

[<Back](#)



## **2000 SeaWorld Environmental Excellence Award [see details below](#)**

In a few months, Mandarin High School teacher [Alex Waters](#) and his students should see whether hunks of concrete can bring life to Northeast Florida's coastal waters.

Waters' students are part of a project this winter designed to place reef balls - rough-hewn, hollow concrete cups riddled with holes - on the sandy bottom of the Atlantic Ocean off Ponte Vedra and St. Augustine.

In the next year, about 700 should start providing shelter for fish and homes for coral off Ponte Vedra Beach and St. Augustine Beach, all part of the Charles H. Kirbo Memorial Reef project. ([Reefball Foundation](#))

The balls are being made now by volunteers who include Waters' 22 Marine Science Research students, as well as others from St. Augustine High School and Jacksonville University.

"By next spring, we will definitely see some growth on it and some fish populations," Waters said. "They [his students] will be able to see the fact that Jacksonville's offshore waters have a very productive and varied population of marine organisms.

"This will allow them to go out of the classroom and see it up close and not on TV."

Junior Matt Blinkhorn is one of 10 students getting certified to dive on the site after he helps make and place 400-, 1,750- and 4,000-pound reef balls this winter. He can't wait to see what grows there this spring, when he will help tally the fish and coral growth.

"I know it helps the ecosystem in the water, and most of the real reefs have problems," he said. "They are supposed to be protected, but tourists touch them and break off pieces, so the more we can make and put down, the more there will be to look at, and hopefully they will be protected."

Artificial reefs are nothing new. Diving associations have been sinking old cars, airplanes, used tires and ships for more than a decade to provide new homes for game fish and coral. But veteran Bradenton diver Todd Barber said those objects don't work well, so he and a group of fellow divers came up with reef balls in 1993 to improve upon the "junk" he said was being used for artificial reefs.

"We wanted to mimic a reef and not drop something that would just attract fish. We also wanted to be ecologically correct. Those cars disintegrate and rust," Barber said. "We looked at natural reefs and one of the most common is brain coral. So we came up with the idea of something that looked normal with a rounded shape."

Reef balls range in size from a 35-pound "Oyster Ball" to a 4,000-pound "Ultra Ball," and were first dropped off West Palm Beach in 1993. Barber said they are so overgrown with coral now that you can't tell the difference between a real coral and a reef ball. In fact, there are about 50,000 reef balls in use around the world in 500 projects, many built from molds donated via the grant program of the Woodstock, Ga.-based Reef Ball Foundation.

"When people take time making a reef, they don't tend to think a car body or tire is a good thing," Barber said. "We provide free molds to any school that wants to build and deploy it as a way to get the word out."

The foundation also established the Kirbo Memorial Reef project, which will see 700 reef balls placed off Ponte Vedra and 200 more off the St. Augustine Lighthouse by early spring. The project is named for an Atlanta attorney who served as an adviser to President Jimmy Carter and was actively involved in nature preservation until his death a few years ago; his daughter Kathy is now director of the Reef Ball Foundation.

Thanks to the foundation's \$80,000 trust fund, an artificial reef will be established off Northeast Florida, said memorial reef director Larry Beggs.

Kirbo's daughter's requirement was to provide education and community awareness, research and to build the reef, Beggs said.

"Under those criteria, I set out to involve the local high schools, Jacksonville University, the local reef research team and offshore anglers," he said. "The kids learn about reef ecology and how to build them, and we are setting up a reef grid system where these students will be able to go out over the next five to 10 years and do research on."

St. Augustine High School teacher Phil Stewman's marine biology class was already building reef balls as part of their school's Sea Explorer program when they were enlisted into the memorial reef program. When Waters decided his students should do a reef ball project, they joined up, too, and now help volunteers make 400-pound "Bay Balls," 1,750-pound "Pallet Balls" and 4,000-pound Ultra Balls in the Music Shed on Bay Street.

When they are done, barges will haul the balls to sea, then cranes will place them on the sea bed. Student dive teams will begin checking on fish and coral growth this spring.

"Hopefully I will see a huge population of fish and a lot of coral," Blinkhorn said. "It would be cool to see how bare it is when you put it down, then what it looks like in 15 or 20 years."

Waters' classes plan to make more reef balls, either placing them at the memorial reef or another nearby, which he said might be nicknamed the Mandarin High School Explorer Reef.

Contact Alex Waters for more information. [awaters@mediaone.net](mailto:awaters@mediaone.net) -- let him know you that you saw the article on the MSEC webpage :)

## Reef Project Wins \$10,000 Grant

The Mandarin High School Reef Research Class has won \$10,000 for its project and all expense-paid trips for two students and their teach Alex Waters to attend the awards ceremony at Sea World of California.

The class is one of eight schools across the country to win the 2000 SeaWorld Environmental Excellence Award, which also includes 100-T-shirts to share with the school and community.

The student project involves constructing artificial reef components made of concrete called reef balls, which are used to improve Jacksonville's offshore reef system.

The reef balls mimic natural coral heads and replace damaged reefs or create new ones. The reef balls made at Mandarin High School will be added to 500 that already have been constructed and will be deployed in June.

