



AQUANEWS



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Tire Reef Off Florida Proves to Be a Disaster By BRIAN SKOLOFF, AP

FORT LAUDERDALE, Fla. (Feb. 18) - A mile offshore from this city's high-rise condos and beachside bars, where glitz and glamour mix with spring break revelry, lies an underwater dump - up to 2 million old tires strewn across the ocean floor.

'They're a Destruction Machine'

A well-intentioned attempt in 1972 to create what was touted as the world's largest artificial reef made of tires has become an ecological disaster.

The idea was simple: Create new marine habitat and alternate dive sites to relieve pressure on natural reefs, while disposing of tires that were clogging landfills.

Decades later it's clear the plan failed miserably.

Little sea life has formed on the tires. Some of the bundles bound together with nylon and steel have broken loose and are scouring the ocean floor across a swath the size of 31 football fields. Tires are washing up on beaches. Thousands have wedged up against the nearby natural reef some 70 feet below the sea surface, blocking coral growth and devastating marine life. Similar problems have been reported at tire reefs worldwide.

"They're a constantly killing coral destruction machine," said William Nuckols, coordinator for Coastal America, a federal group involved in organizing a cleanup effort that includes Broward County biologists, state scientists and Army and Navy salvage divers.

Gov. Charlie Crist's proposed budget includes \$2 million to help to dispose of the tires. Broward County will manage the work onsite, and military divers will use the effort

as part of their annual training missions at no cost to Florida.

A month long pilot project is set for June. The full-scale salvage operation is expected to run through 2010 at a cost to the state of about \$3.4 million.

"The size of the salvage job has just been way too massive and expensive for county and state government to handle alone," Nuckols said.

Ray McAllister, a professor of ocean engineering at Florida Atlantic University, was instrumental in organizing the 1970s tire reef project with the approval of the U.S. Army Corps of Engineers.

McAllister helped found Broward Artificial Reef Inc., which got tires from Goodyear and organized hundreds of volunteers with boats and barges. A Goodyear blimp even dropped a gold-painted tire into the ocean at the site to commemorate the start. It's unclear how much it cost to build the reef, but McAllister said his group raised several thousand dollars. The county also chipped in, and Goodyear donated equipment to bind and compress the tires.

A 1972 Goodyear news release proclaimed the reef would "provide a haven for fish and other aquatic species," and noted the "excellent properties of scrap tires as reef material."



(Continued on page 3)

AQUANEWS

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ANNUAL MEMBERSHIP FEES ARE DUE

Rockland Aquanauts Organization
2007 Dues

I guess it is that time of the year again, Membership Dues are due. Last year all our members received much more than they gave out to the Organization. As usual you will be receiving a tax donation for the first \$25.00. All members who attended the Annual Dinner not only received money off their own dinner but they also received money off their guests dinner. Everyone whom attended also received prizes, some worth many times the cost of their Dues. Don't forget the Annual Picnic as well as all the BBQ lunch's after the Lake Dives.

So please send in your \$42 dues early to;

Rockland Aquanauts Organization
c/o
Paul Galeazzi Jr.
4 Greensward Drive.
Valley Cottage New York 10989

Notice

The Rockland Aquanauts are currently looking for a new meeting place, does anyone have any suggestions?

Email us: info@rocklandaquanauts.org

Members of the Rockland Aquanauts Organization Inc.

We need articles for our newsletter! Any help is appreciated.
Contact our webmaster webmaster@rocklandaquanauts.org

Rockland Aquanauts Organization Inc.
Mission Statement:

To provide, promote, and advance environmental protection, care, and voluntary clean-up of waterways by any and all lawful means; to promote the importance and care in every manner possible by environmental awareness and otherwise; to purchase, print, publish, and circulate literature to promote the importance and care of the waterways and the work of the Corporation. To perform all acts the Corporation may deem appropriate or advisable in such operation; to establish, provide, and voluntary clean-up waterways, to encourage, support and subsidize the cleaning and protection from pollution.

