



KERALA STATE BIODIVERSITY BOARD

**EKAA**

Environment. Kerala. Awareness. Action  
Monthly - Newsletter of the Kerala State Biodiversity Board

May 2022  
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World Biodiversity Day

Biodiversity Study

Seed festivals

KSBB Activities

## International Biodiversity Day 2022

### Thiruvananthapuram

Deputy Mayor of Thiruvananthapuram Corporation PK Raju inaugurated the construction of a biodiversity park with fruit trees and medicinal plants at the premises of Government LP school Pangode. Medicinal plants were distributed to students. A biodiversity club was also allotted to the school for maintenance of the park and to carry out activities related to conservation. Planning Board Vice Chairman V.K. Ramachandran, School Headmistress L. Shailaja, Corporation Health Officer Dr. Gopakumar, Medicinal Plant Board member Dr. P. Sajeev participated in the function. Board members K. V. Govindan, Dr. Satheeshkumar, Dr. K. Chandramohan delivered lectures for the students highlighting the importance of biodiversity conservation. Member Secretary Dr. Santoshkumar A.V. presided the function. Administrative officer Mini.V, all the KSBB staff members along with 60 students attended the programme at the school.



Deputy Mayor P.K. Raju planting Asoka tree seedlings



IB celebration @ Pangode LPs

*For further details follow the given link.*

[http://www.keralabiodiversity.org/images/2022/july/KSBB\\_-\\_NBA\\_2022\\_for\\_web.pdf](http://www.keralabiodiversity.org/images/2022/july/KSBB_-_NBA_2022_for_web.pdf)

### Chennai

National Biodiversity Authority (NBA) at Chennai celebrated International Biodiversity Day with a National level conference and exhibition held at 'Kalaivanar Arangam' near Triplicane in Chennai on May 22, 2022. Kerala State Biodiversity Board Chairman Dr. C. George Thomas attended the event. The KSBB participated in the exhibition

with published books, brochures and panels depicting unique biodiversity of Kerala and activities of the board.

As per the invitation of the NBA, tribal BMC members from Athirappally and Marayoor grama panchayaths, having biodiversity conservation projects funded by UNDP, also participated in the event. They handed over the value added products

made from bio resources from their panchayats and all these were displayed in KSBB stall.

Dr. Pradeep C.G. senior research officer and assistant librarian Vinod Sen of KSBB set up the exhibition stall. Exhibition started at 9.00 am and concluded by 5.30 pm day on 22<sup>nd</sup> May 2022. Almost all state biodiversity boards in the country took part in the exhibition. Other central and state institutes working in the field of environment and biodiversity also participated in the event.

The Union Minister for Environment, Forest and Climate Change Bhupender Yadav inaugurated the exhibition. The Union Minister of state for Environment, Forest and Climate Change Ashwini Kumar Choubey, Tamilnadu state

Minister for Environment Meyyanathan, Dr. V.B Mathur, Chairman of NBA and Justin Mohan IFS, Member Secretary of NBA & dignitaries from various states also visited the KSBB stall.



Staff & Chairman of KSBB with NBA Member Secretary Dr. Justin Mohan

## Jaiva Vaividhya Gramasabha

In association with the International Biodiversity day celebrations, Kozhikode Jilla Panchayath BMC, Kerala State Biodiversity Board & Malabar Botanical Garden and Institute of Plant Sciences (MBGIPS) organised “Jaiva Vaividhya Gramasabha” on 30th May, 2022. A prior intimation was given to all the 70 panchayaths in Kozhikode and 2 members (BMC convenor and another member) from each BMC participated in the Gramasabha convened at Malabar Botanical Garden seminar hall. A 10 minutes presentation was allocated to each of the BMC convenors on relevant biodiversity conservation project to be implemented in their panchayath. An expert panel was organised to screen the presentations. District panchayath will be sponsoring the top 3 selected projects presented in Jaiva Vaividhya Gramasabha.

District Panchayath President Sheeja Sasi inaugurated Jaiva Vaividhya Gramasabha, while District Panchayath member Adv. Gavas presided over the function. Around 100 participants including Panchayat Presidents, Secretaries, Asst. secretaries apart from BMC convenors and members attended the event. District coordinator of KSBB, Manju detailed the policy. Dr. Kishore Kumar, Head of the



Inaugural Speech by District Panchayath President Sheeja Sasi

Botany division at Farook College, Kozhikode and the Technical Supporting Group (TSG) member of KSBB made a talk on ‘Biodiversity and its conservation’. He illustrated the need for conservation with a very good example of the adverse effects of the disappearance/absence of bees from the Earth and its impacts on ecological imbalance. Babu Parambath, Director of an NGO, “Niravu” made a talk on ‘Cleanliness and management for Biodiversity conservation’. All the participants took an oath to make their own home a ‘Green Home’.

