

Fall 2008

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NSU Oceanographic Center

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# Currents



Fall 2008 • Volume XXIII, Number 4

## Who's Your Daddy?

A Guy Harvey Research Institute scientist's discovery that female sharks can reproduce without sex garnered worldwide attention for NSU research. **Mahmood Shivji**, Ph.D., professor at the Oceanographic Center (OC), and his colleagues within the Joint Science Program of Farquhar College of Arts and Sciences (FCAS) and the OC, have confirmed that female sharks can produce young without having their eggs fertilized by sperm. Known as parthenogenesis (Greek for "virgin birth"), this phenomenon had previously been documented to only occur sporadically in a few other vertebrates, such as some reptiles, birds, and bony fishes. Until recently, parthenogenesis was not known to occur in elasmobranchs (sharks and rays). Shivji and his team have now documented parthenogenesis in two different shark species!

In May 2007, Shivji and his Ph.D. student, **Demian Chapman**, led the team that made the groundbreaking scientific discovery confirming the first-ever case of virgin birth in a female shark. That shark was a hammerhead that had been kept at a zoo without contact with male sharks for at least three years. The study, published in the journal *Biology Letters*, captured worldwide scientific attention and was reported in more than 600 media venues including *Time* magazine, the *New York Times*, the *Washington Post*, National Public Radio, CNN, BBC, Australian Broadcasting Corporation, Canadian Broadcasting Corporation, and *National Geographic*.



Hammerhead  
(Photo courtesy of Bill Watts)



Blacktip shark (Photo courtesy of MDP Photography)

Chapman (now an assistant professor at Stony Brook University, New York), Shivji, and a colleague at the Virginia Aquarium have just confirmed a second case of parthenogenesis in sharks. This case occurred in a blacktip shark that had been kept in captivity in the absence of males for eight years. Their study, published in the October 2008 issue of the *Journal of Fish Biology*, has received worldwide attention, appearing in more than 500 media venues including *Newsweek*, CNN, the *Washington Post*, *USA Today*, ABC News, and MSNBC.

The DNA-fingerprinting techniques used to prove both cases of virgin birth are similar to those used in human paternity testing. These discoveries rewrite the textbooks on how sharks can reproduce and provide a much broader perspective on the prevalence of parthenogenesis in nature.

Shivji routinely incorporates his cutting-edge research into his FCAS undergraduate classes, in which he teaches genetics to biology students, and in his research program with OC graduate and FCAS undergraduate students. 🦈

## GRANTS AND AWARDS

### Grant Awarded to Study Sponges and Their Relationship in the “Tree of Life.”

**Jose V. Lopez**, Ph.D., associate professor at the Farquhar College of Arts and Sciences and molecular microbiologist at the Oceanographic Center, has received \$445,000 from the National Science Foundation to help assemble the Tree of Life by placing sponges, the most ancient animal group, in their proper place on the planet. As part of a five-year, \$2.9 million grant called “Assembling the Tree of Life: The Poriferan Tree of Life Project”



*Eulosa*

(PorToL for short), Lopez will share funding with six other investigators who will use DNA sequencing to achieve their goals. The DNA will serve as genetic fossils to help infer the evolutionary history of the sponges found in marine habitats such as coral reefs and deep-sea benthos.

Given their ancient origin, sponges constitute a major trunk on the animal tree of life and their proper representation in the ATOL program is imperative. “Sponges have been in existence for more than 500 million years, so tracking down their evolutionary history won’t be easy, but will be worthwhile,” Lopez said. Data from this project will decipher the relationship of sponges to other groups of animals, resolve the pattern of sponge “branches,” and provide genetic information for identification of sponge species. This project will (1) assist communication and collaboration within the international sponge research community by developing the PorToL database, integrating individual datasets on an Internet-based workspace; (2) provide



*Jose V. Lopez, Ph.D.*

numerous outreach and educational opportunities, including undergraduate and graduate student training, field courses, professional workshops, and conference symposia; and (3) benefit society as a whole by tracking the origin and distribution of crucial genes (and chemical compounds) that are useful in medicine and industry and by establishing new model systems for the study of early animal evolution. 🐡

## Other Awards

**Richard Dodge**, Ph.D., NSU-OC dean and National Coral Reef Institute (NCRI) executive director, received an award from the United States Coral Reef Task Force (USCRTF) at its biannual meeting in Kona, Hawaii, held August 22–30. Celebrating its first 10 years, the USCRTF recognized Dodge’s participation and contributions in all but one of the 20 meetings of the task force, and his leadership of the 11th International Coral Reef Symposium, which he spearheaded in Fort Lauderdale in July 2008. As part of the “USCRTF Member and Partner Initiative Updates,” Dodge presented “International Coral Reef Symposium: Science to Management” on August 29 to the USCRTF.

