



Islamiah College (Autonomous)
Vaniyambadi - 635 752



Report on

Institutional Visit cum Educational Tour Report



PG & RESEARCH
DEPARTMENT OF BIOTECHNOLOGY

Organized by

06.09.2023 to 09.09.2023

DEPARTMENT OF BIOTECHNOLOGY

Islamiah College (Autonomous), Vaniyambadi

Institutional visit cum Educational Tour Report – September 2023

The Department of Biotechnology arranged an Institutional visit cum Educational tour for the final year students of B. Sc. Biotechnology to Munnar and Kochi, Kerala from 06.09.2023 to 09.09.2023. Tour was organized following the guidelines laid down by the office of the Joint Director of Collegiate Education, Vellore.

A total of 25 students were accompanied by two faculty members Dr. N.P.M Mohamed Tariq and Dr. N. Shabeer Ahmed along with one Non-Teaching staff Mr. A. Azmatullah. All the students and staffs incharge assembled at the college premises at 8.30 PM on 05.09.2023. After brief instructions regarding the trip, the team left Vaniyambadi. They headed towards Munnar and reached there safely by 10.00 AM on 06.09.2023.

Munnar

Tour team spent the first day of their trip at Munnar. It is a hill station in Kerala, located in the Idukki district. Munnar rises as three mountain streams merge - Mudrapuzha, Nallathanni and Kundala. 1,600 m above sea level, this hill station was once the summer resort of the erstwhile British Government in South India. It is replete with resorts and lodging facilities that fit a wide range of budgets. Sprawling tea plantations, picturesque towns, winding lanes and holiday facilities make this a popular resort town. Among the exotic flora found in the forests and grasslands here is the Neelakurinji. This flower which bathes the hills in blue once in every twelve years will bloom next in 2030. Munnar also has the highest peak in South India, Anamudi, which towers over 2,695 m. It is famous for its tea estates, greenery, blankets of mist forming natural-view points.



Fig 1.Students and staffs at Munnar

Students surveyed plants on each site and divided their findings into three categories Grass, Shrubs and Trees. These Hills have very enormous diversity in angiosperms and other lower groups of plants. The vegetation in the hills is a summation of Montane Grasslands and Shola Forests. The Grasslands cover the plateau and descending slopes above 2000 m. More than three hundred species have been recorded from the grasslands, out of which 51 are endemic to the Montane Grasslands of the Western Ghats. The sites visited by students for survey are as follows

- ✓ *Photo point – Tea estates*
- ✓ *Mattupetty dam*
- ✓ *Echo point*
- ✓ *Kundala lake*
- ✓ *Top station*



Fig 2. Students surveying plants in different sites at Munnar

The major grass species found in this area are

- *Andropogon lividus*,
- *Arundinella* spp
- *Digitaria* spp and
- *Sehima nervosum*

The dominant shrubs found on the slopes are

- *Strobilanthus* sp
- *Ageratina adenophora*
- *Gaultheria fragrantissima* and
- *Hypericum mysorense*

The common tree species found in the shola are

- *Michaelia nilagirica*
- *Elaeocarpus recurvatus*
- *Microtropis ramiflora*
- *Actinodaphne bourdellonii* and
- *Symplocos pendula*

The edges of the shola are marked by the Snow Rose Trees like *Rhododendron arboretum* var. *nilagiricum* which is endemic to the sholas of the Southern Western Ghats.



Fig 3. Students and Staffs at the beautiful Cheeyappara waterfalls

The beautiful Cheeyappara waterfalls located in close proximity on the Cochin-Munnar highway cascades down in seven steps and meet the Valara Waterfalls in the most amazing

manner to create a glorious sight. Here is a dense growth of trees all around and several rare species of plants and animals can be seen in the vicinity.

Kochi

The team visited the ICAR – Central Marine Fisheries Research Institute on 08.09.2023 at 10.30 AM.



Fig 4.Students and Staff members at ICAR - CMFRI

Indian Council of Agricultural Research-CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

The ICAR-Central Marine Fisheries Research Institute was established by Government of India on February 3rd 1947 under the Ministry of Agriculture and Farmers Welfare and later it joined the ICAR family in 1967. During the course of over 75 years the Institute has emerged as a leading tropical marine fisheries research institute in the world.

