GRAY'S REEF NATIONAL MARINE SANCTUARY

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An Educators Guide to Gray's Reef National Marine Sanctuary, marine science news, reviews, opportunities and inspiration from the South Atlantic Bight.

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Right Whales and White Sharks Return to Southeast

With as few as 300 to 400 left in the world, the growth of the North Atlantic right whales population is of great interest and concern to conservationists and scientists alike.

Like other "snow birds", they begin their migration from Canada and New England south to the coast of SC, GA and FL, or the South Atlantic Bight (SAB), November of each year and return north in April. These are the only known calving grounds for these gentle giants, here in the SAB.

The adult female, weighing in between 30 and 80 tons and measuring 45 to 50 feet in length, will give birth to one offspring every three to five years once reaching maturity at 10 years of age. The whales are slow swimmers and are prone to ship strikes as they cruise the shallow surface waters with their calves, who have limited diving abilities and may likely approach vessels out of curiosity.

It seems that boats may not be the only obstacle these young whales will face. Researchers with the organization know as OCEARCH are tracking another migratory species that keeps showing up on the SAB as well.

White sharks, specifically two named Genie and Mary Lee, are being tracked by satellite to learn more about their migratory patterns which seem to correspond in part with the right whales as they leave their feeding grounds near Cape Cod and head south to birth. Gray's Reef has also detected acoustically-tagged white sharks, and other fishes in the sanctuary, that have been tagged elsewhere in the US. Follow along these sites to see where they go next:

Photo credit: NOAA NMFS SERO

North Atlantic right whale mother and calf pair

OCEARCH Global Shark Tracker

Southeast US Right Whale Sightings

Discovery of a Pleistocene mysticete whale by GRNMS Researchers

The mandible of a mysticete whale, likely the now-extinct Atlantic gray whale, was discovered in 2006 by Gray's Reef National Marine Sanctuary researchers and recovered in 2008.

ACM or Accelerator mass spectrometer radiocarbon dating of the nearly complete dentary (part of the lower jaw bone or mandible) suggests an age range of 34,000 to 37,000 years and it was found in a deposit of shell coquina.

As sea level was believed to be much lower during the Pleistocene glacial period, it is suggested that the remains of the gray whale washed ashore on what was then a beach but is now located some 19 miles offshore of St. Catherine's Island, GA.

Cast replications of the mandible fragment will be on display at the National Museum of Natural History Smithsonian, the Georgia Aquarium and the University of Georgia.

For the complete article, visit Palaeontologia Electronica, and additional coverage can be found here: Savannah Morning News.

Competitions and Contests

The Historic Savannah riverfront hosts festival March 20-23, 2013

Beneath The Waves Film Festival

The Beneath the Waves Film Festival aims to encourage, inspire, and educate scientists, advocates, and the general public to produce and promote open-access, engaging marine-issue documentaries.

Join the growing family of filmmakers, divers, conservationists, and scientists that are now affiliated with Beneath the Waves! The flagship event for 2013 will take place from March 20-23, here in Savannah, Georgia, in conjunction with the Benthic Ecology Meeting. This year's meeting is hosted by Georgia Southern University and will take place at the Hyatt Regency on the historic Savannah riverfront.

The Benthic Ecology Meeting (BEM) is one of the largest scientific meetings for marine biologists in the USA; a mix of the nation's top marine ecologists and up-and-coming graduate and undergraduate students. For more details and information on submitted a film, please visit: Beneath The Waves.

San Francisco Ocean Film Festival Student Competition

"Students will have their voices heard through filmmaking! Creativity and ingenuity is highly encouraged."

The 10th annual San Francisco International Ocean Film Festival, sponsored by Cordell Bank and Gulf of the Farallones National Marine Sanctuaries, is seeking middle and high school grade film productions for the 2nd annual Student Film Competition that educates and/or inspires others about the ocean.

