

Winter 2010

Winter 2010

NSU Oceanographic Center

Follow this and additional works at: http://nsuworks.nova.edu/occ_currents

 Part of the [Marine Biology Commons](#), [Oceanography Commons](#), and the [Terrestrial and Aquatic Ecology Commons](#)

NSUWorks Citation

NSU Oceanographic Center, "Winter 2010" (2010). *Currents*. Book 6.
http://nsuworks.nova.edu/occ_currents/6

This Article is brought to you for free and open access by the Publications by HCNSO at NSUWorks. It has been accepted for inclusion in Currents by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.

Currents



Winter 2010 • Volume XXV, Number 1

Oceanographic Center Receives Grants to Build State-of-the-Art Coral Reef Research Facility!

Nova Southeastern University (NSU) is the recipient of a \$15-million grant from the U.S. Commerce Department's National Institute of Standards and Technology (NIST) Construction Grant Program. This award was part of a \$123-million American Recovery and Reinvestment Act grant program to support the construction of new scientific research facilities at 11 universities and one nonprofit research organization. NSU was one of only two entities to receive the largest amount awarded at \$15 million. Other grantees included the Woods Hole Oceanographic Center, Columbia University, and other highly respected national research institutions. The new center at NSU will be the only research facility in the nation dedicated to coral reef ecosystem research.

Richard Dodge, Ph.D., dean of NSU's Oceanographic Center (NSUOC) and executive director of the National Coral Reef Institute (NCRI) said this represents recognition of the tremendous value of coral reefs to the nation and also the considerable threats and stressors that are now impinging upon them.

The planned state-of-the-art Center of Excellence for Coral Reef Ecosystem Science (CoECRES) research facility at the NSUOC will provide a multidisciplinary research facility for the center and NCRI. The NCRI is an internationally recognized center for research on the ecology of coral reefs and one of the primary coral reef institutes supported by the National Oceanic and Atmospheric Administration (NOAA).



(L-R): Dean Richard Dodge; Governor Crist; NSU Chancellor Ray Ferrero, Jr.; and NSU VP of Facilities Management John Santulli

Coral reefs not only play major ecological roles in the oceans, promoting biodiversity and a host of other functions (e.g., food, recreation, and coastal protection), but also serve an important economic role. In South Florida alone, figures from a NOAA and Broward County study indicate coral reefs generate more than \$6 billion annually for the region's economy and support more than 71,000 jobs. Unfortunately, coral reefs are severely threatened worldwide from a variety of factors, including pollution, overfishing, and climate change.

The CoE CRES research facility will address pressing research, management, and conservation needs facing coral reefs. The research building will double the current research area at the NSUOC, much of which dates to the 1970s and is severely crowded and outdated. The new, 86,000-square-foot (8,000-square-meter) facility will support five main focus areas for coral reef research: 1) impacts of climate, fish, and pollution on coral reef ecosystems; 2) marine spatial planning, geospatial analysis, and mapping; 3) deep sea coral reefs and biodiversity; 4) molecular biology

(continued on page 2)

Coral Reef Research Facility (continued from page 1)

and conservation genetics as applied to coral reefs; and 5) the impact of ocean and coastal hydrodynamics on coral reefs.

Designed to withstand coastal storm surges and hurricanes, the CoE CRES facility will be a high-performing, environmentally sustainable building that is expected to merit a LEED Silver rating. The project's total anticipated budget is \$30.6 million and is expected to be completed in late fall 2011. The center is expected to create 22 new academic jobs and 300 construction jobs; employ 50 graduate students; and preserve 22 existing academic jobs. NSU is planning to contribute 50 percent of the center's construction cost.



Artist renderings of proposed facility



On Monday, January 11, a press conference was held at the NSUOC and attended by local dignitaries, faculty and staff members, and students. Among them was the South Florida congressional delegation, led by Ron Klein and Debbie Wasserman-Schultz “who worked hard to help secure this funding and we owe them a debt of gratitude” Dodge said. In addition, Senators Bill Nelson and Georg LeMieux worked together to support the application. Citing compelling new evidence of widespread mounting threats to coral reefs in U.S. waters, the delegation united in support of the application, calling it absolutely critical that Congress and the Obama administration continue their bipartisan efforts to invest in coral reef research and institutional infrastructure.

In addition to Wasserman-Schultz and Klein, House signatories to the letter requesting funds for the center included Rep. Hastings, Rep. Ros-Lehtinen, Rep. Meek, Rep. Mario Diaz-Balart, Rep. Lincoln Diaz-Balart, and Rep. Wexler.



