

FROM THE STATE DIRECTOR'S DESK

The Wild Wisdom Global Challenge State-level Quiz Competition held at St Mary's College, Thrissur witnessed huge participation from the student teams from across the State, accompanied by their teachers or parents. The student volunteers from the College extended full support for the various aspects of the successful conduct of the event. We have also initiated the UNEP Tide Turners Plastic Challenge (TTPC) campaign in the State with the two Teacher's Training Workshops conducted at Alappuzha and Mavelikara and the College-level works covering various educational institutions across the Kerala. People are aware about plastics and plastic pollution. But because of the convenience factor, more and more plastics are coming into our daily life. The safe disposal of plastics is the major challenge in our society. It is really essential to know the various plastics around us and understand the direct and indirect impacts it can have on land and water and even in the oceans affecting various inhabiting lifeforms and then ensure that the plastic waste emerging out of our lives are carefully disposed off. We are targeting college students with the aim of "catch them young" and we hope that through these 10-15 workshops, we will be able to sensitize the students about the impending threat of plastic pollution and encourage them to take individual and collective action. The Magical Mangroves campaign conducted jointly with Godrej & Boyce is also going on well. We have around 30 Volunteers registered under this program and with their initiatives, we hope that there will be more awareness about the significance of mangroves as an ecosystem to Planet Earth and human beings. Even though it is proven that mangroves are the most productive among all ecosystems in the world, we are fact losing out on our mangroves for our various development projects – mangroves in Veli in Thiruvananthapuram were wiped away with the development of the Veli Tourist Village, the remaining mangroves in Asraman is facing the axe every day in the name of tourism and other development projects,

mangroves in Aroor and other parts of Ernakulam are being subdued by other invasive alien species, think mangrove patches in Puthuvypin have been fully wiped off with the setting up of the LNG Terminal, mangroves in Chetwai are under a lot of pressure from tourism development. The only remaining mangroves as forests are in the two districts of Kozhikode and Kannur. Hope our efforts will help to protect and safeguard the remaining mangrove ecosystems in the State because we can never create a mangrove ecosystem. The beach combing and waterbird monitoring for Ramsar Site, i.e. Ashtamudi in Kollam District is progressing well with the active involvement of our Volunteers. As in previous years, we were able to organize the Thiruvananthapuram Bird Race 2023 in the Capital City covering the prominent bird habitats across forests, wetlands, and mountains. The day's event saw the active participation of our regular Bird Experts, and Volunteers and provided a platform for many new Volunteers to start their journey with us. We were invited by Sree Sankara College, Kalady, Ernakulam District to conduct a Workshop on Human-Wildlife Conflicts. It is a very relevant topic for the State of Kerala as there are more and more reports of HWC across the State involving various species ranging from the larger wild boars, tigers, leopards, elephants, bison to the smaller monkeys, squirrels, and peacocks. It was a great opportunity to address this issue among the younger generation of college students and make them think about coming up with innovative solutions to mitigate conflicts. We were also invited to deliver talks at different platforms, namely, the NCC Camp organized at Pangode Military Station in Thiruvananthapuram, NSS College for Women, Neeramankara, and AMAS Adventure Camp at Thekken Kurisumala. We also put up exhibitions at two venues i.e. Sree Chithra Thirunal School and Amrita Kairali Vidya Bhavan as part of our education, awareness and outreach programs

Renjan Mathew Varghese
State Director

IMPORTANT NEWS ON NATURE AND ENVIRONMENT

Global

Deforestation in the Brazilian Amazon falls 22% in 2023

Deforestation in Earth's largest rainforest decreased by 22% in the year ending July 31, 2023, according to data released by Brazil's National Space Research Institute

(INPE). The analysis of satellite imagery by INPE revealed that forest clearing in the Brazilian Amazon totaled 9,001 square kilometers, an area approximately the size of Puerto Rico. This marks the first-time annual deforestation in the Amazon has fallen below 10,000 square kilometers since 2018. President Luiz Inácio Lula da Silva's has reinstated programs to monitor and control deforestation, restarted conservation initiatives, forged alliances with other tropical forest nations, and committed Brazil to eliminating illegal deforestation by 2030. (Source: Mongabay, 11 November 2023)

COP28 ends with a call to 'transition away' from fossil fuels; UN's Guterres says phase-out is inevitable

