of installing speed bumps along the corridor road by HNF to reduce over-speeding and roadkills.

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