Dodge, along with **Bernhard Riegl**, Ph.D., NCRI associate director, and **Wendy Wood**, NCRI administrative coordinator, also participated in the August 22 “Managers’ Workshop with Scientists: Increasing Science in the Management of Coral Reef Ecosystems.” Dodge presented on NCRI’s research partnerships with local coral reef management bodies, including the Florida Department of Environmental Protection, Broward County, and Port Everglades, at the workshop.

The USCRTF was established in 1998 by Presidential Executive Order to lead U.S. efforts to preserve and protect coral reef ecosystems. The USCRTF includes leaders of 12 federal agencies; 7 U.S. states, territories, or commonwealths; and 3 freely associated states. The USCRTF helps build partnerships, strategies, and support for on-the-ground action to conserve coral reefs.

The National Coral Reef Institute (NCRI) was recently awarded a grant from NOAA to perform an independent accuracy assessment of their most recent Florida Keys benthic habitat maps. **Brian Walker**, Ph.D., and research assistant **Greg Foster** will be traveling to the Florida Keys to visit around 500 locations spanning approximately 25 habitat types in the lower Keys, taking video and GPS data at each site. The data will then be analyzed in GIS via a



*Bernhard Riegl, Ph.D., NSU NCRI associate director (far left); Richard Dodge, Ph.D., NSU OC dean and NCRI executive director (far right); Felix Camacho, governor of Guam (middle left); and Sebastian Anefal, governor of the state of Yap (middle right)*

*(Continued on page 3)*



Accepting his award from the USCRTF, Richard Dodge, Ph.D., (center); with USCRTF co-chairs Lyle Laverty, assistant secretary of the Department of the Interior (left); and Tim Keeney, deputy assistant secretary of the National Oceanic and Atmospheric Administration (NOAA) (right)

confusion-matrix approach to estimate the accuracy of the NOAA benthic habitat maps.

Walker was recently awarded a grant from the Florida Department of Environmental Protection (DEP) to assess the ship anchorages in Miami-Dade and Palm Beach counties. This project will engage local stakeholders to work toward a solution that will minimize future ship anchor impacts to Southeast Florida coral reef habitats. Primary focus will be on the Port of Miami anchorage, where preliminary GIS analyses show about 25 percent of the designated ship anchorage is coral reef habitat.

Walker also has been awarded a State Wildlife Grant by the Florida Fish and Wildlife Conservation Commission to map the benthic habitats of Martin County. Lidar bathymetry will be acquired and used as the basis for benthic habitat mapping. This project will extend the current Southeast Florida mapping efforts to north of Stuart, Florida, the end of the known coral reef hard bottom extent. It will also reveal the amount of offshore hard bottom resources in Martin County, of which very little is known. 🐠

## People on the Move

National Coral Reef Institute (NCRI) researcher **Sam Purkis**, Ph.D., recently returned from the Saudi Arabian city of Jeddah, where he was hosted by the government agency for environmental affairs (PME). Purkis was participating in a fact-finding mission in collaboration with the International Union for Conservation of Nature (IUCN) to initiate a regional-scale project of coral reef assessment. The kingdom of Saudi Arabia borders both the Arabian Gulf and the Red Sea, both of which harbor rich coral habitats. Of particular interest is that large swaths of the Saudi Red Sea coastline are undeveloped, particularly away from the central towns of Jeddah and Yanbu. There exists an urgent need to survey these remote areas to provide a baseline against which future changes can

be gauged. This is important, considering how rapidly neighboring countries have been developing their coastal zones. The work would extend NCRI's experience in the region, which already includes ongoing projects in the southeastern Gulf and Red Sea, the latter as part of a four-year collaboration with the Khalid bin Sultan Living Oceans Foundation.