Tire Reef Off Florida Proves to Be a Disaster

(continued from page 1)

"The really good idea was to provide habitat for marine critters so we could double or triple marine life in the area," McAllister said. "It just didn't work that way. I look back now and see it was a bad idea."

Deep Sea Life Discovered

In decades past, tire reefs were created off coastal states and around the world from Australia to Africa.

"We've literally dumped millions of tires in our oceans," said Jack Sobel, a senior Ocean Conservancy scientist. "I believe that people who were behind the artificial tire reef promotions actually were well intentioned and thought they were doing the right thing. In hindsight, we now realize that we made a mistake."

No one can say with certainty why the idea doesn't work, but one problem is that, unlike large ships that have been sunk for reefs, tires are too light. They can be swept away with tides and currents from powerful storms, and marine life doesn't have a chance to attach. Some scientists also believe the rubber leeches toxins.

Virginia tried it several decades ago but Hurricane Bonnie, which hit the coast as a Category 3 storm in 1998, ripped the tires loose, sending them on a slow march south. They eventually littered some North Carolina beaches.

New Jersey scientists thought they had a solution to the weight problem - in 1986, the state began a small reef project with about 1,000 tires split in half, bound together and weighted with concrete.

It didn't work. Pieces of rubber broke loose and floated free.

"We had to go up and down the coast of New Jersey and collect 50 to 100 of those pieces that were all along the beaches," said Hugh Carberry of New Jersey's Department of Environmental Protection.

The state then hatched a new plan to stack tires 10-high and fill the cylindrical centers with concrete. Each bundle weighed about a ton.

While they stayed in place, scientists soon learned it was cheaper and more effective to make the reefs out of concrete balls because the tires didn't have enough surface area for marine life to attach.

Indonesia and Malaysia mounted enormous tire reef programs back in the 1980s and are just now seeing the ramifications from littered beaches to reef destruction, Sobel said.

Most states have since stopped using tires to create reefs but they continue to wash up worldwide. In 2005, volunteers for the Ocean Conservancy's annual international coastal cleanup removed more than 11,000 tires from beaches.

The tires retrieved from the waters off Fort Lauderdale will be chipped for use in road projects and burned for fuel, among other reuses, as part of Florida's overall aggressive tire disposal program, said Michael Sole, chief of the state's Department of Environmental Protection.

"It's going to be a huge job bringing them all up," Sole said. "It's vigorous work. You have to dig the tires out of the sand."

Broward County marine biologist Kenneth Banks said the tires have degraded little, still bearing raised writing and whitewalls. They were dumped on sandy bottom between two natural reefs running parallel to shore. The biggest problem now is the loose tires gathered along the backside of the inner reef.

"If you look there now on the lower reef face there's two or three tires deep and nothing under it. Things just can't live there," Banks said. "It's hard to dive anywhere out there without seeing tires. It's really overwhelming ... like a landfill."

LDEO PUBLIC LECTURE SERIES SPRING 2007

Sunday, March 18



Suzanne Carbotte, Ph.D.
Doherty Research Scientist
Lamont-Doherty Earth Observatory

John Diebold, Ph.D.
Senior Research Scientist
Lamont-Doherty Earth Observatory

G. Michael Purdy, Ph.D.
Director
Lamont-Doherty Earth Observatory

A New Era in Ocean Exploration:

Introducing Research Vessel *Marcus G. Langseth*

Oceans cover about three quarters of the Earth's surface. Although much has been learned about the seafloor and sub-floor in recent decades, much remains to be explored. The panel will describe a wide range of ship operations and scientific investigations of Lamont's newest ocean-going research vessel, the 235-foot *Marcus G. Langseth*.

This lecture is sponsored by the Lamont-Doherty Alumni Association.

Sunday, March 25



Dallas Abbott, Ph.D.
Adjunct Research Scientist
Lamont-Doherty Earth Observatory

Cosmic Impact! Evidence from Madagascar

A tsunami wave as high as a 30-story building. Ocean water vaporized, seafloor rock and shells melted, and unprecedented torrential rains. What could cause such an event? Did it ever actually happen? Giant sand dunes in Madagascar are revealing strong clues. Hear exciting new evidence for a massive cosmic impact in the Southwest Indian Ocean during the Middle Ages.

