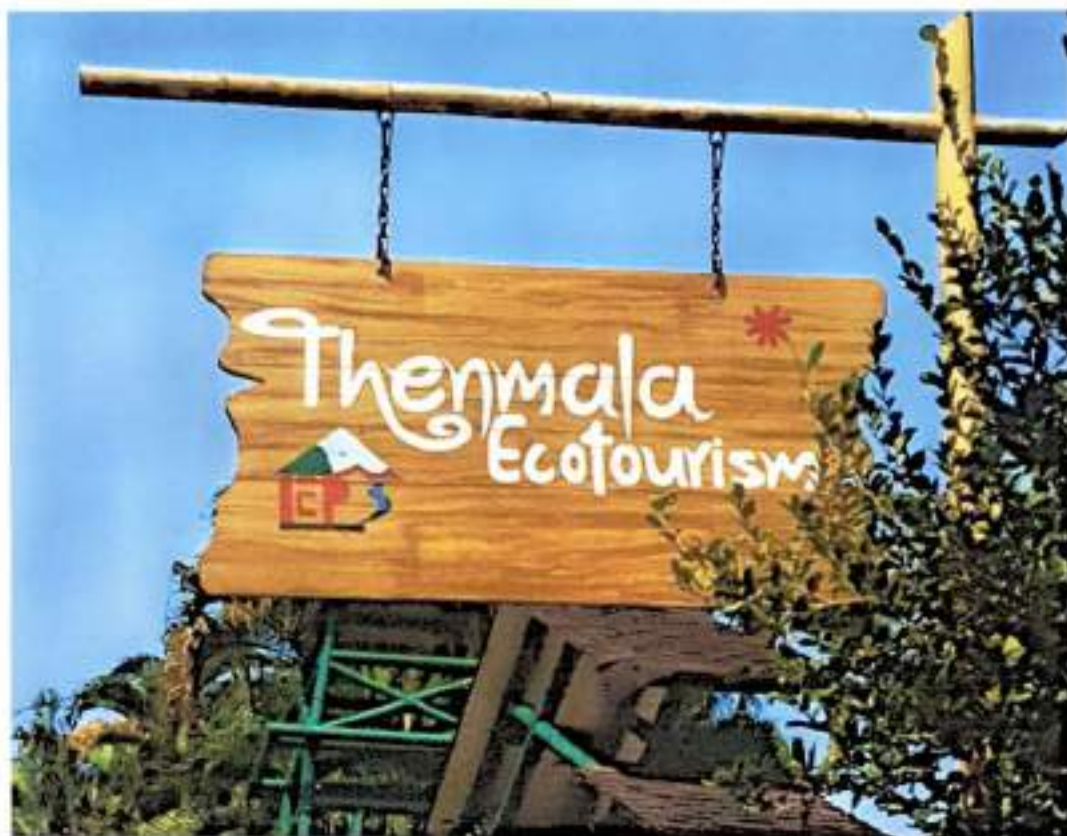


ALL SAINTS' COLLEGE
Thiruvananthapuram, KERALA

**Environment
and
Sustainability
into Curriculum**

2023-2024

THENMALA ECOTOURISM



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Introduction:

As a part of the nature outreach program, we the students of BSc. Botany (2022-25) visited the Thenmala ecotourism center for a one-day trip. The field trip was conducted on 8th December 2023, Friday. Thirty eight students went on the trip. Two faculty members, Dr. Cinthya Christopher and Dr. Nisha K K accompanied us. We were told to assemble at the college ground before 8.30 am and started the journey at 8.45 am after praying to the Almighty.

Objective:

The main object of the trip was to connect with nature. It aimed to bring awareness about the forest and wildlife of Kerala and the need to conserve our environment. It aimed to experience nature beyond the confines of the classroom. The field trip was conducted to provide a field-based study on the importance of the environment. One of the most successful means of using the environment as it is for economic gains is through ecotourism. The other aim was to cultivate a stronger bond between students and teachers and among students and to experience field study which is an effective way to build interest towards the subject.