The summit took place in Dubai, in the United Arab Emirates (UAE). It was scheduled to last from 30 November to 13 December 2023. For the first time, countries agreed on the need to "transition away from fossil fuels in energy systems". The text calls for this to be done "in a just, orderly and equitable manner". This is seen as an important recognition that richer countries are expected to move away from coal, oil, and gas more quickly. However, the deal doesn't compel countries to take action, and no timescale is specified. The agreement includes global targets to triple the capacity of renewable energy like wind and solar power, and to double the rate of energy efficiency improvements, both by 2030. It also calls on countries to accelerate low- and zero-emission technologies like carbon capture and storage. Around 200 nations were represented in the talks. The COP28 agreement highlights "the growing gap" between the needs of developing countries and the money provided to cut emissions - but there is no requirement for developed countries to provide more support. (Source: BBC, 13 December 2023)

National

Curbs on fireworks binding on all States: Supreme Court

Days before Deepavali celebrations, the Supreme Court clarified that its orders to minimize air and noise pollution caused by firecrackers bind States across the country and not just Delhi National Capital Region. "Celebrations can take place, but with some moderation. One can bring happiness to others with celebrations, Justice A.S. Bopanna said adults tended to behave worse than children, bursting crackers galore, with no thought of the pollution and discomfort caused by them. "Due to awareness spread in school, children do not burst crackers much. It is the adults who do it.," Justice Bopanna remarked that it should not be at the cost of the environment. Justice M.M. Sundresh, on the Bench, said. The Court was hearing an application highlighting a spike in pollution in Rajasthan despite restrictive orders passed by the Supreme Court. (Source: The Hindu, 8 November 2023)

COP28 Climate Summit | India will not be bound by curbs on energy use: Environment Secretary

India, while being committed to expanding renewable energy, would not be bound by "restrictions" on what kind of energy sources it could or could not use, Leena Nandan, Secretary, Ministry of Environment and Forests, told The Hindu. On December 2, at COP28, India was conspicuously absent from a list of 118 countries signed on to a pledge to triple installed renewable energy capacity by 2030. The

elision was odd as India was a proponent of tripling energy capacity, beginning with a mention in the G-20 declaration text this September. India, so far, has also not signed on to another major pledge signed by 123 countries on December 3, namely, the 'Declaration on Climate and Health'. (Source: The Hindu, 4 December 2023)

State

The shrinking mudflat ecosystem of Kerala's Kadalundi keeps shorebirds away

The inter-tidal mudflats are one of the richest foraging grounds for migrant shorebirds along India's west coast, and now, they are in danger of disappearing, because of both natural and anthropogenic factors. Kadalundi, on the south-west coast, had about 8 hectares of nutrient-rich inter-tidal mudflats in the early 2000s. Today, the expanse of mudflats in the estuary of the Kadalundi River has reduced to just about 1 hectare. This too is gradually being covered with sand, depriving prey to thousands of shorebirds that migrate from colder climes in winter to Kadalundi Village in Kozhikode district. Researchers point out that if the mudflats are not protected and restored, Kadalundi will vanish from the global map as a prominent destination for migrant shorebirds in a few years. It is the abundance of prey such as polychaetes and crustaceans in the mudflats that attracts a wide variety of migrant shorebirds to Kadalundi from places such as Siberia, Ladakh, Mongolia, and Scotland. (Source: The Hindu, 18 November 2023)

Draft energy efficiency plan for Kerala lays stress on more electric vehicles, green buildings

The draft plan focuses on four sectors to help the State achieve its energy savings goals; transport, industry, domestic and commercial buildings, and agriculture and fisheries. Kerala can make appreciable gains by 2030 in terms of energy savings by increasing the number of electric vehicles and green buildings and enhancing the overall energy efficiency of households and industries, the draft State Energy Efficiency Action Plan has indicated. The draft plan for Kerala, prepared by the Confederation of Indian Industry (CII) with support from the Energy Management Centre, Kerala, under an initiative of the Bureau of Energy Efficiency (BEE) said increased penetration of electric vehicles could save Kerala 0.56 million tonnes of oil equivalent (MTOE) under a 'moderate scenario' and 0.84 MTOE under an 'ambitious scenario' by 2030. These targets can be achieved by increasing the share of electric vehicles in the total 'vehicle stock' to nearly 10 lakhs under the moderate scenario and 17 lakhs under the ambitious scenario, adding 56,000 charging stations and battery-swapping infrastructure, the draft said. (Source: The Hindu, 1 November 2023)

