3D-printed coral reefs? Can this new approach to reef decline revive coastal ecosystems?

Several acres of 3D-printed artificial reefs are currently being planted in coastal North Carolina to bolster the region’s biodiversity and promote new growth of natural reef.

The reefs, 3-foot concrete cubes called “Exoforms” that contain a lot of void space to allow marine life to thrive, are being planted in the Palmico River, a large estuary system on North Carolina’s Atlantic Coast, Tad Schwendler, COO of environmental solutions firm Natrix, told ABC News.

The roughness and irregularities of the structures leaves room for species at the bottom of the food chain, such as algae and other microorganisms, to grow, which then attract the larger species, Schwendler said.

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In addition to promoting biodiversity, artificial reefs have been found to capture carbon, according to a study published earlier this month by the Friends of the RGV Reef, a Texas-based conservation organization, and the University of Texas at Rio Grande Valley.

The two-year study found that sponges and soft corals that cover the RGV Reef, the largest and most complex artificial reef off the Texas coast, do contain high amounts of carbon dioxide “in some significant proportion,” the researchers found.

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