

Soft coral poses threat to marine biodiversity



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Fishermen's livelihood also at stake

Colonies of snowflake coral (*Carijoa riisei*), an invasive species recently documented off the coast of Thiruvananthapuram and Kanyakumari, could pose a serious threat to the marine ecology of the region, according to scientists.

Scuba divers working for Friends of Marine Life (FML), a local NGO, have recorded the presence of several colonies of the fast-growing alien species amid barnacle clusters on the rocky reef off the coast of Kovalam in Thiruvananthapuram and Enayam, Kanyakumari.

The documentation was done as part of a research project harnessing the traditional knowledge of the fishermen community to assess the marine biodiversity of the region.

The snowflake coral is known to inhabit reefs and underwater structures such as shipwrecks and piers, attaching itself to metal, concrete and even plastic. It is considered an invasive species because of its capacity to dominate space and crowd out other marine organisms.

Researcher Robert Panipilla, who coordinated the project, said the colonies of the soft coral were documented at 10 m depth off Kovalam and 18 m depth off Enayam. "Last month, we deployed scuba divers after receiving information from local fishermen that the species had colonised parts of the reef," he said.

A native of the tropical Western Atlantic and the Caribbean, *C.riisei* was first reported as an invasive species from Hawaii in 1972. Since then, it has spread to Australia, Thailand, Indonesia and the Philippines. In India, it has been reported from the Gulf of Mannar, the Andaman and Nicobar Islands, Gulf of Kutch and Goa.

With its capacity to thickly settle and occupy a variety of surfaces, *C.riisei* can destabilise the marine ecosystem, says K. Padmakumar, Pro Vice Chancellor, Kerala University of Fisheries and Ocean Studies (KUFOS). He fears it will crowd out other species like corals, sponges, algae, ascidians that contribute to the rich marine biodiversity of the region. Because of the lack of baseline data, *C.riisei* is not recognised as an invasive species in India.

Prof. Padmakumar, who had published the presence of *C.riisei* in the Gulf of Mannar in 2011, said the presence of the soft coral colonies off the southern coast could also lead to livelihood issues. "The mussel beds off the Vizhinjam coast are vulnerable to *C.riisei* invasion since the coral preys on the mussel larvae," he says.

Mr. Robert said the FML would share the findings of the survey with the scientific community to evolve a management strategy for the invasive species.