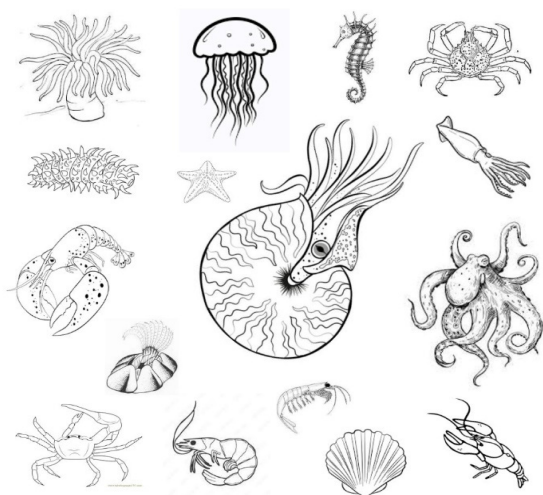
SPECIES OF THE ISSUE

Ring-legged Fiddler Crab *Austruca annulipes*



Also known as Fiddler Crab, Mangrove Fiddler Crab or Porcelain Fiddler. Found in consortiums, around mangroves, mud, and sandy bottoms, over lagoons and reefs. They feed on benthic plankton. They feed by scraping sediment up with their claws, and transferring it to their mouths where they sift out their food from the sand which is then spat out as a small pellet of cleaned sand. These pellets cover the mudflat by the end of the low tide period. Like all crabs, fiddler crabs shed their shells as they grow. If they lose a leg or claw during their growth cycle, they will have a new one when they moult!

CHILDREN'S CORNER



How many marine creatures can you identify?? And also find the odd one out which does not live in saltwater. Print it out and color them..

Answer: Sea Anemone, Jelly Fish, Sea Horse, Spider Crab, Sea Cucumber, Starfish, Nautilus, Squid, Octopus, *Crayfish*, Scallop, Krill, Shrimp, Fiddler Crab, Barnacle, Lobster

ACTIVITIES OF WWF-INDIA KERALA STATE OFFICE

Environment Education

Wild Wisdom Global Challenge

On November 8, 2023, the State-level Quiz in Kerala took place at St. Mary's College, Thrissur. Attended by students and teachers from 58 schools, the event was inaugurated by Dr. Sr. Meena K. Cheruvathur, Vice Principal of St Mary's College. Mr. A K Sivakumar, Senior Education Officer from WWF-India, welcomed the guests. Mr. Renjan Mathew Varghese, State Director (Kerala) WWF-India, provided insights into WWGC and its journey till 2023. Smt. R. Keerthi IFS, Director of Zoological Park, Puthur, Thrissur, emphasized the importance of nature conservation in her inaugural address. Dr. Manju Madhavan, Associate Professor & Head of the Department of Botany of the College, felicitated the inaugural session. Tiju C. Thomas, Associate Manager (Community Engagement), WGNL Program of WWF-India, conducted a session titled "Wild Wisdom through Lenses," showcasing wildlife through captivating photographs from his field trips.

The Top Five Teams were invited to the final round of the State-level Quiz, which was led by Dr. Jain J. Therattil, Asst. Professor, St. Aloysius College, Elthuruth, Thrissur, and the winners are:

Place	Names	School
1 st	Kiran Thomas Tyson Rishabh Rajesh Nambiar	Bhavan's Vidya Mandir, Girinagar, Kochi
2 nd	Skandan K S Nandha V H	Bhavan's Varuna Vidyalaya, Thrikkakkara, Kochi
3 rd	Joash Joby C. Sourav Shekhar	Loyola School, Sreekaryam, Thiruvananthapuram
4 th	Aagney S. Sekhar Sooryadarsh V	KV Keltron Nagar, Kannur, P O Kannur University Campus
5 th	Arpitha Shibi Harshith Shibi	KV CRPF Peringome, Kannur

The event was possible only with the help of dedicated WWF Volunteers – Anciya Antony, Murugan Peraparambil and students from St Mary's College, Thrissur.



Nature Connect

Dragonfly Festival - Wetland Biomonitoring.

Wetland Biomonitoring was conducted on 3 and 11 November and 12, 24 and 27 December 2023. Notable species included *Brachydiplax sbrina*, *Hydrobasileus croceus*, *Pseudagrion microcephalum*, *Urothemis signata*, *Thylomis tillarga*, *Ictinogomphus rapax*, *Brachythemis contaminata*, *Othretum sabina*, *Ceragrion coromandelianum* and *Agriocnemis pieris*. A review meeting was held on December 27, 2023, with volunteer teams from Vellayani Lake, Kole Wetlands, and Bharathapuzha River, presenting

findings and submitting modified presentations, guided by technical staff from Kerala State Office and partner Society for Odonate Studies (SOS).



