

ONE OCEAN, ONE FUTURE, ONE TEACHER AT A TIME: MAGIC OF THE OCEAN WORKSHOP IN KERALA

Dr. Monta Ray here again—the official mascot of 1OCEAN (Ocean Conservation Education and Action Network) initiative of Zooreach, endorsed by the UN Ocean Decade!

I've just returned from a fascinating adventure with the 1OCEAN team—this time, we set our sights on the beautiful shores of Kerala. Our Magic of the Ocean Workshop, held in collaboration with the Department of Education and the Department of Aquatic Biology and Fisheries, University of Kerala, was an unforgettable experience.

Supported by the National Geographic Society, this three-day hands-on workshop wasn't just another event—it became a story I'll be flipping back to in my tide journal for a long, long time. From passionate educators to vibrant discussions and inspiring activities, it was about diving deep into ocean literacy.

Day 1: Setting the Tide: A Collaborative Beginning to Ocean Literacy

The day began with the warm inaugural session that set the tone for everything to follow. The inaugural session started with a warm welcome by Dr. Divya C. Senan, Assistant Professor, Department of Education, University of Kerala. This was followed by the presidential address by Dr. T.V. Bindu, Associate Professor & Head of the Department of Education,



Dr. Divya C. Senan giving the welcome speech

who emphasized the importance of ocean literacy in classrooms.

Dr. S.M. Raffi, Associate Professor, Department of



Inauguration of the workshop

Aquatic Biology & Fisheries, delivered the inaugural address linking ocean, sustainability, and education. Finally, Ms. Tandrili Baruah, Educator, Zoo Outreach Organisation, shared the vision behind the workshop and the goal of co-creating ocean awareness with teachers.

This was followed by participants tying rakhis to one another, symbolizing a pledge to protect the ocean like siblings who have grown up beside it, followed by a quick round of introductions.



Rakhi tying ceremony

Before diving into the sessions, participants completed a pre-workshop attitude survey to reflect on their understanding and beliefs about ocean literacy. This provided a helpful



Pre-assessment attitude survey

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baseline for the learning journey we were about to begin. One of the statements explored was: "You believe you can make a difference to the climate crisis if you teach about the ocean". While several participants selected "Happy", showing a strong belief in their potential to influence change, others responded "Neutral", expressing doubts about its practicality in the current school system. Some shared that if climate education is framed only as an academic subject, students may treat it as another topic to score marks in rather than something deeply relevant. Taking these points into account, we decided to conduct the same assessment at the end of the workshop to see how participants' perspectives had evolved.

Soon, we dove into the first principle of ocean literacy: Earth has one big ocean with many features. The participants engaged in digital ocean-themed games—Salt it Right—to explore the properties of ocean water. Their eagerness to choose the correct answers turned the room into a lively and competitive space..

This was followed by Dance Beneath Our Feet activity where they understood the movement of tectonic plates and how these processes shape our ocean floor. The day progressed with a session on different marine habitats by Usha Ravindra, culminating in an introduction to Bio Mapping as a tool to observe and document these habitats.

To demonstrate how Bio Mapping could be applied, we used a reference point just outside the Department of Aquatic Biology. Armed with charts, pencils, and transparent sheets, participants filled the chart paper with colorful impressions of the area and biodiversity, drawing from both observation and creativity.

Importantly, after each activity, participants assessed the experience and collaborated with us to co-create and refine the activities—offering suggestions, sharing insights, and adapting them to better suit their own classrooms. This made the learning not just participatory, but truly collaborative.



Biodiversity seen during biomapping



Biomapping

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Day 2: Diving Deeper – Mapping, Migration, and the Web of Life

The second day picked up right where we left off—Bio Mapping once again took center stage as participants layered transparent sheets over the same area map, adding observations on biodiversity and changes over time.

Next came a session on the Anatomy of the Indian Ocean, where we delved into the remarkable underwater features that shape the ocean—ridges, trenches, seamounts. To bring this to life, participants took part in a bathymetry activity to understand how scientists map the ocean floor. Divided into two groups, they used a stick method to simulate depth measurements and created their own interpretations of what the seabed might look like. The result? Two uniquely imagined bathymetric maps—each a reflection of how perspective and data interpretation can vary even with the same tools. This sparked lively discussions on data points, math, scientific observation and precision.

Before heading to lunch, we played a round of Ocean Pictionary—with a twist! For every correct answer, teams helped a Hilsa fish “migrate” from one location to another, turning the game into a playful blend of marine vocabulary and migration.

Post-lunch, we played Jenga and explored how the game can be adapted to learn about food chains and the impact of individual actions. The activity highlighted that it’s not just one person, but everyone who plays a role—and that each action, no matter how small, can affect the balance of the whole system.

