FROM THE STATE DIRECTOR’S DESK

Mangroves are considered as the most productive among ecosystems in the world. They are feeding, breeding and nursery ground for fishes, crustaceans and many other smaller species. Kerala once used to have extensive mangrove vegetation especially along the western coastal belt. But with human interventions, especially cutting down of mangrove vegetation and conversion for other land use, namely major development projects, the State has lost its major share of mangrove cover. What is remaining is mainly in the northern districts of Kannur and Kozhikode. Sparse mangrove patches are there in Thiruvananthapuram, Kollam, Alappuzha, Ernakulam and Thrissur. We have a responsibility to afforest areas where original mangroves have been lost. The Social Forestry Division of Kerala Forests and Wildlife Department is already working on this across the State. With the interest expressed by Mane Kancor in Kochi, to undertake some relevant projects under their CSR mandate and funding, we are trying to identify some public land, in and around Kochi, where mangrove afforestation can be done. We have initiated discussion with the ACF, Social Forestry to help us in finding suitable land parcel for this. Hope it translates into some solid onground action for the improvement of the mangrove cover of the State. Inspite of the challenges of the Covid pandemic, the environment education programs are going ahead very well with much impact and outreach. As in previous years, the Wild Wisdom Landscape Programme, the State has lost its major share of mangrove cover. Experts say that the country managed to save its iconic animal through its long-term conservation efforts, including the expansion of habitats. China considers Pandas a national treasure, but have also loaned them to other countries as diplomatic tools. (Source: BBC News, 9 July, 2021).

Renjan Mathew Varghese, State Director

IMPORTANT NEWS ON NATURE AND ENVIRONMENT

INTERNATIONAL

Giant Pandas no longer Endangered but still Vulnerable, says China

Giant Pandas are no longer classified as Endangered but are still Vulnerable, Chinese Officials say. The classification was downgraded as their number in the wild has reached 1,800.

New plant species discovered from Antarctica named after India

Polar Biologists based at Central University of Punjab have discovered a new native species of moss from continental
India to launch Deep Ocean Mission

The Union Cabinet has approved the long-pending Deep Ocean Mission, which among other things involves developing a submersible vehicle that will allow a crew to plunge 6000 meters into the ocean and hunt the floor for precious metals. If this works, India will be among a handful of countries able to launch an underwater mission at such depths. The Ministry of Earth Sciences (MoES) will be the nodal ministry implementing this multi-institutional mission. India has been allotted a site of 75,000 Km in the Central Indian Ocean Basin (CIOB) by the UN International Sea Bed Authority for exploitation of polymetallic nodules (PNM). (Source: The Hindu, 16 June, 2021)

New frog species from Western Ghats

Newly discovered frog species named after renowned plant geneticist. University of Delhi Researcher Professor S D Biju and Dr. Sonali Garg said they have just discovered a new species of frog belonging to the family Dicroglossidae from the globally recognized Western Ghats Biodiversity Hotspot and it has been named as “Minervarya Pentali.” (Source: Times of India, 2 August, 2021)

IPCC report forecasts a future of severe weather

The current global warming trends overall are likely to lead to an increase in annual mean precipitation over India, with more severe rains expected over southern India in the coming decades, says the Intergovernmental Panel on Climate Change (IPCC)’s Sixth Assessment Report, with Scientists warning that India will witness increased heat waves and flooding, which will be the irreversible effect of climate change. The planet is irrevocably headed towards warming by 1.5° Celsius over pre-industrial times in the next two decades. (Source: The Hindu, 9 August, 2021).