During his visit, Purkis had the opportunity to meet and explain NCRI's work to H.R.H. Prince Turki bin Nasser bin Abdulaziz, the General President of Meteorology and Environment Protection. Follow up trips to the kingdom are planned in 2009 as the project matures.

On November 6, **Brian Walker**, Ph.D., presented the latest draft of benthic habitat maps of Miami-Dade County at the Florida DEP Coral Reef Conservation Program Southeast Florida Coral Reef Initiative Land-Based Source's of Pollution and Water Quality meeting. These maps are the latest addition to the National Coral Reef Institute's Southeast Florida mapping efforts and constitute about one third of the mapped area to-date in Southeast Florida. The maps are expected to be complete in early 2009.

**Edward O. Keith**, Ph.D., was in Houston, Texas, October 28–30, attending a program review for the Sound and Marine Life Joint Industry Programme. This program is supported by the International Organization of Gas and Oil Producers and

provides funding to projects investigating the effects of sound on marine life. Keith received a grant from this program in March 2008 to conduct a "Critical Review of the Literature on Marine Mammal Population Modeling." He presented his results at the meeting.

From July 25 through August 3, Keith was in Ecuador. He initially traveled to the Cuyabeno Wildlife Reserve in Northeastern Ecuador, where he spent three days searching for Amazonian manatees (*Trichechus inunguis*) in the Cuyabeno River, a remote tributary of the Amazon River. He surveyed four lagoons—Laguna Canangueno, Laguna Mateo Cocha, Laguna Macurococha, and Laguna Cocodrilococho—on multiple occasions, including early mornings and late evenings. He was testing the ability of a side-scan sonar unit to detect manatees. This work was supported by an NSU President's Faculty Research and Development Grant that Keith received in 2007. Although he did not see or detect any manatees, he took hundreds of photographs of the Amazonian flora and fauna. Then he traveled to the town of Baños, where he attended the Second International Biodiversity Conference and presented an invited paper entitled "Preserving Sirenian Biodiversity in Mesoamerica." His attendance at the conference was supported in part by NSU's Farquhar College of Arts and Sciences. While he was in Baños, he was able to get some impressive photographs of the eruption of the local volcano, Tungurahua. 🐠



(L–R:) Prince Turki bin Nasser bin Abdulaziz and Sam Purkis

## OTHER NEWS

### Broward Commissioners Get a Tour

On September 17, the National Coral Reef Institute (NCRI) hosted a field excursion for Broward County Commissioners, Kristin Jacobs and Sue Gunzburger, as well as staff members and aides from the commissioners' offices and the mayor's office. The trip was in conjunction with the Florida Department of Environmental Protection's Southeast Florida Coral Reef Initiative (SEFCRI) and the Broward County Department of Planning and Environmental Protection. The coral reefs of Broward County alone account for a direct annual use value of more than \$2 billion. The reef viewing and education trip featured a glass-bottom boat, allowing the commissioners and staffers to see and learn more about the corals that are just a few miles off the beaches of Fort Lauderdale.

A tour highlight was a visit to a reef of staghorn coral (*Acropora cervicornis*), which is one of the largest and healthiest thickets of this type of coral in Florida. In May of 2006, staghorn, along with elkhorn (*Acropora palmata*), was listed as a federally threatened species by the U.S. Endangered Species Act. NCRI researcher and assistant professor **Dave Gilliam**, Ph.D., gave a presentation on his work on South Florida reefs, including coral reef monitoring and restoration. **Richard Dodge**, Ph.D., NCRI executive director and NSUOC dean, and **Wendy Wood**, NCRI administrative coordinator, also joined in the discussion with the group on the value of Broward's reefs and the work of NCRI.

After the boat trip, the group continued with a tour of the NCRI labs, including the coral nurseries and outdoor husbandry system. The event was documented by reporter Jeff Burnside, who also joined the excursion. It aired on NBC6 the evening of the trip, bringing the focus on coral reefs to the broader South Florida community.