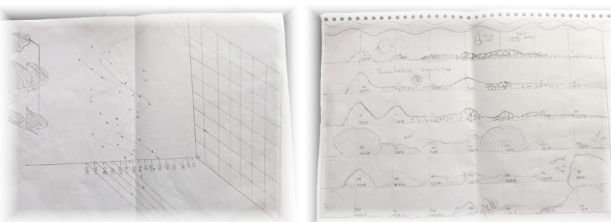
To bring the idea of ocean connectivity and migration to life, participants then took part in the Ocean Puzzle Trails activity. They followed the migration routes of marine species, solved clues, and pieced together how these journeys reveal the ocean’s interconnected nature

Following that, participants delved into the Dichotomous Key activity, where they learned how to identify organisms based on a series of guided choices—just like scientists do when classifying life forms. This hands-on exercise encouraged careful observation, critical thinking, and attention to details.

Building on that foundation, the day wrapped up with the Tree of Life activity led by Kritika P., which illustrated the interconnectedness of all living beings through evolutionary relationships.



Bathymetry activity



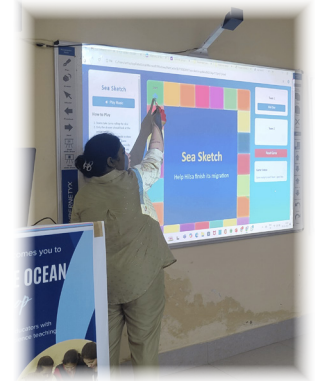
Bathymetry activity map group 1 & 2



Ocean Puzzle Trails game



Jenga game



Ocean Pictionary game

Day 3: Transforming Learning into Action

We began the final day with a striking activity called Stripes Tell Stories. Inspired by Professor Ed Hawkins' #ShowYourStripes. Participants created a colorful flag where each stripe represented India's annual temperature from 1961 to 2016.

Blue stripes marked cooler years, while red showed warmer ones, with the color intensity reflecting how hot or cold each year was. As the stripes came together, the cloth became a powerful visual timeline of climate change—telling a story of rising temperatures through color instead of words.

The participants then got down to business. The teachers then co-created their own activities, drawing inspiration from the workshop and connecting them to subjects they teach or are passionate about. One particularly creative idea emerged from a teacher who explored how English and Art could be beautifully blended—each group of students would receive a different line from a poem, which they would then illustrate. The lines and illustrations would be combined to form a collaborative visual poem, bringing both language and creativity to life.

To complete the loop of learning, we conducted the same attitude survey at the end of the workshop. This time, a shift was evident—not just in the responses, but in the confidence that radiated from the participants. All of them selected "Happy" for every statement, including the one that had previously raised doubts: "You believe you can make a difference to the climate crisis if you teach about the ocean". Concerns that once hovered around practicality, student engagement, or relevance had been replaced with newfound clarity and hope. The teachers after the workshop felt equipped, inspired, and excited to make ocean literacy a vibrant part of their classrooms.

After the post-assessment, reflection circle, and a warm thank-you session brought the workshop to a close. There were smiles all around, group photos, and heartfelt exchanges of appreciation.

Reflections from the workshop

What stood out the most? The joy of co-creation. The shared sense of discovery. And most importantly, the collective realization that ocean literacy doesn't have to be a faraway idea—it can begin right here, in classrooms, in stories, in games, and in the tide pools outside our homes.

The Magic of the Ocean workshop in Kerala didn't just teach—it inspired. And if the waves we stirred over these three days are any sign, the ripples are just beginning to spread.

To conclude, this may have been the end of our workshop in Kerala, but it's just the beginning of a shared journey—one ocean, one future, one teacher at a time.

ACKNOWLEDGEMENT

The success of the Magic of the Ocean workshop in Kerala was made possible through the collaboration, dedication, and support of many individuals and institutions. Heartfelt appreciation goes to Dr. Divya C. Senan from the Department of Education, University of Kerala, whose thoughtful coordination and warm leadership helped us conduct the workshop and create a welcoming space for educators to explore, learn, and contribute. Special thanks to Dr. Bijukumar and Dr. S.M. Raffi from the Department of Aquatic Biology and Fisheries for championing the importance of marine education and offering their unwavering support throughout the workshop. We are deeply grateful to the National Geographic Society for their generous funding and belief in this initiative. Their support has not only made this workshop possible but is helping spark a larger movement for ocean literacy across India. And finally, a warm thanks to all the participating teachers. This journey would not have been the same without them.



Tandrali Baruah, Educator, Zoo Outreach Organisation

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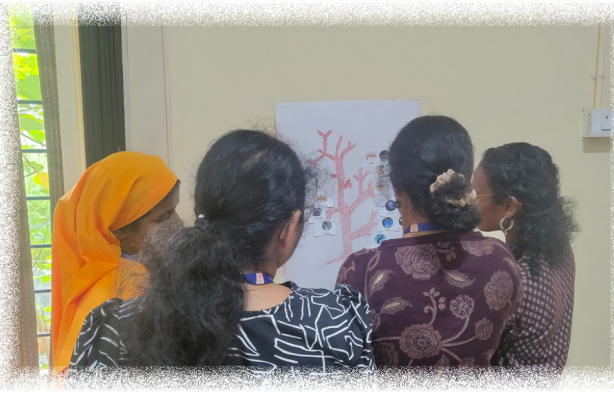
Students analyzing the area for biomapping



Stripes tell stories too flag



Teachers presenting their ideas to the class



Tree of life game



Climate change flag

