

Monthly Programme Report

The Cochin College BMC

Institution Name: The Cochin College

BMC Code: ERM/2022/31

ProgrammeTitle: Beat Ocean Plastic Pollution

Program Category: Awareness program(Seminars/symposia/workshops/others)	Activity Type: Action Program	No.of participants: 30
Planned Date: 31-01-2024	Renewed date: -	Program Date: 31-01-2024
Budgeted Amount: Rs 0/-	Total expenditure: Rs 1000/-	Extra Amount: Rs 1000/-

Brief Report

Bhoomitrasena volunteers participated in an awareness campaign at Munambam Harbour to beat ocean plastic pollution. Volunteers played a flashmob to share the idea of protecting our oceans from plastics. They painted the walls of harbour with needs, thoughts and ideas of preventing our oceans being polluted by plastics.

Expenditure Statement

Item	Expenditure	Remarks
TA/DA	Rs 1000	
Budgeted Amount		Rs 0
Total Expenditure		Rs 1000
Extra Amount		Rs 1000

Photographs



Bhoomitrāsena Club, Nature Club,
Department of Zoology, The Cochin College
in association with Planatearth NGO, aluva
Fundes by HCLTech conducted a
awareness compain "To beat Plastic
Pollution" at Munnambam Beach.



Marine invasive species thrive on plastic waste: Kufos study

Harmful Algal Bloom Produces Domoic Acid Toxic To Organisms

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Exotic Besides choking marine life, the plastic waste in the sea and waterbodies is also serving as a sexure platform for invasive species like algal population to flourish, according to a new study by Kerala University of Fisheries and Ocean Studies (KUFOS).

Marine microbiologists at Kufos found that the layers of floating biofilms forming on large plastic sediments are colonised by several algal communities.

The plastics were collected from four stations in Edkoichi, Mumbai. Rannam beach, and Chellanam in the Venzard lake system and Cochin coastal areas and the study recorded a total of 16 species of phytoplankton.

A harmful algal bloom (HAB) species invasive to this region called *Pseudo-nitzschia americana* was found attached to the plastics used in a control Venetian Lake and the coastal region of Kofu. They produce domoic acid, a potent neurotoxin that causes amnesic shellfish poisoning in humans. The researchers found that the algae were attached to the plastics in the same way as they are found in the water and found that there were layers of communities on them. As the fish could not identify algal and bacterial presence in these materials, there were harmful layers on them, and they were

sediment is acting as a sink for various pollutants. "We were looking at whether the floating plastics were getting colonized and found that there is a huge presence of invasive species in the ecosystems," she added.

It is a dangerous development that the plastic debris is providing a substrate for microbes and when they float, they carry these to newer places. The team is now looking at culturing these

ing at culturing algae on fresh plastic to see how fast these populations grow and colonize on these substrates. "The samples that we had selected were almost uniformly trawdy and dirty and we could not identify how old these plastics were," Lippin-

She said that this embra-

sion said that this emphasizes the potential ecological threat posed by certain microalgal species thriving on plastic surfaces. The study

establishes a direct relationship between the abundance of microalgal species on plastic substrates and diversity aspects and how important it was for the society to address plastic marine

address plastic menace.