



KERALA STATE BIODIVERSITY BOARD

EKAA

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

February 2021
Volume - 1, Issue - 2

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New chairman took charge of KSBB

Dr.C.George Thomas, former Director of Research, Integrated Rural Technology Centre, Mundur, Palakkad has joined as the Chairman, KSBB. He has been with the Kerala Agricultural University for a long time in various capacities and retired as Professor & Head, Department of Agronomy. He was also the Associate Dean and Head of the College of Horticulture, Vellanikkara and acted on various academic bodies including the Board of studies and Academic council of KAU and CUSAT.



Dr.Thomas has over 37 years of experience in teaching, research, extension, and guiding students. He has done his PhD from the Indian Agricultural Research Institute, New Delhi. He is the author of 17 books and numerous research papers, chapters in books, and popular articles with national and international publishers. He is a recipient of Karshaka Bharathi (best farm journalist) award of Government of Kerala. His major works are closely associated with community development with a special focus on natural resource management such as forage crops, invasive weeds, soil and water conservation, watershed development, and gender inclusive livelihoods.

Wetland Day -2nd February 2021

Wetlands are often referred to as the kidneys of the earth which indicates the ecological services they are providing. In Kerala, there are around 217 wetland areas and it accounts for as much as one-fifth of the state's land area. The wetland of Kerala provide livelihood to the residents in the form of agricultural produce, fish, fuel, fiber, fodder, and a host of other day-to-day necessities. Kerala has a few wetlands of International importance also. These include Vembanad – Kole, Ashtamudi and Sasthamcotta lakes which are also designated as Ramsar sites of Kerala.

Worldwide, wetlands are in crisis through pollution, invasive attack, draining, or filling to provide room for development making them the most vulnerable habitats on our planet. This Wetland Day reminds us the role of wetlands as a source of fresh water and encourages the actions to restore them immediately. Kerala State Biodiversity Board takes every possible action to create awareness and develops management plans to conserve them for the future. A wetland map of Kerala of the scale 1:12,500 with administrative boundaries was prepared in collaboration with KFRI. Through this, the wetlands were prioritized for conservation strategies. KSBB had also prepared the PBR of important wetlands such as Sasthamkotta lake, and Vembanad – Kole. In addition to these, numerous wetland conservation programmes are being carried out by KSBB.

Sasthamkotta lake

News on Biodiversity

Prof. Mamiyil Sabu, former HOD of Botany at the University of Calicut, now working as Emeritus Scientist at Malabar Botanical Garden & Institute of Plant Sciences, Kozhikode had received the prestigious E K Janaki Ammal National Award for Plant Taxonomy. He worked for over 37 years on the research of gingers, which include families such as Cannaceae, Marantaceae, Zingiberaceae, Heliconiaceae, Costaceae, Musaceae, etc. He has published over 168 research papers and 12 books as an author and co-author. He and his associates have discovered over 58 new species of flowering plants and eight cultivars new to science. Dr. M. Sabu described 65 taxa new to science and reported five new generic records, six new



combinations, 15 new species records for India, nine for South India, and 16 name changes/synonyms. He and his team had rediscovered 11 taxa after 57 to 155 years, which includes some supposed to be extinct taxa. He has assessed the IUCN status of all Indian gingers and established the largest germplasm of Indian Musaceae and Marantaceae in the Botanical Garden of Calicut University which contains more than 30 taxa and over 200 accessions. He has also prepared a database of Indian *Zingiberaceae*, *Musaceae*, and *Marantaceae* and a website www.gingersofindia.com for the first time. Five plant species - *Musa sabuana*, *Zingiber sabuanum*, *Amomum sabuanum*, *Lepidagathis sabui* and *Curculigo sabui* have been named after him as an honour

Species Discoveries

Symplocos mohananii sp. nov. (Symplocaceae) from the Western Ghats of Kerala, India

