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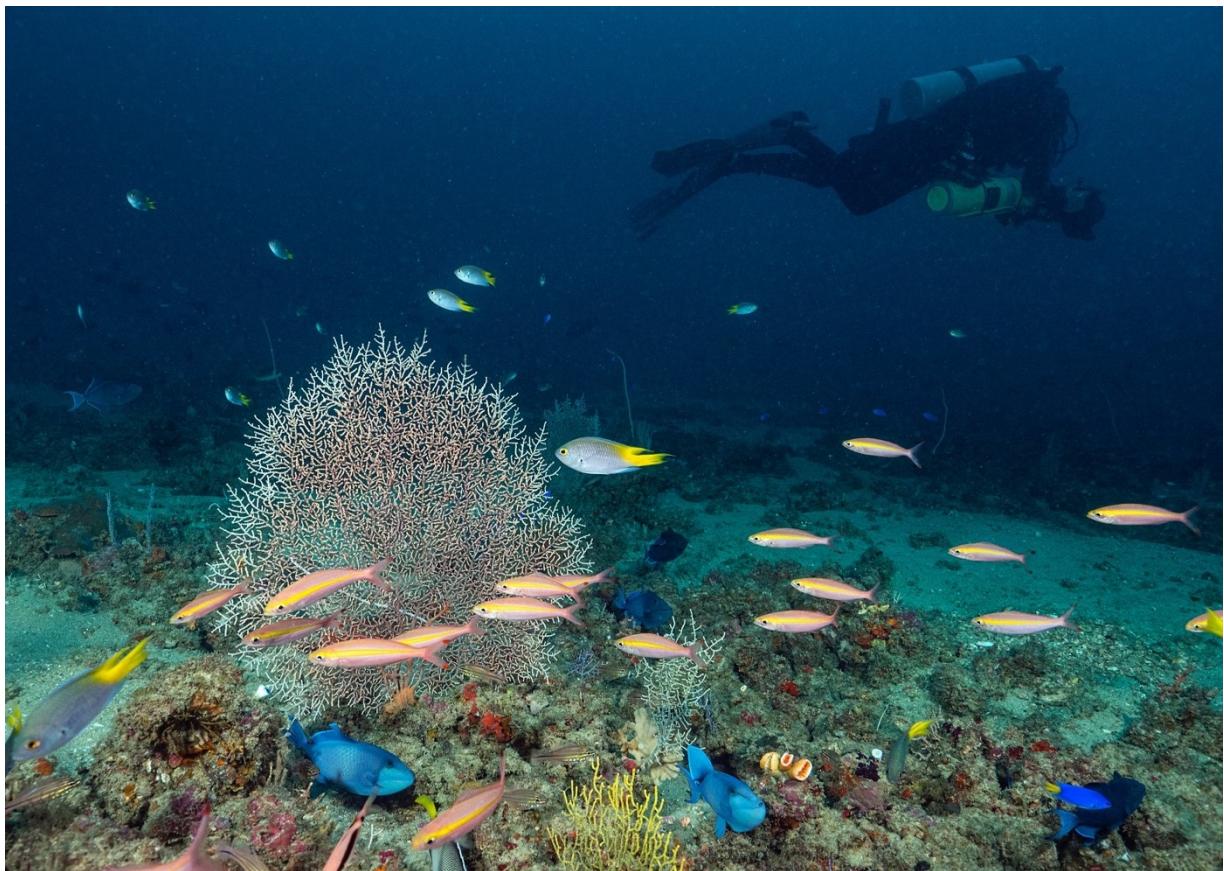
PRESS RELEASE

