



Turtle Tracks

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First Beach SCUBA Class Completes Certification

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The Academy of Marine and Environmental Science (AMES) has certified its first class of divers. Students completed their formal classroom training and successfully passed their written test. The group completed their first set of dives this past month in the Florida Keys along with the club sponsors and dive trainers. All were excited by their first experience which included the arrival of several large fish and a very accommodating nurse shark which seemed to enjoy being



petted. Scholarships for student certification were furnished by the Shepard Broad Foundation. Three female student divers were awarded scholarships by the Navy JROTC. Plans are already underway for next year's group,

which will use their new skills to film underwater lessons for use in the WOW program and plan activities for local reef restoration. Information about SCUBA Club membership is available from any AMES teacher.

AMES Partners

- Shepard Broad Foundation
- World Ocean Watch (WOW) and Celebration of the Sea
- ECOMB
- Tarpon Lagoon
- Divers Direct
- UNH Forest Watch
- Miami-Dade Parks and Recreation

AMES Classes Prove Popular

Over 150 students have registered for marine science classes next year with another 100 enrolled in the environmental sciences. All incoming 10th graders in the academy will receive a welcome packet that outlines their course of study, field trips, and other opportunities, and includes their marine coloring book.



AMES Summer Opportunities



The Big Sweep Sunday, June 14th

Students have the opportunity to compete for trophies and receive community service hours and a t-shirt for participation in ECOMB's annual "Big Sweep" beach clean-up day. This annual event places hundreds of volunteers on South Beach. Teams begin at 14th street and Government Cut and meet in the middle to pile up all their trash for media

pictures. Sign up with Mr. Guthrie or Mr. Rehage. Let's win a trophy this year for the Beach High team!

Media and Film Students

Academy members with camera and film experience are needed to work with the turtle program and other events. Video and photography can be used for academy promotion, television, video lessons and your own student projects. See Mr. Guthrie for details.

Turtle Watch Program

There are numerous opportunities to work with Bill Ahern from Parks and Recreation to locate, identify, and monitor sea turtle nesting on the beach. You can sign up for a regular schedule or select a few days you can call in and help out. Some students can be selected to monitor a specific section of the beach and report on new turtle activity. Sign up with Mr. Guthrie or Mr. Rehage.



Students promote cleaner beaches for south Florida

Visit the academy website for news, information, activities, photos, videos, and upcoming meetings and AMES events.



Field Trips Involved Hundreds This Year

Hundreds of science students had opportunities to participate in a variety of field trips this year, many of which were sponsored by or paid for with academy funds. There were multiple trips to Biscayne Nature Center and the Florida Everglades, giving Beach students the opportunity to observe the unique ecosystems of

south Florida first hand. Field trips will be a regular part of the academy curriculum involving students in data collection and analysis for both the Forest Watch Program and World Ocean Watch. Students will be instructed in the use of NASA satellite technology and spectral imaging for monitoring ozone damage and aspects

of climate change. Additional activities around campus will include water testing of local canals and the establishment of a shade house and native plant restoration plot near the back field area. Plans include instruction in composting and organic gardening, and other environmentally responsible techniques.

Female SCUBA Students Receive Scholarships

Miami Beach High School students and U.S. Navy cadets C/PO3 Sasha Dyroff, C/PO3 Adriana Chait and C/SN Andrea Orduz were the lucky recipients of the grants. "We are proud of our cadets for receiving the 2009 Women Divers Hall of Fame and Women's SCUBA Association

Training Grant," said U.S. Naval Science Instructor Ronald Hunter. "The cadets who wanted to compete for the grants had to write biographies and essays in addition to submitting reference letters in order to be chosen."



AMES Partners Plan for Exciting Future

AMES lead teacher David Guthrie has been working with a variety of community partners to develop and fund activities for Beach High AMES students. Several planning sessions have united a dedicated group of supporters to make the vision a reality.