Around 22 diverse and interesting projects were presented from different panchayaths. Out of which ‘The Vadakara Cattle conservation project’ by Valayam grama panchayat and “Naatumampatha” project from Naduvannur GP was instantly curated to selection list.

The conservation of the nearly endangered Vadakara cattle breed and to GeoTag the same, genetic study by whole genome sequencing and multiplication of its number was the theme of the Valayam project. While the conservation of the local mango tree varieties by planting them on both side of the Canal road of

Naduvannur grama panchayath. The programme was compiled by Dr. Abdul Hameed, Scientist(Retd.), CWRDM and the member Manalil Mohanan.

<https://www.facebook.com/100007942117594/videos/381568040610324/>

## Conservation

### Olive Ridley Turtle Nesting - Pathumuri Beach, Malappuram

Marine turtles are key indicators of healthy marine habitats. The Indian coastal waters support five species of sea turtles that are protected under Schedule I of the Wildlife (Protection) Act, 1972. Among the five, four species namely Olive ridley (*Lepidochelys olivacea*), Green turtle (*Chelonia mydas*), Leatherback turtle (*Dermochelys coriacea*) and Hawksbill turtle (*Eretmochelys imbricate*) nests on Indian coast. For nesting purpose, Olive ridley turtles prefer wide beaches and sand bars at river mouths. It is estimated that only 1 in 1,000 of sea turtles survive from egg to adulthood. Sea turtle population declined dramatically in the last several years due to human exploitation, illegal trade, consumption, climate change, catch in fisheries, loss of habitat and marine pollution. **Pathumuri beach** located in the Veliyankode grama panchayath of Malappuram, is one of the nesting sites for sea turtles. Olive Ridley turtles are the smallest and most abundant of all sea turtles. They grow up to 70 cm in length and weighs up to 50 kg with olive colored heart-shaped and rounded carapace. Males and females grow to the same size; however, females have a more rounded carapace. They are carnivores and feed mainly on jellyfish, shrimp, snails, crabs, molluscs and a variety of fish and their eggs. These turtles spend their entire lives in the ocean, and migrate thousands of kilometers between feeding and mating grounds in the course of a year. Interestingly, females return to the very same beach from where they first hatched, to lay their eggs. They lay eggs in conical nests about one and a half feet deep which they laboriously dig with their hind flippers. A single female can lay 80 to 120 eggs and sometimes even twice in a season. After about 45-65 days, the eggs begin to hatch.

Olive Ridley turtles have a safe nesting site at Pathumuri beach with the joint initiative of Kerala Sate Biodiversity Board, Social Forestry Division of Kerala Forest and Wild life Department along with the BMC Veliyankode Grama Panchayath. Around 4000 of eggs laid by the olive ridley turtles were

collected and kept in an artificial hatchery unit at Pathumuri beach during the period from December 2021 to April 2022. Kerala State Biodiversity board provided 5 lakh rupees to Biodiversity Management Committee for the protection and safe nesting of Olive Ridley turtles at Pathumuri beach. The maximum and minimum number of sea turtles egg releasing of 2523, 76 numbers recorded during the month February 2022 and December 2021 respectively.

Olive Ridley turtle is listed as vulnerable in the International Union of the Conservation of Nature, (IUCN) Red List. This indicates that the species is not endangered but populations are still at high risk of extinction in the wild. The study showed a total of 3346 number of eggs hatched at Pathumuri beach during December 2021 to April 2022. Nest predation is considered to be one of the most significant biotic threats to marine turtle populations. Local people hunting the sea turtle egg for human consumption is the major threat in this area. On the beach, street dogs and birds often prey on the eggs and the hatchlings. Many studies indicated that installing nest cages have been shown to drastically reduce predation rates. Awareness campaign on importance of protection of sea turtles and financial support for watchers and installed nest cages with funding support from KSBB helps in the protection of marine turtles in this area.

<http://www.keralabiodiversity.org/index.php/gallery/videos/425-olive-ridley-turtles-conservation>



1. Nesting cage at Pathumuri beach 2. Egg of Olive Ridley turtle

## Biodiversity Park at Poothakkulam grama panchayat:

Biodiversity park is a landscape having diverse communities that provide ecological, cultural and educational benefits to various stakeholders like the public or students in an urban society. It can act as a carbon sink with indigenous species thereby mitigating global warming and climate change. Poothakkulam grama panchayath in Kollam district constructs a Biodiversity park funded by Kerala State Biodiversity Board and the technical support from Pazhasi Eco Tourism and Rural Development Society (PETARDS).