61 Route 9W, Palisades, NY 10964
Monell Building Auditorium

All lectures 3:00 p.m. to 4:00 p.m.

Admission is \$5.00 at the door - Light reception to follow - Wheelchair-accessible
Due to space limitations, registration is recommended

For registration and more information, contact: (845) 365-8998 or events@ldeo.columbia.edu



South African Sets World Scuba Diving Depth Record

By Justin Nyberg

On June 10, Nuno Gomes, a 52-year-old civil engineer from South Africa, descended to a depth of 1,044 feet in the Red Sea, deeper than any scuba diver has ever gone before, according to reports by the Cyber Diver News Network and South African newspapers.

“That’s getting way down there,” said Hal Watts, president of the Professional Scuba Association International. “Even for a professional diver that is really, really deep.”

The previous depth record was held by British dive instructor Mark Ellyatt, who reached 1,026 feet off the coast of Thailand in 2003.

Gomes could not be reached for comment.

Deep water scuba diving is a dangerous sport practiced by a small group of technical divers. Only seven divers have ever been below 820 feet—fewer than have walked on the moon.

Breathing a special mix of oxygen, nitrogen, and helium known as trimix, divers endure crushing pressure and marathon decompression periods to prevent the buildup of dangerous gases in the body.

“Record scuba diving is like mountain climbing or speed racing. These are people who want to go to the limits,” Watts said. “The deeper you go, if an accident occurs, you just can’t run back up.”

Rising to the surface too fast causes bubbles to form in the bloodstream, leading to a potentially fatal condition known as decompression sickness, or “the bends.”

It took Gomes just 20 minutes to reach his ultimate depth, but the slow rise to the surface took 12 hours because of the decompression stops he had to make.

It was his second attempt at reclaiming the record, which he’d previously held from 1996 to 2001. According to *The Mercury*, a South African newspaper, last July Gomes reached 889 feet but had to abort the descent due to equipment failure.

Gomes also holds the record for the deepest cave dive, reaching the bottom of South Africa’s 927-foot Boesmansgat Cave in 1996, also known as Bushman’s Hole. Gomes nearly failed to return to the surface after getting stuck in the silt at the bottom.

http://outside.away.com/outside/news/20050613_1.html

Man Pokes Shark in Eye, Survives Head Bite AP

SYDNEY, Australia (Jan. 23) - A diver escaped a 10-foot shark's attack by poking the animal in its eye after it had already chomped on his head once and was preparing for another bite, witnesses and officials said Tuesday.

Eric Nerhus, 41, was flown to a hospital with serious injuries to his head, body and left arm after the attack Tuesday off Cape Howe, about 250 miles south of Sydney.

The shark grabbed Nerhus by the head, crushing his face mask and breaking his nose, said Dennis Luobikis, a fellow diver who witnessed the attack.

"He was actually bitten by the head down - the shark swallowed his head," Luobikis said.

The shark, believed to be a great white, came back for a second bite, clenching its jaws around Nerhus' torso and leaving deep lacerations in his side, said Luobikis.

Nerhus wrestled free of the shark's jaws, and later told rescue workers he had poked the shark in the eye, an unidentified worker from the Snowy Hydro Rescue Helicopter service told local media.

Nerhus was pulled from the water by his 25-year-old son and rushed to a hospital, suffering blood loss and shock.

"Eric is a tough boy. He's super fit," said Luobikis. "But I would say that would test anyone's resolve, being a fish lunch."

Shark attacks are relatively common in Australian waters, home to some of the world's deadliest sea life. Scientists say there are an average of 15 shark attacks a year in Australia - one of the highest rates in the world - and just over 1 per year are fatal.



The Rockland Aquanauts are going to have their annual Dinner on April 15th 2007. The Dinner shall be held at Arthur's Tavern at 214 Kinderkamack Road Emerson New Jersey 07630. The phone number is 1-201-265-5180.