Dr. Sujith V. Gopalan of the Society for Odonate Studies (SOS) gave a talk on the migration of *Pantala Flavescens*. Around 40 participants attended the program.



Article for SOS Newsletter

An article on the Dragonfly Festival was prepared by Renjan reviewed by Anushreedha and shared with the SOS Team to publish in their newsletter.

People 4 Planet

Tide Turners Plastic Challenge (TTPC Workshops)

The Teacher's Training Workshops (TTW) for TTPC were conducted as a joint initiative of WWF-India, Ashoka Trust for Research in Ecology and Environment – Community Environmental Resource Centre (ATREE-CERC) Alappuzha, and National Green Corps (NGC), Alappuzha. The TTW for the Teacher-in-Charges of Eco-Clubs was held at Government Girls HSS, Alappuzha, on 28 November

2023, with the participation of 73 Teachers. The second TTW was held at Government Girls HSS, Mavelikara on 30 November 2023. Seventy-one Teachers participated in the program. Ms. Anju V.N. was appointed as an Intern for the TTPC project on 15 December 2023.



TTPC Workshops at Colleges

On-ground sessions were conducted at two colleges in Alappuzha District on 28 November 2023 in association with ATREE-CERC Alappuzha. The program at S N College was organized in association with the Department of Zoology. The program witnessed sixty-six participants including students and teachers. The TTPC Orientation Session at St. Joseph's College for Women, Alappuzha was organized in association with the Department of Botany. Fifty-two participants attended the program.



Magical Mangroves 2023-24

The Magical Mangroves 2023 campaign is picking up in the State, and our Volunteers have started organizing seminars. Dr. Deena has conducted sessions at various locations in Kozhikode. The program on 19th December saw the participation of 59 students at Kadalundi.



Beach Combing

The Beach Combing program to document the shore birds including the migratory ones in Thiruvananthapuram District was carried out at Perumathura beach on 25th November 2023 and the major sightings were Common Sandpiper, Lesser black backed Gull, and Lesser Crested Tern. The beach combing at Poovar was held on 27th November. The team recorded the sighting of Greater Sand Plovers, Little and Great Crested Terns, Sanderlings, Kentish Plover, and Brown-headed Gulls. The combing at Poovar on 27th December recorded Kentish Plover, Greater Sand Plover, Common Sandpiper, Lesser Black-backed Gull and Whiskered Tern.



Waterbird Monitoring Program in Ramsar Sites

Dr. Nirmal George led the monthly Waterbird Monitoring Program at the Ashtamudi Lake, on 12th November and 10th December 2023. He conducted the count at Asramam Mangroves and nearby locations and reported 25 and 41 species correspondingly.

Thiruvananthapuram BirdRace 2023



The annual Thiruvananthapuram BirdRace was conducted on 19th November 2023. An orientation was given to the participants in Bird Race and Bird Monitoring on Friday, 17th November at the Thiruvananthapuram Museum and Zoo Auditorium. A total of sixty-six Volunteer birders including newcomers and experts observed a total of 189 species. The locations in Thiruvananthapuram for the BirdRace 2023 included twelve sites, i.e., Punnachakkari Wetlands, Aakkulam Lake including NCESS Campus, Veli Lake and Beach area, Kadinamkulam, Poovar, and forest areas, Ponmudi-Kallar, Bonacaud, Palode, Kottoor, Arippa and IISER Campus at Vithura. The teams of 5-6 birders were led by expert Praveen J, Govind Girija, Dr Sujith V. Gopalan, Arun C.G., Jaichand Johnson, Suraj S.R. Choodal Palode, Anoop S.S., Azhar Aerath, Vinod Thomas, Thrinisha T.U., Jayakrishnan S. and Anuraag Avadhany. A total of sixty-six Volunteer birders including newcomers and experts observed a total of 189 species. The Great Hornbill, Oriental Turtle Dove, Lesser Black-backed Gull, Great Eared Nightjar, and Green Imperial Pigeon. The evening get-together for experience sharing and data compilation was held at Nodal Office of Christ (deemed to be University), Vazhuthacaud. Shri. J.R. Ani, Wildlife Warden, Shendurney

Wildlife Sanctuary was the Chief Guest for the occasion. Felicitation was given by Godwin V.P., Program Coordinator of Nodal Office, CHRIST (Deemed to University), Vazhuthacaud. Govind Girija consolidated the data from the Race and presented the results, and Dr. Sujith V. Gopalan gave the vote of thanks.