The inauguration of Biodiversity park construction was held on 30<sup>th</sup> May 2022 by G. S. Jayalal, Chathannoor MLA, and was presided over by Dr. C. George Thomas, Chairman, KSBB. The Board members Dr. K. Satheeskumar explained the project while outline was handed over to MLA by K. V. Govindan. Ammini Amma, President of Poothakkulam, V. G. Sheeja, Secretary of Poothakkulam Panchayath, N. Sadanandan Pillai, President of Ithikkara Block Panchayath, Dr. N. Sudheesh, Scientific officer and Dr. Manju Baby, Kollam District Coordinator participated in the programme.



Inauguration of Biodiversity park by G. S. Jayalal MLA, Chathannoor constituency



K. V. Govindan, Member, KSBB handing over the outline

## Butterfly garden at Biodiversity Heritage site, Asramam:

Butterfly garden is an *in-situ* conservation approach especially for rare species of butterflies by making available a good habitat to complete their whole life stages with in the garden. The protective environment along with plants creates a pleasant atmosphere for public and students to spare time productively by knowing about the life cycle of butterflies. Hence, Kollam Corporation constructed a Butterfly garden at Asramam Biodiversity Heritage site with the fund from KSBB and technical support of Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Thiruvananthapuram.

Mayor Prasanna Earnest inaugurated the construction of Butterfly garden on 5<sup>th</sup> May 2022. The event was presided over by Dr. Santhoshkumar A. V., Member Secretary of Board. Deputy Mayor Kollam Madhu, Sajeev P. K. Corporation Secretary, Dr. N. Sudheesh, Scientific officer, Dr. C G Pradeep, Senior Research officer, Dr. Manju Baby, Kollam District Coordinator and Dr. S. Anilkumar, Technical officer, JNTBGRI participated in the programme.



Mayor Prasanna Earnest inaugurate the construction of butterfly garden at Asramam



Planting a sapling in connection with the inauguration

## RKI Project

### RKI Project – Pathanamthitta

As the part of Pampa Riverine Biodiversity Rejuvenation Project of Kerala State Biodiversity Board under the Rebuild Kerala Initiative, ten selected people from various Grama Panchayaths of Pathanamthitta were trained in mushroom cultivation and beekeeping techniques during May 2022.

Both the training programmes were inaugurated by Dr. C P Robert, Senior Scientist and Head, ICAR-KVK at the campus of ICAR-Krishi Vigyan Kendra, Thadiyoor. Dr. Rincy K Abraham, (Subject Matter Specialist, ICAR-KVK), Dr. Sindhu, ICAR-KVK, Dr. Alex John, (Subject Matter Specialist), Mr. Arun C Rajan (District coordinator, KSBB, Pathanamthitta), Ms. Anagha S (Assistant Program Coordinator, KSBB, Pathanamthitta), and the trainees participated.

The button and oyster mushrooms are the most suitable edible ones for commercial cultivation. The purpose of the training was to grow button and oyster mushrooms commercially, maximising the profits. Training handled by the experts from KVK, had both theory and practical sessions. It included decontaminating the area, hygiene to be maintained by the cultivator, light, and temperature intensity rate, substratum for cultivation, bed making method, spawn filling method, mushroom growth period and composting methods.

Beekeeping or bee rearing is the human-controlled maintenance of bees for procuring honey in man-made hives. This practice dates back to 9000 years ago and has so many benefits other than honey collection such as bee hive products like bee wax, royal jelly, bee venom, propolis, Apitherapy for curing diseases and enhancing the crop yield through pollination. Beekeeping increases livelihoods, facilitates pollination, and sustains life on earth.

Theoretical session dealt with the structure and colony nature of both small and large bees, various products, and the environmental importance. The practical sessions covered the structure of the hive, different types of bees (Queen, workers), cleaning method, safety measures to be followed when treating bees, honey extraction equipments and honey processing.