Study area:

Thenmala is the first planned eco-tourism center in India. It is also a UNESCO World Heritage Site. Thenmala is an ecotourism destination located in the Kollam district of Kerala. The town is around 69 km away from the state capital, Thiruvananthapuram. The word 'Thenmala' means "Honey hill" in Malayalam. The region was once very famous for its honey which was believed to have medicinal properties. It offers sweeping views of the Western Ghats in all



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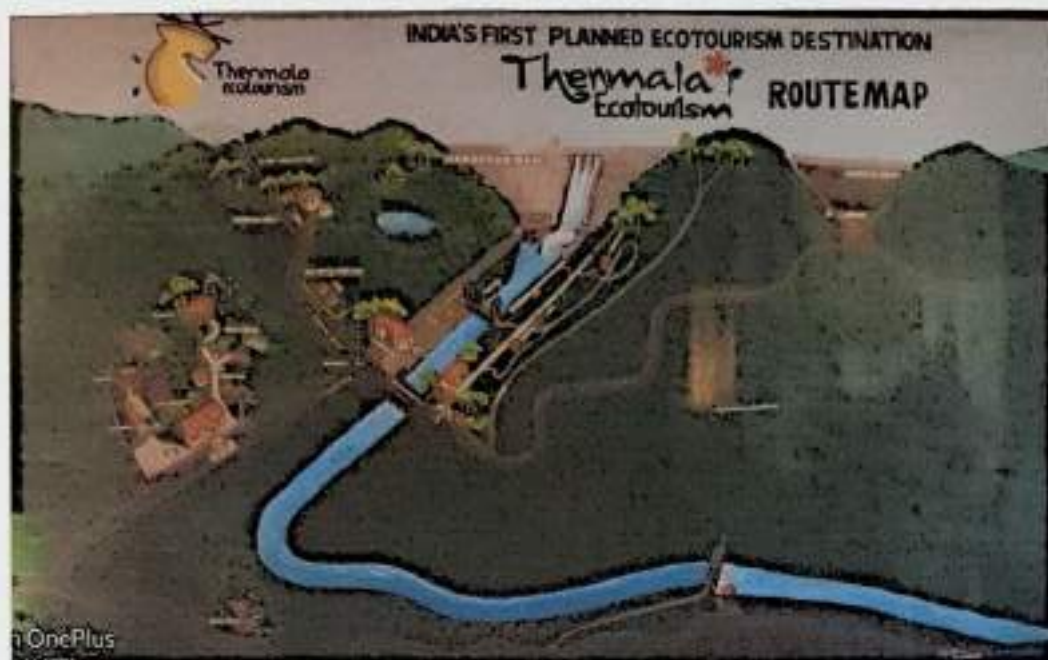
their splendour. An Eco tourist center operates at Thenmala enabling the travellers to enjoy nature at its very best. Managed by the Thenmala Eco-Tourism Promotional Society, which is an undertaking of the Government of Kerala, Thenmala Eco-tourism is a unique destination from a visitors' point of view. It has equal opportunities for fun, adventure, leisure, and for learning the significance and necessity of eco-friendly measures for promoting tourism-related activities. Its terrain is dotted by forests, rubber, and tree plantations and was selected by the World Tourism Organisation as one of the premier eco-friendly projects in the world. It is an ideal place for research students, scientists, wildlife enthusiasts, tourists, and photographers. It has 10 ecotourism spots that cover the hill ranges of the Thiruvananthapuram, Kollam, and Pathanamthitta districts.



We reached there at 11 am. The journey was very joyful. The landscape near Thenmala was filled with trees, hills, rubber plantations, and water bodies. Thenmala Ecotourism Center is a vast area to explore, so we planned to visit three

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zones: the Butterfly Safari, the Leisure Zone, and the Adventure Zone.



Butterfly Safari:

The first spot we visited was the Butterfly Safari Park. It is Asia's first butterfly safari park. The 3.5-hectare park is designed by the Kerala Forest Research Institute (KFRI). There are more than 125 species of butterflies here. We were guided by an instructor from the center. He explained how to maintain and build a butterfly garden. He showed us various specious butterflies.