Others

Workshop on Human–Wildlife Conflict

A workshop on Human-Wildlife Conflict under the awareness program series supported by the Kerala State Biodiversity Board was organized by Dept. of Zoology, Sree Sankara College, Kalady in association with WWF-India, KLSO with the title “Man & Wildlife Conflict to Coexistence – Is That a Dream?” on 9th November 2023. Around 80 students benefitted from this workshop.



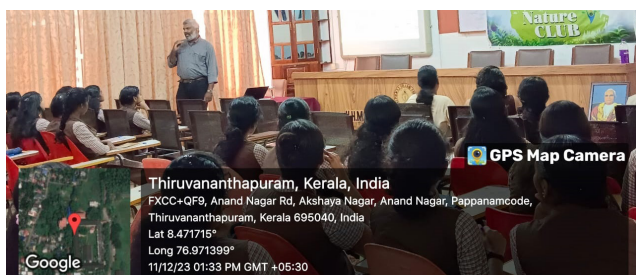
Invited talk

Renjan Mathew Varghese was invited by Ms. O. Beena, NCC Camp Coordinator, to address the participants of the 1 Kerala Girls Battalion NCC at Pangode Military Camp on 18th November 2023. The talk was on “Sustainable Development and Ecological Footprint”. One Hundred and Twenty NCC cadets attended the talk.



Invited Talk on Nature Conservation

Mr. Renjan Mathew Varghese, State Director inaugurated the Nature Club at HHMSPB NSS College for Women, Neeramankara on 11th December 2023. He spoke to the students about Nature Conservation. 70 students attended the program.



Addressing the Nature Adventure Camp participants at Thekken Kurisumala

The State Director addressed the gathering of Law Students, Kerala Law Academy who were participants in the Nature Adventure Camp organized by AMAS Kerala at Thekken Kurisumala on 9th December. There were around 40 campers.



Odonata Survey in Thiruvananthapuram Forest Division

The Odonate Survey was organized by the Society for Odonate Studies (SOS), the national partner of the Dragonfly Festival at Thiruvananthapuram Forest Division from 15th – 17th December 2023. WWF-India, Kerala State Office was invited to participate in the event and Ms. Anushreedha took part in the Survey. There was a total of 11 teams and Anushreedha was assigned the Peppara Team. The team was led by Dr. Sujith V. Gopalan and Suresh Kurup and accompanied by Mr. Chellappan and Mr. Aandavan, Forest Trackers. The team identified 21 species of Odonates. The team also observed a Hump-nosed Pit Viper, and several species of frogs and birds.



Exhibitions

The exhibition at Sree Chithira Thirunal Residential Central School on 17th November was organized as part of their Annual Science Day Celebrations. Around 1000 individuals including students and teachers at the school visited the stall. The State Director, addressed the gathering.



Amritha Kairali Vidya Bhavan

WWF-India KLSO put up the exhibition stall at Kairali Vidya Bhavan on 23rd, 24th and 25th of November 2023 as part of SPAZIO, the Science, Art & Cultural Festival in connection with their 30th School Anniversary. There were around 1500 visitors at our stall.



Meetings attended

The State Director attended the Public Lecture organized at Press Club, Thiruvananthapuram on 23rd November as part of the Jellyfish Bloom Symposium organized by the Dept. Of Aquatic Biology and Fisheries, University of Kerala.

Project Officer, Anushreedha attended the two seminars conducted by the World Institute of Sustainable Energy (WISE) on Gender and Climate Action in Kerala on 8th November 2023 and Integrating Climate Resilience into Water Management in Kerala on 9th November at the Institute of Management in Governance (IMG), Thiruvananthapuram.

Dr Kamarudheen Memorial Environment Award Function

Renjan Mathew Varghese and Anushreedha S S attended the function on 13th November 2023 organized at the Auditorium, Dept. of Botany, Karyavattam Campus, University of Kerala and the award was received by Dr P. O. Nameer.



Christmas Celebrations @KLSO



The KLSO staff and family celebrated Christmas and year-end with a trip to the mountains. The office Christmas celebrations were marked by a festive atmosphere as colleagues came together to decorate the Christmas tree. The festivities extended beyond the workplace with a small outing to Vellarada, including a camping trip that featured a trek to Kunnichimala. Supported by AMAS Kerala, dedicated volunteers of WWF-India's Kerala State Office, the camping excursion engaged 12 participants including the staff and family members of the Kerala State Office in activities like a campfire, zip-lining, and birdwatching. Everyone thoroughly enjoyed the camping trip was an opportunity for team bonding along with family members.



EDITORIAL BOARD

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