A new species of *Symplocos* (Symplocaceae), *Symplocos mohananii* of S. sect. *Lodhra*, is described based on material collected from the Ponnudi Hills in the Western Ghats region of India. The species is distinguished from all other species of the S. sect. *Lodhra* by the presence of 9–12 corolla lobes arranged in two whorls. It is otherwise similar morphologically to *S. complanata*, *S. macrophylla*, *S. pyrifolia*, and *S. racemosa* but differs by having shallowly crenate-serrate leaf margins, two unequal bracteoles, and a pubescent style from the base to the apex. The name of the plant is given in honour of Dr. N. Mohanan, a Scientist from JNTBGRI and an Angiosperm taxonomist on Western Ghats flora. He described one genus and 35 species new to science and he is also the author of *Flora of Agasthyamala* and *Flowering Plants of Kerala*, a handbook that leads to the development of live collections and conservatories of JNTBGRI from its initiation in 1983 to 2019. (<https://doi.org/10.11646/phytotaxa.480.2.8>).



A new ant species from the genus *Ooceraea* with ten segmented antennae discovered in Kerala

Ooceraea joshii, a new species from a rare ant genus of the family Formicidae was discovered from the Periyar Tiger Reserve of Idukki district, Kerala. This is the third species of the genus in India and the 15th species in the world. This is a species with ten segmented antennae in which antennal count is one of the significant species-level diagnostic characters in the genus.



The species is known only from its type locality which is an undisturbed tropical moist evergreen forest at an altitude of 780 m in Periyar Tiger Reserve forest and hence it is a species of high conservation value. The species, *Ooceraea joshii*, has been named in honor of Professor Amitabh Joshi who is an eminent evolutionary biologist of India (*ZooKeys*, 2021- 1010, p.165).



National Marine Turtle Action Plan 2021-26: The MOEF has released the National Marine Turtle Action Plan 2021-26 with a vision to create a viable and healthy marine ecosystem for marine turtles and associated species through a coordinated and participatory mechanism to ensure the long term survival of marine turtle. The marine biodiversity including five species of marine turtles in India is one of the richest in the Indian Ocean. Marine turtles have a major influence on the structure and function of marine ecosystem and play a variety of ecological roles for maintaining healthy marine habitats like controlling prey populations, supporting coastal vegetation through their hatchlings, etc. Their presence is an indicator of healthy marine ecosystems and they also provide a source of revenue for local communities through tourism. Marine turtles thus present themselves as a key indicator of healthy marine habitats and an opportunity for the conservation of associated species. Factors like climate change, unsustainable resource use, marine litter, and pollution affect marine turtles and their habitats. Hence, the National Marine Turtle Action Plan 2021-26 is having the following goals such as **1. Conserve species, their habitat, and reduce negative impacts on survival of marine turtles; 2. Improve the understanding of marine turtles and their habitats, through a coordinated mechanism; 3. Promote Awareness and Education on conservation of marine turtles and their habitats; 4. Enhance livelihoods of coastal communities through promoting sustainable ecotourism; 5. Increase national, regional, and international cooperation on marine turtle conservation.**

‘Faunal diversity in Ramsar Wetlands of India’ by MoEFCC

February 2nd of each year is celebrated as “World Wetland Day” to raise awareness on the role of wetlands in shaping the lives of people and the globe. This day also marks the date of the adoption of the Convention on Wetlands on 2 February 1971 in the Iranian city of Ramsar. This is an international date with a different theme and message on a relevant subject set each year by the Ramsar Secretariat. The theme for World Wetlands Day 2021 is “Wetlands and Water,’ which highlights the importance of wetlands as a source of freshwater and encourages action to restore them and stop their loss. This year’s theme highlights the importance of wetlands as a source of freshwater and encourages actions to restore them and stop their loss. The 2021 campaign talks about the contribution of wetlands to the quantity and quality of freshwater on our planet. Water and wetlands are connected in an inseparable co-existence that is vital to life, our wellbeing, and the health of our planet. This year a book named

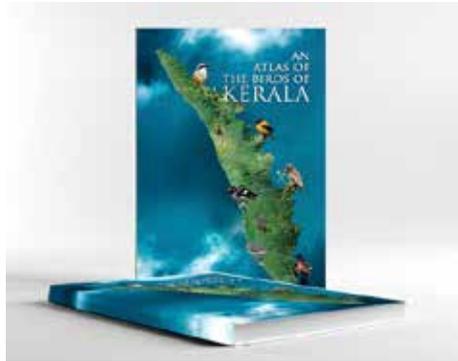
‘Faunal diversity in Ramsar Wetlands of India’ was released by the Ministry of Environment and Forests on the occasion of the “World Wetland day 2021” celebrations

MoEFCC celebrated World Wetland Day 2021, On the Occasion Hon'ble MoS Shri Babul Supriyo, released a book, "Faunal Diversity in Ramsar Wetlands of India", 2nd Feb 2021.