Four more Ramsar Sites in India

Four more Indian sites added to Ramsar List as Wetlands of International Importance - two each from Haryana and Gujarat. Thol and Wadhvana from Gujarat and Sultanpur and Bhindawas from Haryana have made the cut for Ramsar recognition. The number of Ramsar Sites in India is now 46. (Source: The Hindu, 14 August, 2021)

Oil Palm plan for northeast, Andamans a recipe for disaster, say activists

Given the widespread destruction of rainforests and native biodiversity caused by Oil Palm plantations in Southeast Asia, environmental experts and politicians are warning that the Centre’s move to promote their cultivation in India’s northeastern States and in the Andaman and Nicobar Islands could be disastrous. Other concerns include the impact on community ownership of tribal lands, as well as the fact that the Oil Palm is a water-guzzling, monoculture crop with a long gestation period unsuitable for small farmers. (Source: The Hindu, 29 August, 2021)

International Climate Summit 2021

India hosted the International Climate Summit 2021 in New Delhi to get the ball rolling for the country’s journey towards a carbon-free energy ecosystem and become a key global player in renewable energy by transition towards net-zero carbon emissions through adopting clean energy. (Source: Hindustan Times, 3 September, 2021)

India establishes the largest network of Ramsar Sites in South Asia

Designating 46 wetlands spanning 1.08 million hectares, India has created the largest network of Ramsar Sites in South Asia. The network of Indian Ramsar Sites covering over 8% of the known wetlands’ extent of the country is the largest in South Asia. Ramsar Site designation is a stepping stone towards wetlands wise use. While site designation calls for celebration, it is actual conservation and management action at these sites that fulfils the objective of creating an international network of wetlands which can sustain biological diversity and support human well-being, writes Ritesh Kumar in this commentary. (Source: Mongabay India, 6 September, 2021)

PM Modi launches 35 crop varieties, highlights climate challenge

Stating that climate change is a big challenge for agriculture and the entire ecosystem, Prime Minister Narendra Modi stressed the need to step up efforts to fight it as he launched 35 crop varieties that are climate-resilient and have high nutrition content. He also inaugurated the newly constructed campus of the National Institute of Biotic Stress Tolerance, Raipur, Chhattisgarh. (Source: Hindustan Times, 28 September, 2021)

About 2,500 horns turned to ashes

On World Rhino Day, 2,500 horns turned to ashes in Assam. The “world’s largest stockpile” of Rhino horns was consigned to flames in eastern Assam’s Bokakhat, the headquarters of the Kaziranga National Park and Tiger Reserve, amid Vedic rituals on Wednesday. The event timed with the World Rhino Day was aimed at dispelling myths that have driven the illegal horn trade and the poaching of the animal. (Source: The Hindu, 22 September, 2021)
State

Kerala’s home gardens are a natural solution for climate change mitigation

Home gardens in Kerala are a traditional natural solution that will help in climate change mitigation. Studies show that restoring carbon and species-rich ecosystems is among the cheapest and the quickest nature-based climate mitigation measures. Home gardens provide many ecosystem services—from providing food and fuel and holding rich biodiversity to fixing soil nitrogen, acting as carbon sinks and windbreaks and managing hydrological cycles. Urbanization and monoculture have already dwindled the number of home gardens. Without further research or the political will to conserve them, the simplest solution to conserve biodiversity could be lost, say experts. *(Source: Mongabay, 27 August, 2021)*

Soil in Kerala’s monoculture plantations less healthy, productive than natural forests: study

A study found that monoculture tree plantations in Kerala have reduced soil organic carbon, higher soil temperature, and bulk density, all indicators of poor soil health and productivity. They also score poorly on biodiversity and are less drought-resistant compared to natural forests. The study results help understand the effect of soil respiration on climate, a parameter that needs to be included during environmental impact assessments. *(Source: Mongabay, 2 September, 2021)*

Western Ghats offer major additions to new flora

Botanical Survey of India says 202 new species were discovered across the country in 2020. In its new publication, Plant Discoveries 2020 has added 267 new taxa/species to the country’s flora. The 267 new discoveries include 119 angiosperms, 3 pteridophytes, 5 bryophytes, 44 lichens, 57 fungi, 21 algae and 18 microbes. *(Source: The Hindu, 20 September, 2021)*