Patxi Pastor (Celebration of the Sea Foundation), has been most instrumental in developing project WOW, World Ocean Watch, which will be a major part of the academy program at Beach. Based on the very successful Forest Watch Program, developed by Dr. Barry Rock of the University of New Hampshire, WOW will involve students in hands-on activities and field trips related to the ocean's ecosystems. This summer, Guthrie, and Marine Science teacher Paul Rehage, will work with teachers from MAST Academy and Florida International University marine biologist Mike Heithaus to develop several lesson modules that will be used by the two schools in pilot programs next year. The modules will incorporate sev-

eral video lessons Heithaus has already filmed in Shark Bay, Australia. Additional modules will be developed on South Florida ecosystems, including sea turtles, sharks, dolphins, and the Everglades. Beach students and SCUBA Club members will be used in the production of some of the future videos.

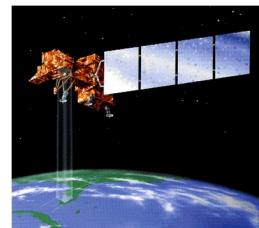
Bill Ahern, of Miami-Dade Parks and Recreation has been working with AMES students this past year. The academy will design and manage a data base for monitoring sea turtle nest sites and other important turtle information. Turtle research will be available for AMES students during the summer months, the most active times for nesting.

SCUBA Club will be actively involved in dive trips that will collect data, film, and plan for possible reef restoration projects. Neil Hammerschlag of UM's Rosenstiel School will use AMES students in his current South Florida Student Shark Program, where students participate in shark tagging.

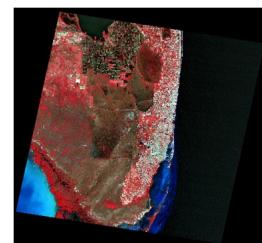
Another major part of WOW will be the use of NASA Land-Sat images to monitor both vegetation and water conditions in south Florida. Dr.

Rock has perfected the use of spectral analysis of satellite images to monitor a variety of conditions in Forest Watch. The new WOW lessons will use the NASA data to monitor such features as mangrove loss, beach erosion, sea grass changes, and algal blooms. Student generated data will be incorporated into major papers presented to the scientific community.

The team is also applying for several grants from a variety of sources including NASA, the National Science Foundation, and the Department of Education. School district personnel, along with representatives from the City of Miami Beach, UNH, FIU, and many other organizations have been supporting the effort. The goal is to provide the funding necessary to expand the program over the next few years, as well as provide teacher support and training.



WOW uses NASA satellite images



AMES students will have a variety of research and internship opportunities with our many partners.



Miriam Kolker



AMES Awards First Senior Scholarship

Senior Miriam Kolker was awarded the first college scholarship given by the academy at an awards ceremony held on May 26th in the school auditorium. The \$1000 award was provided by the Shepard Broad Foundation, which has given financial support to a variety of AMES projects, field trips, and

supplies. Miriam has been a major part of AMES since its inception, taking Marine Science and AP Environmental Science classes. She also served as the first president of both the academy and the SCUBA Club, working tirelessly for both programs. She has volunteered for many environmental

projects and internships, and will attend Whitman College in the fall. AMES will award the scholarship every year to an outstanding senior of the academy who best represents the ideals of good scholarship, school and community service, and stewardship of the Earth.

Miami Beach Senior High School

Academy of Marine and Environmental Science (AMES)

2231 Prairie Avenue

Miami Beach, FL 33139

Phone: 305-532-4515

E-mail: dguthrie@dadeschools.net

David Guthrie, Lead Teacher

Visit our new website at:

miamibeachhigh.dadeschools.net

You will find us in the Academies Section

AMES Mission: The Academy of Marine and Environmental Science seeks to enrich our students with scientific knowledge for the ever-changing world; to promote environmental literacy and activism in order to become productive citizens of the South Florida community and the world beyond.

AMES vision: To accomplish our mission in cooperation with our local and national partners by establishing small learning communities dedicated to promoting interest and careers in Marine and Environmental Science

Environmental wisdom for tomorrow's world....today!



AMES Merchandise / Uniforms From Cafepress.com



A variety of merchandise is now available over the internet from cafepress.com. The website has links from the AMES pages on the school website or can be accessed directly at: www.cafepress.com/AMES_Academy.



All proceeds from the sale of merchandise goes to support academy programs and supplies.