*Dave Gilliam (far right) speaking to the commissioners and staffers*



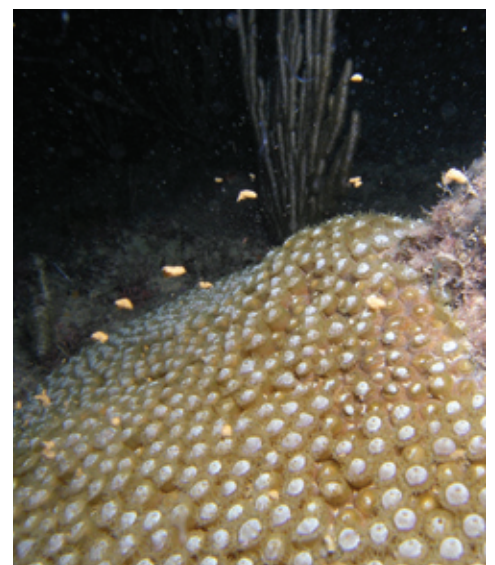
*(L-R:) Richard Dodge, Wendy Wood, and Dave Gilliam aboard the glass-bottom boat*

## That Time of Year for Corals

A few days after the full moon of August, corals off the coast of heavily populated Broward County, Florida, began their annual spawning period, releasing sperm and eggs, also known as gametes, into the water column. The Center for Sponsored Coastal Ocean Research supported scientists from Nova Southeastern University's **National Coral Reef Institute (NCRI)**, working with scientists and managers of Florida's Department of Environmental Protection who were also there to catch the action. NCRI personnel included **Abby Renegar**, **Adam St. Gelais**, **Allison Brownlee**, and **Vladimir Kosmynin**. During several night dives, divers collected gametes as they were being released from colonies of the great star coral (*Montastraea cavernosa*). This species is one of the most important

reef-building Caribbean and Atlantic coral species, particularly in Florida.

Departing at dusk on August 23 from NSUOC, the scientists anchored at preselected sites and entered the water around 6:00 pm. A couple of weeks before the predicted spawning date, tissue samples were taken from several large, tagged colonies to determine which colonies were male and which were female. These colonies were then targeted for gamete collection. Large mesh nets topped with plastic collection cups were tented over the female colonies to catch the buoyant eggs as they floated to the surface after being released. Collection of sperm is a bit trickier, since sperm quickly disperse in the water upon release instead of floating to the surface like the positively buoyant eggs. Thus, divers equipped with



*Corals spawning*

*(Continued on page 5)*

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Coral eggs in a gamete collector

plastic bags were stationed near the male colonies, poised to scoop up as much as they could as clouds of sperm were released from the male colonies. “Imagine stumbling around in the dark with a small flashlight trying to collect fruit flies in a resealable bag while the entire room is swaying back and forth. That’s the closest I could come to describing what collecting coral gametes by hand is like,” commented St. Gelais. “When it all comes together though, it is a very special thing for a coral researcher to witness.”

The divers’ long hours of waiting were rewarded when the male colonies released their gametes around 9:00 p.m., and the female colonies followed about 20 to 30 minutes later. The collected gametes were brought to the surface and placed in buckets on the dive boat to mix and fertilize. Back at the laboratory, the fertilized eggs were placed in a controlled aquarium environment, where development of the eggs into free-swimming larvae occurred over the next several days. Several colonies of *M. cavernosa* that were being maintained in outdoor tanks at NCRI also spawned for the first time, and gametes were collected and transferred to aquaria inside. Once the larvae matured, they were ready to settle onto natural limestone plates placed in the aquaria. After settlement, the larvae metamorphose into a primary polyp, the building block of the coral animal. Other polyps bud off from the primary polyp as the coral grows into a juvenile colony.

The resulting juvenile corals will be nurtured and grown in the protected laboratory environment until large enough to be moved to the outside coral husbandry system. After they have reached a size large

enough for field transplantation, they will be returned to the reef with the goal of developing techniques and methods for aiding restoration of damaged reefs.

“This outstanding research is consistent with NCRI’s mission of providing management-related research output on assessment, monitoring, and especially restoration of coral reefs” stated **Richard Dodge**. With coral reefs worldwide experiencing degradation and loss of corals due to pollution, overfishing, climate change, and coastal development, tools are sought to help restore the health of the reefs. Practical solutions to restoring and reinvigorating coral reefs are urgently needed, and the transplantation of healthy corals is one option for doing this.