Butterflies are usually seen hanging on the underside of leaves or in the crevices of rocks. They use a long tube like a proboscis, which is situated on the lower side of the head to suck up sweet nectar and other sweet and salty liquids. They mainly feed on the nectar of flowers, tree sap, juice of rotting fruit, animal dung, mud puddle, etc. They are mostly active in the morning and are capable of flight when the ambient temperature is warm, preferably between 20 to 25 degrees Celsius. They are cold-blooded. So, they bask their wings in the sun to



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attain the energy to fly. It was fascinating for me to know about the mud-puddling behavior in butterflies. It involves the aggregation of butterflies on mud to obtain nutrients.



The tour guide also gave us insights on how to set up our butterfly garden. Bright attractive flowering plants that require less maintenance are usually planted. Since humidity plays an important factor in the survival and reproduction of butterflies, water sprinklers were present in different parts of the garden. Mulching in the garden retains soil moisture which is beneficial for the butterfly host plants that need consistent watering. He informed us that flowering plants, cluster plants, and host plants etc. are necessary for a butterfly garden. For the butterflies to thrive in a region, the temperature must be between 20-25 degrees



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Celsius. The instructor told us about the requirements of a butterfly garden like specialized water sprinklers, nectar plants, cluster plants, host plants, mulching area, etc. We got the insight on how to build a butterfly garden, so we decided to set up one in our college as a part of our Environmental Club.

This place provides a natural atmosphere for the butterflies to breed and grow. Butterflies are more active during the morning and usually take rest during noon. The best season for many species of butterflies is during the wet months from June to December. The lifestyle of each butterfly is different. Each butterfly is attracted to a specific plant to feed itself and lay its eggs. We learned that specific plants and leaves are required by specific butterflies for ingestion (Table).

Butterfly	Plant
Common Emigrant	GOLDEN SHOWER TREE
Malabar Rose	Alpam
Common Four Ring	Grass
Common Cerulean	Rosary Pea
Yam Fly	<i>Smilax Zeylanica</i>
Glassy Blue Tiger	Emetic Swallow-Wort
Common Indian Crow	Ficus
Common Palm Fly	Common Rattan
Lime Butterfly	Koovalam
Common Mime	<i>Persea Macrantha</i>
Grass Demon	Kasthoori Manjal
Common Mormon	Kattunarakam
Common Castor	Kodithoova
Common Crow	Arali
Red Pierrot	Ilamulachi
Tawny Coster	Passion Fruit



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COMMON BUTTERFLIES OF THENMALA

Family: Nymphalidae (Brush-Footed Butterflies)



Autumn Leaf
Dioneus chelonia
Dioneus chelonia



Common Evening Brown
Heliconia melpis
Heliconia melpis



Common Palm Fly
Euphaonia typica
Euphaonia typica



Common Bush Brown
Mycalesis perseis
Mycalesis perseis



Pigmy
Orinomeles medea
Orinomeles medea



Common Four Ring
Tagiades helenus
Tagiades helenus

Family: Lycaenidae (Blues)



Red Pierrot
Tagiades agestis
Tagiades agestis



Tiny Grass Blue
Zinthe hylas
Zinthe hylas



Plain Cupid
Chilodactylus parvulus
Chilodactylus parvulus



Common Pierrot
Cenotus nympha
Cenotus nympha



Yam Fly
Lorana alcyon
Lorana alcyon



Monkey Puzzle
Rathidia amor
Rathidia amor

Family: Hesperidae (Skippers)



Brown Aul
Budania exclamatoria
Budania exclamatoria



Buttered Snowflat
Tagiades obscura
Tagiades obscura



Water Snow Flat
Tagiades thymus
Tagiades thymus



Chestnut Bob
Lambiris salala
Lambiris salala



Indian Palm Bob
Scaevola graminis
Scaevola graminis



Rice Swift
Borbo cinnara
Borbo cinnara



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Spotting butterflies in the butterfly park depends on weather conditions and other factors. We spotted more than 15 species of butterfly there. We saw the Autumn leaf butterfly, the Blue Mormon butterfly (which is the second largest butterfly in India), the Common pierrot, the Common rose, the Common emigrant, etc. The state butterfly of Kerala, *Papilio buddha* is seen abundantly in the butterfly park. The Autumn leaf butterfly is endemic. Special water sprinklers and artificial ponds have also been included in the park. We were able to observe different stages of butterflies in the garden.