Outcry strengthens to save the Bharathapuzha

Nature lovers in Palakkad, Thrissur and Malappuram districts are raising an outcry for saving the Bharathapuzha, the State’s second longest river after the Periyar. The outcry will echo on the banks of the river as they celebrate World Rivers Day. “It is sad to see the Bharathapuzha turning into one of the most polluted rivers in the State. The pollution becomes the worst when the river reaches Pattambi, from where the water is pumped to 17 nearby villages,” said Rajan Chungath, Vice President of the Friends of Bharathapuzha (FOB), an organisation that works for the conservation of the river. *(Source: The Hindu, 26 September, 2021)*

SPECIES OF THE ISSUE

Dancing Ladies: *Globba andersonii*

They are characterized by white flowers, non-appendaged anthers (the part of a stamen that contains the pollen) and a “yellowish lip”. The plant usually grows in a dense colony as a lithophyte (plant growing on a bare rock or stone) on rocky slopes in the outskirts of evergreen forests. It is especially prevalent near small waterfalls along the roadside leading to these hill forests, which are 400-800 m. above sea level.

CHILDREN’S CORNER

Unscramble

1. EECRUD
2. PAWESNREP
3. BDORAAHDR
4. SAGLS
5. ESERUF
6. UERSE
7. OOCMSTP
8. TPAISCLTOELTSB
9. LEMTA SNAC
10. NOLOLIUTP

6. UERSE
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ACTIVITIES OF WWF-INDIA KERALA STATE OFFICE

Conservation Projects

Discussion on possible projects along the Kerala Coast jointly with the Marine Program

Mangrove afforestation mainly in Ernakulam District with the possible financial support of Mane Kancor, Kochi under their CSR mandate. Post initial meetings, we are in consultation with Mr Jaimadhavan, ACF, Social Forestry,
We organized an Orientation Program for Teachers on managing the ITZA Teacher and Student Portal. Around 41 Teachers attended this program. Finally, all the 68 schools participated in the WWC Live Quiz on 24th September 2021.

One Planet Academy

An Educators Workshop, second in the series, was conducted on ‘The Lesser Known - Dragonflies & Damselflies’ under the theme of topic, ‘Biodiversity’ during which Ms. Chetna Kaith spoke about the success of Dragonfly Festival 2020. The session was led by Sri. Sujith V Gopalan of Society for Odonates Studies (SOS). The workshop was attended by seventy-one teachers. Following this, fifty new teachers were added to the OPA Kerala WhatsApp Group.

Wild Wisdom Global Challenge (WWC)

WWC State Quiz was conducted on 8th July and saw a participation of 372 students. It was led by Senior Education Officer and both the Project Officers.

In continuation, we have really worked on increasing the number of registrations by following-up with pending Schools and School Chains. A total of 68 schools with 5522 student registrations were received at the end of the closing date. Volunteers then conducted School Assemblies.

One Planet Academy

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Environment Education

One Earth, One Home – Oru Bhoomi, Oru Bhavanam in Kerala

We conducted the OEOH State Launch on 5th August which was attended by 70 teachers. Member Secretary, Kerala State Biodiversity Board was the Chief Guest. As part of rolling out OEOH, as the first step, we have conducted Baseline Assessment with the participation of 3945 students. Further on, we have shared the Introduction Video with the schools and also shared Step 1 Content. We are also preparing the content for Biodiversity Map of Kerala under OEOH. The list of plants and animals have been prepared with the help of Dr Jomy Augustin and Mr Sujith V. Gopalan. The State write-up was prepared by the State Director. The map have been requested from IGCMC.

Wild Wisdom Global Challenge (WWC)

The third Educators Workshop was on “Protection of Wetlands and Wise Use of Water” with Mr. Jojo T.D., Project Coordinator, ATREE, Community Environment Resource
Centre, Alappuzha as the Resource Person and 32 teachers attended the workshop.

The fourth Educator’s Workshop was on the topic “Changing Climate Changes Everything” with Sanju Soman, Director, Sustera Foundation as the Resource Person and it was organised on the Zoom platform and 43 Teachers attended the webinar.