### Training Kudmbashree to propagate RET plant species

On May 30<sup>th</sup> KSBB launched a programme meant for conserving rare, endangered and threatened (RET) plant species in collaboration with Kudumbashree and Jawaharlal Nehru Tropical Botanic Garden & Research Institute (JNTBGRI), Thiruvananthapuram. The project aims to train nursery techniques and propagation of RET species to the selected 500 Kudumbashree workers of 10 units, each from Thiruvananthapuram and Kollam districts. Shinu Madathara, President of Preningamala Gramapanchayat inaugurated the programme by distributing RET plant species to participants. Dr.C. George Thomas, Chairman of the board, presided over the function. Dr.Santhoshkumar A V, Member Secretary explained the concept and importance of the project. Dr.R.Prakash Kumar, Director and Dr.Nazarudeen Ahammed, Senior Scientist of JNTBGRI attended the event. The inaugural session followed by a technical session was attended by 50 selected Kudumbashree members from



Training on Mushroom cultivation



Training on bee keeping



Preningamala Gramapanchayath President Shinu Madathara handing over RET plant seedlings to trainees

Thiruvananthapuram. KSBB Board Members K.V.Govindan and Dr.K.Satheesh Kumar delivered lectures on the necessity of conservation and establishing nurseries of RET plant species. JNTBGRI scientists disseminated awareness on different propagation techniques, setting up of nurseries, planting operations and aftercare of selected RET species. JNTBGRI also supplied 3500 seedlings/planting materials of different species, including RET species and indigenous varieties of fruit crops to participants. The training programme continues for nine more days.

## Education and awareness activities

- At Pattom Thanu Pillai Memorial Teacher's Training Institute, Maruthoorakonam, Tvp- Conducted awareness classes on Jaivavaividhya samrakshanavum paripalanavum : prasakthiyum pradhanyavum (SO - Dr. Sudheesh N), Biodiversity conservation for sustaining life on Earth (PSO- Dr Yamuna S) on May 10<sup>th</sup>. Besides, KSBB exhibits like panels, brochures and books for sales were also organised at the venue.



- AIR Harithavani programme aired on May 18<sup>th</sup> a talk on International Biodiversity Day by KSBB Chairman Dr. C. George Thomas. Listen to the audio by clicking the link.

<http://www.keralabiodiversity.org/index.php/gallery/videos/423-harithavani-talk-by-dr-c-george-thomas-chairman-ksbb>

- An exclusive article on IB day written by Dr. Santoshkumar AV (Member Secretary) on May 22<sup>nd</sup> - Mathrubhumi daily newspaper.

[https://www.facebook.com/photo/?fbid=3139438409664199&set=a.2237521626522553&\\_cft\\_\\_\[0\]=AZXCERTj35h019hH5Ajt99mXBp05o6MT08 TLR1nCexqMr\\_CeGnC2EhBuj-OePOA42DBtaMP5sLpveu3QPjoRy-W\\_\\_8\\_a5Hji8NS TKnGVYq9euo6ZjDc9pNTESfilf8ClSXk&\\_tn\\_=EH-R](https://www.facebook.com/photo/?fbid=3139438409664199&set=a.2237521626522553&_cft__[0]=AZXCERTj35h019hH5Ajt99mXBp05o6MT08 TLR1nCexqMr_CeGnC2EhBuj-OePOA42DBtaMP5sLpveu3QPjoRy-W__8_a5Hji8NS TKnGVYq9euo6ZjDc9pNTESfilf8ClSXk&_tn_=EH-R)

- TOI (Times of India) Blog on April 4<sup>th</sup> - Film farming: Cultivating crops beyond soil and water- written by Dr. Yamuna S (Principal Scientific Officer) <https://timesofindia.indiatimes.com/blogs/voices/film-farming-cultivating-crops-beyond-soil-and-water/>

- An article in Keralakarshakan e-journal (April), pages 44-45- Agri clinics and Agri Business Center - Dr. Yamuna S (Principal Scientific Officer) [https://m.facebook.com/story.php?story\\_fbid=pfbid02mGbaZX9CzfBo67Hq-JuRMeDq\\_B8Nq5kTh5y\\_Etf\\_PSMhYPHB\\_U1y1jpkhLnqpwKoCqydyl&id=852829968143439&sfnsn=wiwspwa](https://m.facebook.com/story.php?story_fbid=pfbid02mGbaZX9CzfBo67Hq-JuRMeDq_B8Nq5kTh5y_Etf_PSMhYPHB_U1y1jpkhLnqpwKoCqydyl&id=852829968143439&sfnsn=wiwspwa)

- An article in Keralakarshakan magazine (Malayalam), pages 36-39, April 2022 - Loka jaladinavum thannerthadangalude prasakthiyum - Dr. Yamuna.S (Principal Scientific Officer) ([http://www.keralabiodiversity.org/images/2022/KK\\_FEBRUARY\\_2022.pdf](http://www.keralabiodiversity.org/images/2022/KK_FEBRUARY_2022.pdf))

### CHAIRPERSON

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Dr. SanthoshKumar A.V.

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