RESEARCH DOCUMENTS SPECTACULAR BIODIVERSITY IN DEEPWATER ROCKY REEFS OF KERALA COAST, THREATENED WITH PLASTIC DEBRIS

For the first time, the researchers documented the rich biodiversity of rocky reefs and underwater life in the Kerala coast, and few underwater sites have a rich life of the gorgonians (sea pens, sea fans) and solitary corals. These areas at a depth of 50 meters may be called “Animal Forests”, as the biodiversity is so rich, including the rare soft corals, solitary hard corals, sponges, worms, molluscs, bryozoans and ascidians, and this justifies the presence of huge schools of fish in the surroundings, says Prof Biju Kumar, who led the project. The traditional fishers in the region use these sites as their fishing sites, as they are rich in life. It is for the first time that life below water is documented from the Kerala coast, and for that matter, anywhere in India, on rocky reefs beyond 40 meters. The diving team include Umeed Mistry of Earth CoLab, Bangalore, India’s leading underwater photographer and film maker, and Jonah Skoles, Eternal Divers, Pondicherry.

Led by the project Ecomarine Team in the Department of Aquatic Biology and Fisheries, University of Kerala, the expedition aimed to explore the rich biodiversity of the Kerala coast at depths up to 100 meters, with a primary focus on rocky reefs. In addition to the Ecomarine Project supported by the European Union, the University of Kerala, through its budget speech for 2022, has sanctioned an innovative project titled “Digital Documentation of Biological and Archaeological Heritage in the Coastal Seas of Kerala”, to prepare a digital document of life below water in Kerala coast, through deepwater dives and using remotely operated vehicles.

A ground-breaking expedition off the coast of Kerala, India, has uncovered disturbing evidence of additional plastic dumps in the ocean, posing a grave threat to the delicate life below water. The discovery was made during an extensive documentation of underwater life in the Kerala coast, shedding light on the urgent need for immediate action to address the growing problem of marine plastic pollution.



“Animal Forests” in Kerala coast in deepwater rocky reef areas, dominated with gorgonians and solitary corals



Research Team (left to right): Umeed Mistry, Jonah Skoles, Biju Kumar

To the surprise of the research team, many of the underwater reefs beyond 40 meters explored during diving are dumped with plastics, a stark reminder of the magnitude of the global plastic pollution problem. The underwater sites were littered with various forms of plastic waste, including bottles, bags, fishing nets, and fragments of single-use plastics. This alarming find highlights the urgent need for increased efforts in waste management, recycling, and the adoption of sustainable practices to prevent further degradation of our oceans. Further, a serious thought on upstream management of the plastics, especially the rivers and sewers draining into the ocean, with truckloads of plastic waste every day.



Furthermore, the documentation of underwater life in the Kerala coast revealed the direct impact of plastic pollution on marine species. The researchers observed entangled marine creatures struggling to free themselves from discarded fishing nets, while others were seen ingesting plastic fragments, mistaking them for food. Such incidents highlight the devastating consequences of plastic pollution on marine biodiversity and the fragile balance of our ecosystems. Many deep-water reefs are covered with plastic nets, which may be either discards from the ocean, or the ones deserted by fishers due to entanglement. These 'ghost nets' trap many creatures every day, and remain a permanent threat to underwater life unless removed. "The discovery of additional plastic dumps in the ocean off the Kerala coast is a distressing wake-up call. It is crucial that we take immediate action to reduce plastic consumption, promote responsible waste management, and develop sustainable alternatives to plastic. Our marine ecosystems and the livelihoods of coastal communities depend on it," says Biju Kumar.

In response to this alarming revelation, the research team calls for increased public awareness, governmental intervention, and corporate responsibility to combat the plastic pollution crisis. They urge individuals to reduce their plastic footprint, participate in coastal clean-up initiatives, and support organizations working towards sustainable solutions. Moreover, they emphasize the need for stricter regulations on plastic production, usage, and disposal and the development of innovative technologies for plastic waste management.

The study of life below water is only in its first phase, and the ongoing investigations of various kinds of reefs from Thiruvananthapuram to Kasaragod will unravel the richness of biodiversity and the emerging threats to the system. Further, the team will also survey the shipwreck sites on the Kerala coast, says Biju Kumar.

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