The guide informed us about the negative effect of planting only a specific plant for a butterfly garden; the butterflies depending on this specific plant will attack other butterflies and destroy the diversity. He told us about the use of unnatural ways to attract butterflies and its bad effects. The path is decorated using artificial butterflies. The park had various name boards of butterflies and their host plants, interpretive boards, and sculptures that provided additional information about the field area. We jotted down some interesting facts and clicked some pictures. We had our lunch here at around 12.30 pm at the Planet house near the butterfly park. It has eight pillars representing the eight planets.



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Leisure Zone:



Next, we went to the leisure zone. This zone is a forest garden. The pathways of the forest garden take the visitor to the sculpture garden. A walk through the riverside walkway and the suspension bridge adds to the experience. There we walked through the Sculpture Garden. The theme of the Garden is MAN AND NATURE. It endeavors to depict the relationship of man and his culture with nature, in the serene backdrop of a green forest - i.e. unpolluted nature - synchronizing with the Thenmala Forests. Interesting circulation pathways around the sculptures and the integration of the natural features in the zone give the sculpture garden its exclusivity. Various bamboo-erected information boards can also be seen around the forest. We saw many brilliant sculptures. There were many realistic sculptures of dinosaurs like Ankylosaurus, T-rex, Panoplosaurus, Albertosaurus, etc. There were sculptures of man-like Vikramaditya and Vethala, Parashurama, lord Shiva, a series of dancing woman sculptures depicting various mudras of Mohiniyattom, a father and son, etc.



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We also spotted *Macaca radiata* (Bonnet macaque), which is endemic to southern India. It had unique center-parted hair on the head. We saw a massive sway bridge which was made of wooden planks. The Thenmala dam is the main dam of Thenmala built across the river Kallada. It spreads along the middle of the Shendurney Wildlife Sanctuary.

The pathway was very beautiful with a view of the Thenmala dam and greenery. There were many monkeys in the path. It was filled with many beautiful flowers. It was a very calming walk in the forest and we enjoyed it. The leisure zone is a forest garden. The leisure zone gave us a nice trekking experience. It provides a beautiful view of the dam.

There were many resting points throughout the pathway. The bamboo-erected boards provided very interesting and knowledgeable pieces of information.





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For our last stop, we visited the Adventure Zone. It was filled with fun and adventurous activities. An elevated walkway is the main attraction of this zone. First, we tried the Elevated walkway and the natural trail. It felt like walking in a forest. The elevated walkway at its peak gives you a view of the valley below which has an artificial lake. Most of the adventure activities are arranged around this lake. There were activities like rock climbing and rappelling, river crossing, tunnel walking, valley crossing, balancing planks, aerial net walking, Burma bridge, boating, water roller, etc. There is a small pond in the middle of this location. There were many fish in the pond. Though we could not enjoy the rides due to time constraints, we spent time observing the area. The whole place is drenched in the beauty and calmness of the forest around.



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Conclusion:

The trip ended at 3 pm, and we reached the college around 5.30 pm. It was very informative. Everyone was filled with much excitement. We plan to build a butterfly garden at our college. This field trip gifted us with an experience of a lifetime. We got a chance to understand and experience nature at its best. We



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learned something new. It was informative. We gained some insights into butterflies and their host plants, habits, habitats, life cycles, and how to set up a butterfly garden. This trip allowed us to explore and learn from nature. This trip helped us to connect more with the environment. It gave us a necessity to protect and preserve wildlife for future generations so that they can benefit from it. To conclude, the trip was very informative, effective, and at the same time memorable. The organization of the field trip was very helpful for us to learn new through observation, exploration, and interaction. We appreciate the efforts put in by the teachers to organize such a great educational experience. We hope there are more programs like this in the future.



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WORLD ENVIRONMENT DAY CELEBRATION 2023

Department of Botany and Department of Malayalam in association with All India Peace and Solidarity Organization (AIPSO), Thiruvananthapuram District Council celebrated World environment day for the year 2023 on June 6th 2023.