The student film competition is designed to give students the opportunity to showcase their creativity and knowledge of the ocean through their filmmaking skills to a jury of professional filmmakers, ocean conservationists, and educators.

Winners at the 1st, 2nd and 3rd place will receive a prize and experience their films on the big screen during a special screening at the 10th annual San Francisco International Film Festival!

Additional details on this call for entry can be found here.

For the complete festival program, visit their website at Ocean Film Fest.org.

NOSB Living on the Ocean Planet Video Contest

Sponsored in partnership with NMEA and the Ocean Today Kiosk

Any students currently enrolled in high school are eligible to submit a 1 to 3 minute video on this year's National Ocean Sciences Bowl contest theme "A Window into Freshwater Science." This theme invokes the interconnectedness of freshwater and marine systems and includes our understanding of freshwater processes and the connection to the ocean, human impacts on freshwater ecosystems and the effects of invasive species.

Prizes will be awarded to the top submissions at both the regional and national level. Each member of the 1st national place video team will receive a Kodak Playsport to encourage future multi-media endeavors! The 1st place team's video will also premiere on the Ocean Today Kiosk!

For more information, visit National Ocean Sciences Bowl.

Internships and Scholarships

The *Nautilus* Exploration Program

Science & Engineering Internships will be made available in 2013 for undergraduate and graduate students studying oceanography; marine science; maritime archaeology; mechanical, or electrical engineering; video engineering; filmmaking; or related fields.

Intern positions entail 2-5 week periods working aboard E/V Nautilus with the Corps of Exploration as Data Loggers, ROV Pilots, or Video Engineers; and participating in educational outreach activities.

The Nautilus Exploration Program was founded in 2008 by Dr. Robert Ballard and is conducted by the Ocean Exploration Trust. The international program centers on scientific exploration of the seafloor launched from aboard the Exploration Vessel (E/V) *Nautilus*, a 64-meter research vessel.

Deadline for applications is February 1st.

Additional information on this internship can be found at: Ocean Exploration Trust.org.

E/V *Nautilus*

MBARI Summer Internship Program

The Monterey Bay Aquarium Research Institute's summer internship program provides an opportunity for talented college students (undergraduate and graduate) and educators to come to MBARI for a period of 10 weeks (June 10–August 16) to work on a specific project under MBARI staff supervision. With state-of-the-art facilities and equipment that includes research vessels, remotely operated vehicles (ROVs), and autonomous underwater vehicles (AUVs) to explore the deep ocean, MBARI's Summer Internship Program offers teachers and students unique opportunities to be involved in advanced research and development projects.

Application information can be found at: MBARI.org

See what former MBARI interns have to say about the program here: MBARI Interns 2010

Beneath The Sea– Marine Career Scholarships

BTS is a not-for-profit corporation dedicated to increasing awareness of the earth's oceans, the sport of scuba diving, and educates children on the wonder and delicate nature of our oceans.

The BTS Sea of Tomorrow Scholarship Society offers financial assistance in several categories and awards, such as: "Deep Ventures" - A Collaborative Scholarship In Underwater Robotics $2500

The Art of Underwater Photography Scholarship -- Value $1,000

Jordan Viders Spirit of the Sea Award and Scholarship $1,000

More details and scholarships available at Beneath The Sea.org.

The application deadline for scholarships is January 15, 2013

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Gray's Reef National Marine Sanctuary is one of the largest near-shore live-bottom reefs of the southeastern United States. It's just one of the 14 national marine protected areas that make up the National Marine Sanctuary System and is governed by the National Marine Sanctuaries Act. It is managed by the National Oceanic and Atmospheric Administration (NOAA).

Gray's Reef was designated as a sanctuary on January 16, 1981, and is the only protected natural reef area on the continental shelf off the Georgia coast. The 22 square miles of Gray's Reef protects an area that is recognized nationally and internationally.

http://graysreef.noaa.gov/

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National Marine Sanctuaries…..America's underwater treasures!