Appetizers shall be from 4:00 pm until 5:00 pm and Dinner shall be from 5:00 pm until 8:00 pm.

There shall be door prizes as well as awards. Don't forget to get your log books over to Allan Block for bottom time rewards. The date for this has been extended until the last week in March. Contact him for more details at allanblock@yahoo.com .

The cost of the Dinner and appetizers shall be for 17.00 for Members and 27.00 for the first Guest.

Please send your checks to the treasure as follows;

The Rockland Aquanauts
c/o Paul Galeazzi Jr.
4 Greensward Drive
Valley Cottage N.Y.
10989

Deadliest Sea Creatures

Great Barracuda



Wilfredo Lee, AP

A great barracuda swims on Banana Reef near Key Largo, Fla. This barracuda species has been known to attack people, especially those who wear shiny, reflective objects. Barracuda attacks are rare, however, as are fatalities. These fish do have two sets of razor-sharp teeth and can swim up to 36 mph.

2006 Deadliest Year On Record For Manatees

The year 2006 is on record as being the deadliest one ever documented for manatees. In January, biologists with the Florida Fish and Wildlife Conservation Commission (FWC) released manatee mortality data that showed 416 manatees died in state waters last year. In 1996, a red tide bloom contributed to 415 manatee deaths.

Although red tide played a factor last year, the leading identified cause of manatee deaths in 2006 was watercraft related. Approximately 86 manatees were killed by boat collisions -- making it the second highest year on record and an increase from the 79 watercraft deaths reported in 2005. Over the last 10 years, at least 763 manatees are known to have been killed by boats, and 3,113 manatees have died from all causes.

Ironically, in June the FWC voted to downlist manatees from endangered to threatened status on the state level. Manatees remain listed as endangered on the federal level and meet the international criteria for endangered species as well.

“By voting to change the manatee’s status from endangered to threatened, the state of Florida is saying that manatees are doing better,” says Patrick Rose, Executive Director for Save the Manatee Club. “That’s not the case at all, and the 2006 statistics prove that. Human-related threats such as watercraft strikes, loss of warm-water habitat, and destruction of habitat associated with development and climate change are only escalating for manatees.”

In addition to the watercraft-related deaths, five manatees were also killed last year when they were crushed or drowned in flood gate or canal lock structures, and four more mortalities were the result of other human activities such as ingestion of or entanglement in monofilament line, fishing nets, fishing hooks, or litter. A total of 70 deaths were categorized as “perinatal,” which are dependent calves less than five feet long that died of natural causes.

FWC biologists have found that the manatee population could be reduced by as much as 50% in the future, which puts them at a very high risk of extinction. However, according to new imperiled species listing criteria recently developed by the state, if manatees aren't in danger of losing at least 80% of their numbers, they don't qualify for endangered status in Florida.

The FWC recently released a draft manatee management plan and requested public comment through January 11th – the final step in the downlisting process. But the draft plan actually allows a 30% **decline** in the manatee population over three generations. The plan will be put on the agenda for final approval at the FWC’s April or June 2007 meeting.

“The near-record watercraft related deaths and record total in 2006 only reinforce the overall trend that we have been seeing in recent years,” says Rose. “We are very concerned that if the FWC proceeds to downlist manatees under the draft plan, there will be a rollback in manatee protection, when an increase in protection is what is actually needed.”

Have a Heart: Adopt-A-Manatee for

Choose a Manatee: Now comes the fun part. Select a manatee from the adoption program to match your personality or the personality of someone you love. See photos and a list of the manatees available for adoption at our [Manatee Adoptees](#) page.

Three Ways to Join:

Web: [Adopt-A-Manatee Online](#)

- **Phone:** Call toll-free within the U.S. 1-800-432-JOIN (5646) or call 407-539-0990 outside the U.S.

Mail or Fax: Print an [order form](#)

<http://www.savethemanatee.org>





**Rockland Aquanauts
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New City, NY
10956**

March 2007

Tire Reef, Diving Depth Record, Annual Dinner, Membership Dues, Dead Manatees

Happy St Patrick's Day

And see you at the annual dinner on April 15th!