Two Programmes were organized:

1. One day Seminar on 'Global Warming: The Social Consequences'
2. 'Planting Tree Saplings'

Beneficiaries:

- Students and staff of All Saints' College.

The preparation for the smooth conduct of the seminar was started many days back. The Brochure for the programme was designed, dignitaries were invited by the organizing committee members.

Seminar on 'Global Warming: The Social Consequences'

After invoking God's blessings by a Silent prayer, **Dr. C. Udayakala, Head of the Department of Malayalam** welcomed the gathering. The Seminar was officially inaugurated by **Shri Panyan Raveendran, Former Member of Parliament**. Dr. C. P. Narayanan Former Lok Sabha Member delivered the Keynote speech on 'Global Warming: The Social Consequences'. In the Keynote speech he explained vividly the causes and effects of global warming, the anthropogenic threats, threats that students knowingly or unknowingly make in the day to day life, the role as a student to prevent the consequences, precautions to be taken etc. The speech enlightened the gathering and it was much informative also very relevant as the students are now facing direct and indirect effects of global warming.

Following the keynote address Adv. M.A. Francis, AIPSO, District Coordinator felicitated the gathering by appreciating the events conducted by the college for the conservation of biodiversity and the initiatives taken in association with AIPSO for conducting various awareness programmes over the years. Dr. Cinthya Christopher, Head of the department of Botany also felicitated the gathering by conveying the message of conservation and by pointing some of the initiatives that can be taken by the students in reducing global warming. She encouraged the students to become 'Environment Stewards' and to act for the conservation of nature and to make it a better place to live in.



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'Planting Tree Saplings'

Fruit Tree saplings sponsored by All India Peace and Solidarity Organization (AIPSO), Thiruvananthapuram District Council were planted in the college campus. Tree saplings were planted in the campus by Shri Panyan Raveendran, Former Member of Parliament, the College Union Members and students of various departments.



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Students of the department were taken for a field visit to Kanakakkunnu as part of Keraleeyam on 03.11.2023.



4. Students of MSc Semester I participated in the Wetland Conservation workshop organised by AmrithaViswa Vidyapeetham, Amrithapuri Campus, Kollam from



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12.02.2024 to 14.02.2024. They were also taken for a field visit to mangroves at Ashtamudi lake and its premises on 14.02.2024.



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1. Selected students of the department were taken to Energy Management Centre, Sreekariyam under the guidance and leadership of Dr. Reshma.J.K., on 07.10.2023 for an Energy Conservation Awareness session and thereafter for the field visit related to models exhibited there on various energy saving practices, technologies and strategies involved. The session was organised by Energy Efficiency Services Limited(EESL) and Asian Development Bank (ADB).



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A field-based Eco-Camp was conducted under the Biodiversity Club activities Co-ordinated by the FIC, Dr. Smitha Asok V on 04.08.2023 to Kallar, Thiruvananthapuram in association with the NGO, Climatehood Foundation. The students spent a day with the tribals of the area and were introduced to various activities such as traditional archery, fishing, basket weaving, etc. They also did trekking inside the forest, crossing rivers in the path. The field trip was an immensely enjoyable and enlightening one for the students with memorable moments to be cherished forever.



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GPS Map
Camera Lite

P46G+X5F, Thiruvananthapuram - Ponmudi Rd, Kerala 695551, India

Latitude
8.71247105°

Longitude
77.12616269°

Local 09:50:39 AM
GMT 04:20:39 AM

Altitude 124 meters
Friday, 04.08.2023

Note : Kallar Eco camp
Thiruvananthapuram



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GPS Map
Camera Lite



Idinjar, Kerala 695563, India

Latitude

8.72488562°

Longitude

77.11879418°

Local 01:44:59 PM

GMT 08:14:59 AM

Altitude 214 meters

Friday, 04.08.2023

Note : Kallar Eco camp
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GPS Map
Camera Lite



P46H+69J, Kallar, Kerala 695551, India

Latitude

8.71269113°

Longitude

77.12655814°

Local 10:00:38 AM

GMT 04:30:38 AM

Altitude 135 meters

Friday, 04.08.2023

Note : Kallar Eco camp
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