Eco-Talks for School Students on “Tigers of Wayanad WLS” with Mr. D Boominathan of WGNL program as the Resource Person was organised on the Zoom platform on 10th September 2021 and 374 students attended the webinar. This was the 5th session in the Eco-Talks series in this academic year.

ECHO – Building Environment Conservation Heroes

Sunaina Nair S.S., Sreelakshmi S., Aravind S., Parvathy and Dr. Ganga G from Sree Ayyappa College, Chennamur participated in the ECHO National Summit. The Kerala State Office Team also attended the National Summit conducted online on 22 and 23 July.

Volunteer Engagement Program (VEP)

National Moth Week

This was observed on 19th July by conducting a webinar which was led by Sri Balakrishnan Valappil, a moth enthusiast.
who has been working in this field for several years. It was attended by 129 participants. All the participant volunteers were asked to do the Moth Watch using a moth screen from 20th to 24th and to upload the pictures of the moths observed in the Facebook page, “Moths of Kerala” for the ease of identification and documentation. The report preparation is under process.

Volunteer Talks

We hosted the Volunteer Talks #42, “Oothapidutham: An Unsustainable Fishing Practice” led by Dr CP Shaji, Expert in Freshwater Fishes on 14th July 2021 from 7:00 to 8:00 pm with a participation of 80. Towards the end of the discussion we discussed the possibility for a follow-up action plan.

The Volunteer Talks # 43 was on “Birding with a Purpose” by Sri. Praveen J., Co-ordinator, Kerala Birder and was attended by 158 participants.

The Volunteer Talks #44 was on “Puzha Arivu” by Mr S Unnikrishnan, Co-Founder, River Research Centre on 15th September 2021 and was attended by 115 participants. Post the talk, there was a very active Q&A session. A Certificate of Appreciation was sent to the Resource Person via email.

Biodiversity Festival – Dragonfly Festival 2021-22

The State-launch of Dragonfly Festival 2021 was conducted on 4th September 2021 with Shri. Pramod G. Krishnan, IFS, Chief Conservator of Forests (Working Plan & Research), Kerala Forests and Wildlife Department as Chief Guest.

Dr. A Subramanian of ZSI, Chennai delivered the keynote address. The mascot “Piku” created by a Volunteer Ms. Cicy was unveiled during the inauguration by Shri Suresh Elamon. The Activity Report of DFF 2020-21 was also released by the Chief Guest. An overview of the festival conducted in 2020
was given by Mr Sujith V Gopalan of SOS, who were the local partners in the year 2020 for Dragonfly Festival in Kerala titled as “Thumbimaholtsavam”.

The Regional Expert Talk for the month of September was taken by Mr. Muhammed Sheriff, Member, SOS on 11th September 2021 and 30 participants attended. Questions for National Quiz program for the month of September was prepared by Thumbipuranam and shared with the EE Division and Mr Vishnu Haridas, a Volunteer of SOS mastered the quiz with the help of Nikhil John from WWF India Secretariat.

Press Release for the Backyard Odonata Watch titled as Regional Bioblitz was published on 24th September in both English and Malayalam dailies. The Orientation Program was attended by 98 citizens and they contributed to the Watch on 26th September. More than 400 entries of Dragonflies and Damselflies were uploaded on IBP, iNaturalist and “Dragonflies of Kerala” Facebook page by 80 Volunteers.

**Other Outreach Activities**

**International Tiger Day**

We had multiple online engagements, namely (1) Session on ‘Tigers for Tiny Tots’ was taken by Ms Anushreedha Sivanandan, Project Officer in The Choice School Grade 1 with 140 participants, The Choice School - Pre-school with 75 participants, Eco-Club members of The Choice School with 45 participants, Birla Open Minds with 98 participants, Chirec International School with 300 participants (2) Quiz Questions on Tigers were reviewed by the team and additional questions were shared with Study Quotient Edu.Pvt.Ltd, a start-up based in Kerala for conducting the Tiger Quiz on their platform, Reviens. Fifty Four students participated in the quiz and certificates for the winners were given on behalf of both WWF and Study Quotient (3) A PowerPoint presentation on International Tiger Day was designed and shared with 32 of our associate colleges to help them observe this day.