Since its inception, the CMFRI grew significantly in its size and stature and built up adequate research infrastructure and recruited qualified staff. During the first half of the five decades of its existence, the CMFRI devoted its research attention towards the estimation of marine fisheries landings and effort, taxonomy of marine organisms and the bio-economic characteristics of the exploited stocks of finfish and shellfish. This research effort contributed significantly to India's marine fisheries development from a predominantly artisanal, sustenance fishery till the early sixties to that of a complex, multi-gear, multispecies fishery.

Marine Research Aquarium Visit



Fig 5.A view of students and Staffs inside the Marine Research Aquarium

All the students then visited the Marine Research Aquarium, which is a collection of marine ornamental fishes. Many rare marine ornamental fishes were maintained in a controlled environment.



Fig 6. Students and Staffs at the Marine Research Aquarium

Intellectual Property Management and Technology Transfer/ Commercialization Unit (ITMU)

Students were briefed about the ITMU, which is one method of intellectual property-protection technology in which patenting the several techniques, protocols, and technologies developed by CMFRI cannot be patented. These are being filed through ITMU (Intellectual Property Management and Technology Transfer/ Commercialization Unit).

National Marine Biodiversity Museum visit

The National Marine Biodiversity Museum at CMFRI is one of the oldest museums in the country which aims to collect, preserve, catalogue and display species occurring along the marine and coastal environments for the education of researchers and public. The Central Marine Fisheries Research Institute, Cochin was recognized as a 'Designated National Repository' by the Government of India, in December 2007 in consultation with the National Biodiversity

Authority under the Biological Diversity Act, 2002. A Designated National Repository (DNR) is an Institution authorized to keep in safe custody specimens of different categories of biological material. Marine Biodiversity Museum, established at the Headquarters of the Institute offers a glimpse of the biodiversity of the Indian seas displaying specimens collected from marine environments and estuaries. Marine Biodiversity Museum at CMFRI has preserved catalogued and displayed species occurring along the marine and coastal environments for the education of researchers and public. The Marine Biodiversity Museum since it is established at the Headquarters of the Institute, glimpse of the biodiversity research of the Indian seas displaying specimens collected from estuaries and coastal and deeper waters is easily accessible. The collections are arranged in a systematic way for a better understanding of the resources, attracts students, teachers, scientists and the general public hailing from different parts of the country.



Fig 7. Students and staffs at the National Marine Biodiversity Museum

More than 2000 species of fishes, 410 species of crustaceans, more than 1000 species of molluscs and more than 1500 species of marine reptiles were preserved in the museum. There

were 4 species which were described for the first time by the scientists of CMFRI. These fishes were new to science.



Fig 8. Faculty members and students interacting with the CMFRI Scientist

After visiting ICAR – CMFRI the team visited the famous Fort Kochi.

Fort Kochi is rich in heritage and culture, and is a prominent tourist destination for both domestic and international travellers. This was ranked as ninth among the top 25 in National Geographic's Top Tourist Destinations to explore in 2020. This visit proved worthy with the rare sighting of a plant species at the beach, which is mostly found in the hills and mountains. The tamil name of this plant is Nagalingam and common name is cannonball tree. It is a medicinal plant native to South America and southern Caribbean.



Fig 9. Cannonball tree and its flower at the Fort Kochi

Medicinal Properties of this plant

- ✓ Anticancer
- ✓ Antifungal
- ✓ Antiseptic
- ✓ Analgesic

Apart from that it is used to cure cold, stomach aches and skin diseases, snake bites etc.

The tour team reached Vaniyambadi safely at 5.00 AM on 10.09.2023. All accompanying staffs took utmost care of the students during these four days. Faculty members' in-charge for this Institutional visit expresses their sincere gratitude to our respected Secretary and

Correspondent Mr. L. M. Munner Ahmed and our beloved Principal Dr. T. Mohamed Ilyas for the unwavering support, encouragement and timely help in organizing this educational tour. We are grateful to the Joint Director of Collegiate Education, Vellore for granting us permission to organize this tour.

Coordinator

Head

Principal