“The use of sexually reproduced, juvenile corals grown in the laboratory has great potential to provide a viable alternative in coral reef restoration” says NCRI research scientist **Alison Moulding**, Ph.D. “This research aims to develop and provide a useful tool in the manager’s toolbox to help address critical issues facing coral reefs in the United States and worldwide.”

## Trust Nominates Faculty Member

NSUOC/NCRI faculty member **Sam Purkis**, Ph.D., has been nominated as trustee and acting chair of the US Chagos Conservations Trust (CCT-US) and a member of the executive committee. The Chagos is a remote and near-pristine coral archipelago in the central Indian Ocean. In 2006, Purkis and **Bernhard Riegl**, Ph.D., visited the island chain as part of a UK-led research expedition. Since the Chagos is British sovereign territory, the outpost receives considerable attention on the other

side of the Atlantic. In the United States, however, the area is not part of the public consciousness, despite the existence of the sizable U.S. military base on the island of Diego Garcia. This base is home to several thousand U.S. service personnel. Purkis has initiated CCT-US to raise awareness about this diverse and untouched ocean wilderness. Establishment of the trust was timed to coincide with the International Year of the Reef and was launched during the recent International Coral Reef Symposium in Fort Lauderdale, where CCT-US had an exhibition booth sponsored by NCRI. Over the coming months, the trust will be registered as a 501(c)3 charity and will act as a focal point to address interest in the conservation of the archipelago from within the United States. To become a member of the CCT, or to simply find out more, please contact Sam Purkis ([purkis@nova.edu](mailto:purkis@nova.edu)). 🐟



Sam Purkis explains the CCT-US to a visitor.

## Publications

Purkis S.J. and K.E. Kohler (2008) The role of topography in promoting fractal patchiness in a carbonate shelf landscape. *Coral Reefs*, 27:977-989.

Walker, B.K.; B. Riegl., and R.E. Dodge, 2008. Mapping coral reef habitats in Southeast Florida using a combined technique approach. *Journal of Coastal Research*, 24(5), 1138–1150.

# MASTERCURRENTS

## INSTITUTE OF MARINE AND COASTAL STUDIES

### Winter Semester

January 5–March 27

### Seminars

**Andy Danylchuck**, Ph.D., (Cape Eleuthera Institute, Bahamas). “Using primary research to enhance education: A novel approach to marine science and sustainable design.” July 31.

**Lou Jost**, Ph.D., (Ecuador). “Misconceptions regarding measures of diversity and differentiation in ecology and population genetics.” October 10.

### Theses

**Melissa Sathé**, “Factors influencing Southeast Florida coral reef community composition.” Committee: David Gilliam, Ph.D.; Bernhard Riegl, Ph.D.; Steven Blair, M.S. (Miami-Dade County DERM); and Louis Fisher, M.S. (Broward County, EPGMD). August 29.

**Ashley Porter**, “Multiple predator effects and native prey behavioral responses to two non-native Everglades chichlids.” Committee: Richard Spieler, Ph.D.; Jennifer Rehage, Ph.D. (FIU); and Shawn Liston, Ph.D. October 16.

[Correction]

**Judy Robinson**, “A comparison of mesobenthic amphipod diversity on 3-dimensional artificial substrates versus natural substrates in a shallow coral reef environment.” Committee: Charles G. Messing, Ph.D.; James Thomas, Ph.D.; and Jerald Ault, Ph.D. (UM, RSMAS). August 15. (This was incorrectly listed as a capstone in the summer issue.)

### Capstones

**Shawn McQuaid**, “A review of sedimentation and the effect of dredging on scleractinian corals.” Committee: Joshua Feingold, Ph.D., and Lou Fisher, M.S. (Broward County, EPGMD). August 29.

M.S. degree specialties are marine biology, coastal zone management, and marine environmental sciences. Each course carries 3 credit hours or may be audited. Tuition is \$745 per credit hour (50 percent less for audit). Classes are 12 weeks in length and meet once a week from 6:30 to 9:30 p.m. at the Oceanographic Center (unless otherwise specified). Registration (\$25 fee) starts December 1 and takes place at [www.webstar.nova.edu](http://www.webstar.nova.edu) or at the Oceanographic Center. For further information, call Richard Spieler or Melissa Dore at (954) 262-3610 or 800-396-2326, or email [imcs@nova.edu](mailto:imcs@nova.edu). More information can be found at the Web site: [www.nova.edu/ocean](http://www.nova.edu/ocean).

