

'Mini reefs' installed to bring area waters back to life while helping reduce harmful algae

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If mangroves are the oceans' rain forests, producing and sheltering abundant life, then sea-walled canals and shorelines are its deserts.

A Florida nonprofit is aiming to change that. [Ocean Habitats Inc.](https://www.oceanhabitatsinc.com/) (<https://www.oceanhabitatsinc.com/>), kicked off its "Thousand Reef Challenge" on Friday at Fort Myers Beach's [Fish Tale Marina](https://thefishtalemarina.com/) (<https://thefishtalemarina.com/>), where owner Al Durrett has bought 40 of the "mini-reef" units to place beneath his floating docks.

Made of polypropylene panels (think the U.S. Postal Service's mail totes), tubes and rope, the lightweight-but-sturdy structures quickly become attractive real estate for teeny critters like sea squirts, barnacles and oysters that move in and begin attracting bigger critters like crabs and gamefish. Once fully populated, the crustacean/tunicate team inhabiting each unit can filter between 18,000 to 90,000 gallons of water a day, said founder David Wolff, but the average is about 30,000. The \$250-per-unit cost comes with a tax deduction, Wolff said, because Ocean Habitats is a 501(c)(3).



Artificial reefs built by David Wolff of Ocean Habitats will soon be under docks at the Fish Tale Marina. Al Durrett, the owner of the marina bought 40 of the reefs. The reef mimics a mangrove habitat that will attract crabs, oysters and other animals that naturally filter the water. (Photo: Andrew West/The News-Press USA Today Network-Florida, The News-Press)

If area homeowners and businesses take him up on his challenge, it will amount to cleaner water for the region, he said. "One thousand of these mini reefs on average would be filtering somewhere around 30 million gallons of water every single day. That's almost 11 billion gallons a year," Wolff said. "They would also be helping to produce 300,000 native fish and 200,000 native crabs, shrimp and crustaceans."

Wolff grew up in Florida, then got a degree in marine biology and oceanography from the University of South Florida. After a detour into real estate, he decided to return to his watery roots.

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"Growing up, I always heard people talking about how it was in the '40s and '50s," compared to the barren underwater landscapes he sees now. "It's time to do something different," Wolff said. "With these, you can see the water come back to life again. It's amazing."

Durrett said he's happy to help launch the project at his marina, which he said has always been committed to protecting Estero Bay and area waters.

James Douglass, an associate professor of marine and ecological studies in FGCU's Water School, said this is a good step in that direction. "I'm very excited to see people waking up to the idea that these humble organisms in the water – the oysters, the barnacles and the mussels – if we just give them a place to live, they can help clean up the water."

By the way — [FGCU launches Water School as it tries to expand research footprint \(/story/news/2019/03/22/fgcu-reveals-big-dreams-launches-new-water-school-initiative/3201990002/\)](#)

And — [FGCU student researchers head to sea to check the red tide-devastated zone they found last year \(/story/tech/science/environment/2019/02/15/still-dead-fgcu-student-researchers-head-sea-check-oxygen-starved-red-tide-devastated-zone-they-found/2811386002/\)](#)

Douglass points out that the mangrove fringe around Fort Myers Beach, much of which was obliterated by development, is itself a reef.

"When we think of reefs, you usually think of the sparkling coral waters of the Florida Keys, but many don't realize that we have reefs in our muddy waters of Estero Bay," Douglass said. "They're not made of coral, but of oysters, mussels, barnacles and other organisms we call filter feeders, and these are great organisms in the environment because they eat the particles of algae out of water and they can help control harmful algae blooms like the red tide we had last summer."

Ocean Habitats' mini-reefs "return a little bit of natural function to the man-made shorelines," Douglass said. Their underwater latticework can serve the same role as mangrove roots, giving a place for filter feeders to settle, he said. "And in addition to filtering the water and cutting down on algae blooms, they provide a habitat for small organisms like shrimp, crab and the small fish that are the base of the food chain for the larger fish that we all love to catch and eat."

After the event at Fish Tale, Wolff headed to an Estero Island home to install another unit, and was soon approached by curious neighbor Ronnie Hopper. After hearing Wolff describe how they work, Hopper bought one on the spot for his own dock.

"Anything that will help this water," Hopper said, "We want to contribute and be part of it."

Photos: [Red tide recovery continues with Redfish release in Pine Island \(/picture-gallery/news/2019/03/12/red-tide-recovery-continues-redfish-release-pine-island/3142188002/\)](#)

Recently: [Lost deep-water dolphin calf euthanized on Fort Myers Beach \(/story/tech/science/environment/2019/04/24/rare-stranded-rough-toothed-dolphin-didnt-make-it-euthanized-early-wednesday/3559758002/\)](#)

More: [Celebrate Earth Day every day by joining the #trashtagSWFL challenge \(/story/tech/science/environment/2019/04/26/celebrate-earth-day-every-day-joining-trashtagswfl-challenge/3549758002/\)](#)

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