Green Reads

An 'Atlas of Birds of Kerala' is the final product of the five years long ambitious citizen science project named Kerala Bird Atlas. The project aimed at the mapping of the distribution status and abundance of avian fauna across the state and this is the first of such an attempt to cover a whole state in India. The Bird atlas was constructed by surveying and recording birds in almost 3000 locations of 1.1 km x 1.1 km (known as sub-cells) for an hour twice a year (wet season and dry season) across the political map of Kerala. Additional parameters such as the presence of water body, fruiting fig, and invasive species were also recorded. This bird atlas consists of distribution maps



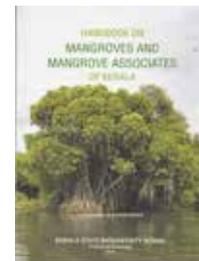
of a total number of 382 bird species from Kerala in which 114 species are migrants. 35 species of birds in the threatened category, as well as 25 endemic birds, were reported in the book. Atlas of birds are used as an important conservation tool across the globe and are also considered as a perfect example of using citizen science in conservation planning. The Kerala Bird Atlas is now known to be the largest bird atlas of Asia. Publishers: Natraj Publishers, New Delhi

- Book name: An Atlas of the Birds of Kerala
- Authors: Praveen J and P O Nameer
- Pages: 219
- Released on: January 25, 2021

Available at :<https://birdcount.in/kerala-bird-atlas/>

Handbook on Mangroves and Mangrove Associates of Kerala:

The biodiversity-rich mangrove ecosystems of Kerala are dwindling due to changes in land use and a lack of awareness of the ecological services proved by the mangrove ecosystem. Handbook on Mangroves and Mangrove Associates of Kerala lists 18 true mangroves and 54 mangrove associates commonly found in Kerala. The work is authenticated by proper references and supplemented with a comprehensive index of scientific names, English names, and local names separately for ready reference.



By: PSUJANAPAL(Author),
N.SASIDHARAN (Author),
90 pages, colour pages , Rs. 150/-
Publisher: Kerala State Biodiversity Board

Glimpses of Ksbb Activities



Release of KSBB e-newsletter "EKAA" by Dr.Usha Titus on 29.01.21 to create awareness about biodiversity



Dr. Usha Titus, Chairperson, KSBB, retired on 30.01.20 after a long and successful career spanning 27 years. KSBB arranged a warm sent-off program for Chairperson.



Dr. Linda John, PSO, KSBB had completed the deputation period and returned to her parent Department, Kerala Fisheries Department on 16.01.2021

News on KSBB Activities

“RKI project on Database of Tradable bioresources”

Assessment of bio-resources used in Ayurveda drugs and evaluation of consumption of raw drugs started with the support of AMMOI

To develop a complete database on the tradable as well as commercially important biodiversity of Kerala, the Kerala state biodiversity board has kicked off a project to assess the details of raw drugs required for the Ayurveda industry in the state with the support of the Ayurveda Medicine Manufacturers Organization of India (AMMOI). The project will result in a complete database with policy recommendations for sustainable consumption of ayurvedic resources. As part of the conservation and cultivation project, KSBB has organized three workshops for manufacturers of Ayurveda medicines in Kerala, one at Thiruvananthapuram, one at Thrissur and another one at Kozhikkode

Conservation project: The 2nd phase of the KSBB thematic conservatory project “Biodiversity garden at Maranellor” was inaugurated by MLA, Shri. I.B Satheesh. Panchayat President, Vice President, Members, BMC members, TSG member Shri. Nissamuddin, Technical Officer of JNTBGRI Shri. T Sabu, District coordinator and Project fellows of KSBB were also present at the function.

