REEF BALL MONITORING DIVES

By Todd Barber, President & CEO, Reef Ball Development Group, Ltd.

On November 12th, two Reef Ball monitoring dives were made with state artificial reef coordinators and various government officials who are members of the Gulf and Atlantic States Marine Fishery Commission. The group loaded up on a dive boat donated by Scuba Quest and headed south to the M-17 Reef Ball reef located about 9 miles out from Venice Pass. The captain anchored us just south of the patch of 200+ Reef Balls.

First in the water were the "Fish Counters", (folks from Florida Fish and Wildlife Conservation Commission, Division of Marine Fisheries, Bureau of Marine Fisheries Management) armed with slates and pencils to document the fish on the Reef Balls. Next, was myself and others with video cameras followed by the rest of the group.

Upon descent, I saw five groupers lined up in the sand, curious about the human visitors to the Reef Balls. It was a sure sign the Reef Balls were nearby. About twenty swift kicks and soon the Reef Balls appeared.

The first Reef Ball shocked even me, the growth was so fantastic. I stuck my camera inside to get an image of a 12 inch long Jewfish. This was the smallest Jewfish I had ever seen, perhaps evidence that they are reproducing since the protected status was given to them several years ago.

As we approached the central area of Reef Balls, thousands of fish began to appear . . . groupers, snappers, amberjacks, hogfish, filefish and even tropicals such as Blue Angels, Grey Angels and Beau Gregories. The fish counters were indeed busy this morning!

The growth was the real shocker still! These Reef Balls were only 3 years old, yet every single Reef Ball harbored lots of hard corals, 14 kinds of tunicates (small sea creatures with saclike bodies enclosed in a leathery membrane with an opening through which the water enters and leaves the pharynx; a sea squirt is one example) and they sported oculina corals - some over 2 feet tall!

Jan Culberson of the Texas Artificial Reef Program confirmed that, indeed, her Texas Reef Balls were covered in oculina, too. Seems oculina corals really love Reef Balls! (This was important to me because I know efforts are being made to recover important oculina spawning grounds in 800 feet of water on Florida's East Coast which were destroyed by trawling and fishing.)

Out of the corner of my eye, I noticed a 70 pound Jewfish hiding in the sand. I filmed the Jewfish as he entered a Reef Ball and stayed despite my camera being only 4 inches from his/her mouth. Still a smaller Jewfish, it was nice to see how much they like the Reef Balls.

Later on the boat, Larry Beggs of Reef Innovations reported playing with a beautiful sea turtle in a Reef Ball. Others reported seeing beautiful purple and yellow nudibranchs (shelless snails) and starfish of various types. Bill Figley of the New Jersey DNR commented that he was impressed that after 3 years there was no "Subsidence."

NOTE: Subsidence is a term Artificial Reef managers use to denote when material sinks into the sand or mud of the bottom. It was a major concern because back in the 1980's and early 90's, some artificial reefs were designed with no bottoms to try to save costs for shipping by stacking, such as the plastic Van Dorin Domes, concrete Grouper Gettos™(pyramids) and the similarly copied Fish Havens™(pyramids). These materials were prone to subsidence since they did not have bottoms. Subsidence can occur with any material when proper surveys are not conducted. Reef Balls can be engineered with larger flat bottoms when needed for softer sands or mud bottoms.

Next we headed north to M-4, Reef Balls and concrete culvert about 6 miles west of New Pass in Sarasota. We positioned the boat over the "Petey Palmer Reef" - 23 Reef Balls with the cremated remains of Carlton "Petey" Palmer and slipped into the water.

We ended up between "Petey" and the concrete culverts. We started on the culverts and saw several snappers and some angelfish. Then we came to the Reef Balls; it was hard to make them out at first because the menhaden or porgy fish were schooling in the shape of Reef Balls so thick all I could see was fish.

As we approached, the Reef Balls emerged where the schools split to give us a view. Below were hundreds of fish, especially the flounders, groupers, lizardfish, snappers, Spanish mackerel, king mackerel and a 6 foot barracuda apparently interested in eating the schooling baitfish.

Once again the growth was fantastic . . . it looked so much better than the culverts that I could feel my chest swell with pride. The culverts had been down for 10 years, and these Reef Balls only one, but the Reef Balls actually had better growth!

When we found the main group of Reef Balls, the story was the same and again I was proud. I followed 3 huge Jewfish, one of them almost 6 feet long, as they went back and forth between the Reef Balls and the culverts obviously claiming all of the reef as their own.

I noticed some experimental Reef Balls with concrete poured inside with secondary domes and noted that the smallest of fish seemed to like this idea . . . I made notes to pass along to future builders of Reef Balls.

Monitoring helps managers, scientists and designers alike to build better and better Reef Balls. These reports are valuable aids in shaping the future of our world's aquatic habitats!

> Tampa Bay Watch purchased 6 Reef Ball molds last month for a sea wall program in Tampa.