**Ben Finkes**, “Life history and population dynamics of a protogynous hermaphroditic grouper (*Epinephelus guttatus*).” Committee: Bernhard Riegl, Ph.D., and Curtis Burney, Ph.D. August 29.

**Eileen Kelly**, “The killer whale (*Orcinus Orca*) vocal radiation: Acoustic communication and its role in the orca family unit.” Committee: Edward O. Keith, Ph.D., and Keith Ronald, Ph.D. September 19.

**Jennifer Scharnitz**, “Analysis of the acoustic signals from three pigmy sperm whales (*Kogia breviseps*).” Committee: Edward

O. Keith, Ph.D.; Keith Ronald, Ph.D.; and Edward Odell, Ph.D. September 29.

**Melissa Champagne**, “Sperm competition in the Florida manatee (*Trichechus manatus latirostris*).” Committee: Edward O. Keith, Ph.D., and Curtis Burney, Ph.D. October 3.

**Nicole Tarr Carter**, “A review of the individual, specific vocal behavior of bottlenose dolphins (*Tursiops truncatus*) and killer whales (*Orcinus orca*): The role of the signature whistle hypothesis.” Committee: Edward O. Keith, Ph.D., and Denis Herzing, Ph.D. (FAU). October 24.

### Ph.D. Degree Offered

The Oceanographic Center offers a doctoral degree program in oceanography/marine biology. The program requires a minimum of 90 credits beyond the baccalaureate. At least 48 credits must consist of dissertation research, and at least 42 credits must consist of upper-level coursework. Required courses include the four M.S. core courses. Other upper-level coursework is usually in the tutorial mode with the major professor. Tuition is \$5,295 per quarter.

### Alumni News

#### Gregory R. Fairclough (1995)

Fairclough’s professional life is all about finding equilibrium. As a fisheries management specialist for the National Marine Fisheries Service (NMFS), based in St. Petersburg, Florida, he tries to strike a delicate regulatory balance that will allow commercial fishermen to earn a living, maintain recreational fishing opportunities, help depleted fish stocks rebuild, and at the same time, protect threatened and endangered species.

It’s not an easy job. To do it, he must stay in close contact with commercial and sport fisherman all along the Atlantic, Caribbean, and Gulf of Mexico coasts; stay on top of scientific research; and work with his colleagues at the National Oceanic and Atmospheric Administration (NOAA), the parent agency of the NMFS. Unlike many of his colleagues, his background includes more than academic research work in marine biology and conservation. He also has extensive experience working as a commercial fisherman.

(Continued from page 6)

As a child, during family vacations to Rockport, Massachusetts, Fairclough was captivated by the local fishing fleet—druggers harvesting groundfish. Later, in high school, and as a college student at Roger Williams University in Bristol, Rhode Island, he worked on groundfish and lobster fishing vessels and watched as groundfish populations in New England waters were depleted.

While pursuing his master's degree at Nova Southeastern University, he worked on longline fishing vessels targeting sharks in the waters off Florida, earning money for tuition and collecting data for his academic research projects. Again, he watched a fishery decline. After graduation—and his marriage the same month to his wife, Rita Margaret—he started work as a researcher at the Florida Marine Research Institute in St. Petersburg, Florida, working to monitor fish populations in Tampa Bay. He also created and taught an oceanography course at Keiser University in Daytona Beach, Florida.

Fairclough started working for the Federal government (NMFS) in 1998 as a fisheries reporting specialist, collecting statistical and biological data from commercial fishing catches on Florida's Gulf Coast. The data was used to track efforts to rebuild fish stocks and prevent overfishing. In 2002, he became a fisheries management specialist, assigned to the Highly Migratory

Species (HMS) Management Division of the NMFS. The HMS team drafts fisheries management plans, highly complex sets of rules designed to rebuild and maintain populations of tunas, sharks, swordfish, and billfish.

