

deployment in 1993 has shown them to be very effective fish habitats. Under a license agreement with the inventor, commercially produced tetrahedrons are available from Rinker Materials Corporation, attention Mr. Jeff Porter, at (407) 820-8415.

Reef Balls

In a shining example of good ol' American ingenuity, inventor Jerry Barber and his son Todd have come up with still another low-cost, environmentally safe answer to building and deploying artificial reefs. They call their brain-child Reef Balls. Although the concept has undergone years of development and several generations of refinement, Reef Balls are essentially a realization of Jerry's original idea to just "buy some big beach balls, coat them with concrete and roll them down the beach." Of course, the end product was a little more sophisticated than that.

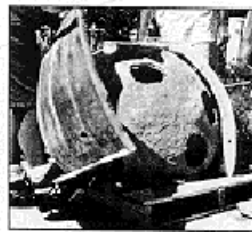
Traditionally, placing specially manufactured artificial reefs is a very expensive and labor-intensive endeavor. Reef Balls, on the other hand, require nothing more than a few divers and a small boat. Because they are molded around a reusable inflatable bag — like Jerry's beach ball idea — the modules are buoyant. So, even modules weighing over a ton can be easily towed to the desired area. Then, after deflating the bag, they're gently dropped into place in the desired location. The number of modules used dictates the eventual size of the reef. Currently, Reef Ball artificial reefs, ranging from only a few modules to thousands, are attracting marine life in locations as diverse as the Caribbean, Florida, South Carolina, Georgia, Maryland, New York and British Columbia. Internationally, Reef Balls have been deployed in England and Mexico, and most recently, massive projects involving over 45,000 modules are under consideration in Jamaica and Kuwait.

Working in concert with a number of reef scientists, environmental engineers and concrete companies, Reef Balls are not only environmentally safe, but manufactured for very precise

resource management goals. By altering the concrete mixture, surface texture and hole-size, modules can attract different types of organisms. For example, in South Carolina and Georgia, granite was added to the concrete to promote soft coral development.

In Florida, where the growth of hard corals was the objective, limestone was added to the mixture. The size of the holes helps determine the size of the fish attracted, and the rough surface texture ensures an ample fouling assemblage and a healthy community of invertebrates. As they're environmentally inert, marine life can move onto the structures immediately upon placement (something that's not possible with traditional concrete structures). Some studies have even shown reefs constructed of Reef Balls to produce up to three or four times the species diversity and double the amount of biomass (a measure of all living organisms) than on other types of artificial reefs.

Reef Balls are already attracting a lot more than fish; they have been featured on CNN, and in *USA Today* and *Popular Science*. So don't be surprised to see the Barbers' invention sometime on an existing — or future — dive site. For more information, you can contact Todd Barber, Reef Ball Development Group, Ltd., 7085 Chappell Circle, Doraville, GA 30360; phone 404-840-8389; fax 404-242-9033.



Three weeks after sinking, dense algae, hydroids and several small fishes surround a reef ball sunk off Florida's Gold coast.