**World Nature Conservation Day 2021**

Mr A.K. Sivakumar, Senior Education Officer led a session on Nature Conservation for the students of MG College, Thiruvananthapuram on 28th July 2021 in which 85 students attended.

**World Elephant Day**

Kerala State Office prepared a PowerPoint Presentation for World Elephant Day and shared it with 52 colleges for organising awareness programs on their own.

**World Rivers Day**

As part of World Rivers Day, we put out a Call to Volunteers to conduct River Walk in their own locations and to facilitate that, we shared the Handbook on River Walk Protocol prepared by the Project Team of KLSO working on Rivers of Kerala.

**Annual Heronry Count**

Annual Heronry Count was conducted in the district of Thiruvananthapuram in 18 sites with the support of Volunteers. Information has been collected in the form of data forms and electronically in the ebird platform.

**Clean Earth Program**

This is an initiative by Dr Vineetha Aravind, FIP Consultant, Marine Conservation Programme, WWF India to address the issue of plastic waste management in Thrissur, including creating awareness, and to educate the society on the efficient use, recycling of plastics and other forms of waste.
by engaging students as Volunteers to spread the message. As a first step, an Orientation Session was conducted by the Kerala State Office Team for over 100 Volunteers on 24 July. The topics covered the use, mismanagement, challenges encountered in plastic waste management, solutions, way forward for the association with WWF-India etc. The participants have all agreed to sign-up as WWF Volunteers too.

In continuation to this, an Action Plan has been drafted and shared with Ms Vineetha and her Team of Volunteers with 3 webinars on plastics and related topics for the next 6 months with 2 months gap between each session which will give adequate time for Volunteers to do some impactful on-ground initiatives also based on the webinar sessions.

Nature Club/ Eco-Clubs Inauguration of The Choice School

The State Director and the KLSO Team was invited for the inauguration of the Eco-Clubs of The Choice School on 22nd July for the lower classes. The inauguration of Nature Club Tierra Crusaders (Choice International School - Grade 6-9) was carried out by Mr Renjan Mathew Varghese, State Director and Ms Anushreedha SS on 6th August. About 117 students attended the program.

Webinars attended
- July 2 – TERI Webinar on Mainstreaming Climate Change Adaptation into State Action Plan on Climate Change
- July 26 – KSCSTE Webinar as part of National Mangrove Day by Dr. Khaleel Chovva
- July 28 – A webinar on Forest Canopies by Mr. Sheshadri
- August 15 – Webinar on Wildlife Conservation in Independent India organized by Wildlife Crime Control Bureau attended by the State Director.
- Webinar on International Vulture Awareness Day on 4th September
- Panda Talk by Dr Sejal and Mr. Anindit Roy Chowdhury on 9th September
- Climate Change Sessions between WWF India and Save the Children 16th, 23rd and 30th September
- WWF-Intl’s Innovation Approach Launch Event on 14th September
- Webinar by KSCSTE for Ozone Day on 16th September
- Webinar on Economics of Biodiversity by Clean Ganga Mission on 20th September

Internship

Timothy Mathew – a native of Kerala and a student of FLAME University, Timothy worked on developing the content for the Living Planet Report: Kerala Factsheet during his internship period under the guidance of the State Director

Ananthu Ramesh & Mirza Mohan – students of MA Natural Resource & Governance from TISS, Ananthu and Mirza worked on formulating the Volunteer Talks into a Short-Term Training Program for Colleges by listing the topics and developing the outline. They also worked on reviewing the interview of Prof Kunhikrishnan on the Muttil Illegal Tree Felling in Kerala recently and collecting all reports, gazette notifications, acts, rules etc. mentioned through the interview.