Fairclough has received multiple awards for his contributions to HMS management, including two U.S. Department of Commerce Bronze Medals and a National Oceanic and Atmospheric Administration General Council's Award. Among the most satisfying projects he has worked on, he says, are the rules that require the use of innovative fishing gears designed to prevent pelagic longline fishermen from incidentally capturing threatened and endangered sea turtles and to minimize mortalities from any interactions that do occur. One innovative gear, known as a circle hook, is designed to catch in the jaw of a fish, but is less likely to deeply hook a sea turtle, even if the animal ingests it.

Along with specific circle hooks and baits, NMFS also requires a suite of release tools that must be used to remove hooks and lines from sea turtles or other protected species that are incidentally captured. Additionally, fishermen must now complete a mandatory training course on how to safely handle, release, and identify protected resources in order to maintain their swordfish or shark fishing permits. The required use of specific circle hooks



Greg Fairclough and his wife, Rita Margaret, at the U.S. Department of Commerce Bronze Medal Ceremony in Washington, D.C., in 2004

and baits in the HMS pelagic longline fishery has reduced interactions between fishermen and sea turtles by roughly 50 percent. Mortality rates of sea turtles that are incidentally captured are also falling, now that many longline fishermen have been trained to safely remove their gear from sea turtles.

Fairclough currently lives in Tampa, Florida, and enjoys wood carving, fishing, hunting, and many other hobbies. His wife is a physician, finishing her residency in emergency medicine at Shands, the University of Florida's teaching hospital in Gainesville. 🐡



Fairclough, working on the commercial fishing vessel MARSEA, in 1998

## More Alumni News

Following her graduation from the center this summer, **Amber Little** decided to take a bike trek from Oregon to California. The trip encompassed 1,531 miles (2,464 km) over 47 days, from September 1 to October 17, 2008. Joining her was her friend Brook Aretz. The pair also met up with many other bikers who were going south, including a band doing a tour by bike. They pulled all of their instruments behind their bikes in trailers. Despite the cold, they enjoyed camping out most nights in state parks, enjoying the campfires and roasted marshmallows.

You can view Little's blog at [www.crazyguyonabike.com/doc/herculescluborbust](http://www.crazyguyonabike.com/doc/herculescluborbust). 🐡



Amber Little, stopping on a flat stretch before tackling the hills on the first day of the trip in between Portland and Clatskanie, Oregon, on Hwy 30



## Student Government Association News

On September 19, the winners of the inaugural student amateur photography contest at the NSUOC were announced. Thirty-two students submitted 237 photographs sorted into the following five categories: Best Macro, Best Wide Angle, Best Vertebrate, Best Invertebrate, and Best Topside.

The judging panel included faculty and staff members from the OC, as well as guest judges from the underwater photographic community in South Florida. The judges awarded prizes to the top three photographs in each category, while declaring one image Best Overall. **Greg Foster** brought home two first prizes and a second prize. **Matthew Potenski** won the prize for Best Overall with an image of a whale shark feeding at the surface, surrounded by a school of baitfish. 🐟

### Special Thanks to Our Sponsors Who Donated Prizes for the Event

Sea Sport Belize  
The NSUOC Student Government Association  
Nova Southeastern University  
Coastal Marine Diving Supplies  
National Coral Reef Institute  
ProDive  
Amy Slate's Amore Dive Resort  
Scubatyme  
Divers Cove  
Divers Direct

To view all the winners, please visit [www.nova.edu/ocean/shuttershark\\_08.html](http://www.nova.edu/ocean/shuttershark_08.html).

### The Organizing Committee

Rachel Anderson  
Katy Brown  
Paola Espitia-Hecht  
Liz Goergen  
Kirk Kilfoyle  
Danielle Morley

### The Judging Panel

David Gilliam, Ph.D.  
David Kerstetter, Ph.D.  
Edward Keith, Ph.D.  
Jose Lopez, Ph.D.  
Charles Messing, Ph.D.  
Suzan Meldonian  
Phil Rudin



Best Overall by Matthew Potenski



Winners from the contest included (L-R:) Allison Brownlee (3rd place, Topside); Greg Foster (1st place, Macro; 2nd Place, Vertebrate; and 1st place, Invertebrate); and Elizabeth Goergen (3rd place, Vertebrate).