Biodiversity stall: The fifth edition of VAIGA (Value Addition for Income Generation in Agriculture) was organized by the Government of Kerala from February 10th to 14th at Thrissur, Kerala State Biodiversity board exhibited panels and posters regarding agro-biodiversity which attracted visitors including farmers across the state. For creating awareness on conservation of biodiversity brochures were distributed in the exhibition.

PHOTO GALLERY



KSBB - AMMOI collaborative workshop at Thrissur on tradable bio resources of Kerala



KSBB - AMMOI collaborative workshop at Thiruvananthapuram on tradable bio resources of Kerala



KSBB - AMMOI collaborative workshop at Thiruvananthapuram on tradable bio resources of Kerala



Inauguration on second phase of theme based biodiversity project at Maranallor GP by Sri. I.B Satheesh MLA



Maranallor GP BMC meeting



ODK collection by NCC students for RKI project



ODK collection by NCC students for RKI project



KSBB stall at Vaiga 2021 Expo

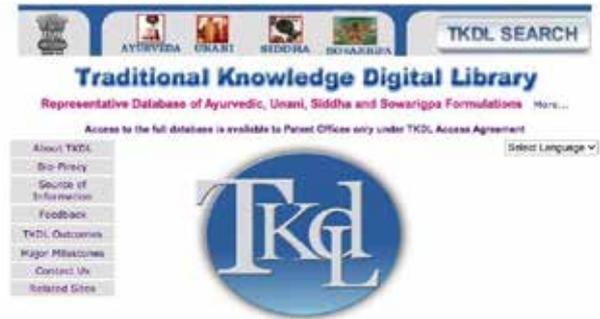


TSG members visit Asramam, Kollam BHS

Traditional Knowledge Corner : CSIR celebrates 20 years of India's Traditional Knowledge Digital Library, the first of its kind globally

The Council of Scientific and Industrial Research (CSIR) has launched a new campaign highlighting 80 success stories from the organization as it is set to turn 80 years old in 2022. This campaign is being launched on 25th January 2021 as CSIR's Traditional Knowledge Digital Library (TKDL) completes two decades of safeguarding India's Traditional Knowledge. To commemorate the two decades' journey a webinar "Two Decades of TKDL - Connecting to the Future" was organized. TKDL database contains more than 3.9 lakh formulations/ practices from the Indian systems of medicine (Ayurveda, Siddha, Unani, and Sowa Rigpa) and Yoga in five international languages, namely, English, Japanese, French, German and Spanish. The database is available to only patent examiners through TKDL Access (Non-disclosure) agreement and so far, access agreements have been signed with 13 international patent offices including India. Significantly, 239 patent applications have

either been set aside/ withdrawn/ amended, based on the prior art evidence present in the TKDL database.



73 species of birds recorded from the banks of Bharathappuzha at Pattambi

An intensive bird survey conducted by the Social Forestry Wing of the Kerala Forest and Wildlife Department recorded 73 different species of avian fauna from the banks of Bharathappuzha near Pattambi Bridge. A total of 34 volunteers participated in the survey in 4 different teams and each team covered a line transect of 1 km at different locations near Pattambi bridge. A total of 924 individual birds belonging to 73 different species were identified. Some of the major species include Ashy crowned sparrow-

lark, Siberian stonechat and Long-tailed shrike. The most abundant bird in the area was identified as Little cormorant followed by Little Egret. The survey was the first of its kind in the Bharathappuzha river basin and throw light on the presence and conservation needs of some of the rare migratory birds in this area.

CHAIRPERSON

Dr. C. George Thomas
CHAIRMAN

KSBB - BOARD CONSTITUTION

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1. Agriculture Production Commissioner
2. Principal Secretary , Fisheries Department
3. Principal Secretary, Forest & Wildlife Department
4. Executive Vice President, KSCSTE
5. Adl.chief Secretary, Environment Department

KSBB MEMBERS (Unofficial)

6. Dr. K Satheesh Kumar
7. Sri. K.V Govindan
8. Dr. T.S Swapna
9. Dr. K.T Chandramohan
10. Sri. A.K Dharni, IFS (Retd)