## In Memorium

### Georges Blaha, Ph.D. (1939–2008)

It was sad news for the Oceanographic Center to hear that Georges Blaha, Ph.D., passed away at home on June 9, 2008. Blaha was employed by the center from 1977 to 1989 in the fields of photogrammetry and geodesy, for which he won the prestigious Heiskanen Award. He worked from his home in Melbourne, making periodic forays to the lab. Blaha tried to never miss a Christmas party here either. According to his wife Patty, he made a wonderful life for himself after escaping to Canada from the former Czechoslovakia as a young man with five dollars in his pocket. He spent his childhood in the mountains of Moravia

with his parents Ruzena and Vilem Blaha. Blaha was always ready to play volleyball, both locally and in state and national USA volleyball championships, where he won many gold medals and All-American awards. His passion was nature, and he traveled widely to experience many beautiful areas, especially tropical rain forests. He greatly loved Florida's nature and devoted many years of his life working for its preservation. Georges Blaha left behind his wife; his brothers, Sidney and Jarek; other relatives and in-laws; and many friends here and around the world. 🐟



Georges Blaha

## Fall Term Event

September 26 turned out to be a beautiful day for the annual fall term orientation and barbeque. Following orientation, 16 new students joined faculty and staff members and old students for a barbeque and buffet under a tent set up on the deck. Total registration for the fall term was 23 in-house and 29 distance students. 🐡



Lots of food



The chefs: (L-R) students Kirk Kilfoyle and Mark Rogers



Harbor master Lance Robinson (center) with Sebastian Basile and Christopher Maingot



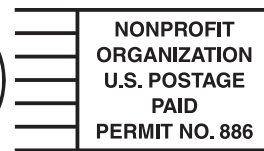
Distance learning assistant Julio Perez chats with a few of the new students.



Peggy Oelrich (staff member) and Richard Spieler (director of academic programs) check out the barbeque.



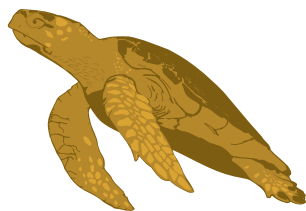
Faculty members Jim Thomas and Jose Lopez enjoy the festivities with Dick Dodge, NSUOC dean.



Jane Dougan (director of distant learning) welcomes new student, Denise Perez.



New students (L-R:) Whitney Sapienza, Amanda Karch, Paige Switzer, and Alexandra Dempsey

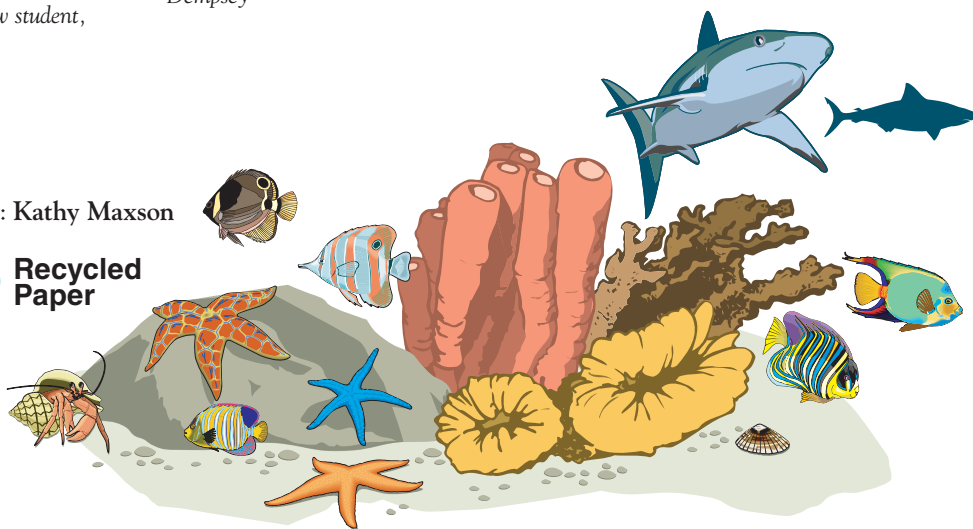


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