(L–R): Ronald G. Assaf, chair of NSU's Board of Trustees; U.S. Rep. Debbie Wasserman-Schultz; U.S. Rep. Ron Klein; Bernhard Riegl, Ph.D., associate director of NSU's National Coral Reef Institute (NCRI); Ray Ferrero, Jr., J.D., chancellor of NSU; and George Hanbury II, Ph.D., NSU president hold a check for \$15 million from the federal stimulus package to NSU to help build America's largest coral reef research center.

On January 29, U.S. Senator Bill Nelson visited the NSUOC for a briefing on the \$15-million award. Ray Ferrero, Jr.; George L. Hanbury II; Mitchell W. Berger, J.D., NSU Board of Trustees member; and Richard Dodge were on hand to greet him and brief him on the plans for the building that will house the Center of Excellence for Coral Reef Ecosystem Science.

Florida Governor Charlie Crist visited the OC on February 12 for a briefing on the \$15-million award. Ray Ferrero, Jr.; **Richard Dodge**; and John Santulli, NSU vice president of facilities management, were on hand to greet the Governor and brief him on the plans.

Following a briefing by Dodge and comments by Ferrero, Crist toured the coral reef restoration lab run by NCRI research scientist, **Alison Moulding**, Ph.D., followed by a visit to the coral history lab. 🐠



(L-R): Richard Dodge, OC dean; George L. Hanbury II, NSU president; Bill Nelson, U.S. Senator; and Ray Ferrero, Jr., chancellor, discuss the new Center of Excellence for Coral Reef Ecosystem Science.



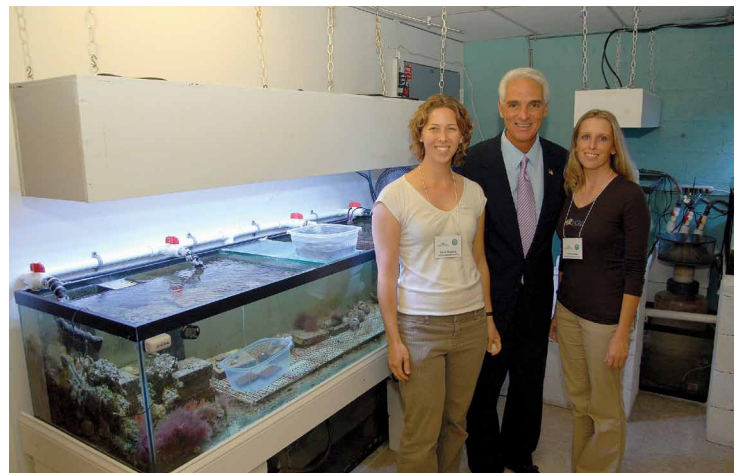
In attendance were local and federal agency partners from Broward County, the Florida Department of Environmental Protection's Southeast Florida Coral Reef Initiative, members of the NSUOC Dean's Development Council, NSUOC faculty members and graduate students, and local elected officials.



(L-R): John Santulli and George Hanbury point out the location and nature of the planned Center of Excellence for Coral Reef Ecosystem Science to Bill Nelson.



(L-R): NCRI research scientist Kevin Helmle, Ph.D., and graduate research assistant Dusty Marshall show Crist the coral history lab.



(L-R): Alison Moulding, Crist, and research assistant Abby Renegar in the coral restoration lab

Oceanographic Center's National Coral Reef Institute Becomes Official Member of the International Coral Reef Initiative

Richard Dodge, Ph.D., Oceanographic Center (OC) dean and National Coral Reef (NCRI) executive director, and **Wendy Wood**, NCRI administrative coordinator and assistant director of development attended the International Coral Reef Initiative (ICRI) meeting in early January in Monaco. NCRI has attended the past four meetings of ICRI and was officially welcomed as a new member of ICRI at this meeting. Dodge presented on the work of NCRI, the new Center of Excellence for Coral Reef Ecosystem Science, and the proceedings of the 11th International Coral Reef Symposium.

ICRI is a partnership among governments, international organizations, and nongovernment organizations. It strives to preserve coral reefs and related ecosystems by implementing Chapter 17 of Agenda 21, and other relevant international conventions and agreements. The secretariat of the initiative is currently co-hosted by France, assisted by Monaco and Samoa. 🌊



(L–R): Wendy Wood; Laurent Stefanini, French ambassador for the environment; Faalavaau Perina Sila, assistant chief executive officer, Samoan Ministry of Foreign Affairs and Trade; and Richard Dodge at the ICRI meeting

People on the Move

NCRI Scientists Deliver Seminal Scientific Data to Saudi Arabia

National Coral Reef Institute (NCRI) scientists **Sam Purkis**, Ph.D., assistant professor, and **Bernhard Riegl**, Ph.D., professor and NCRI associate director, traveled to Saudi Arabia to attend a meeting of a select group of Red Sea marine experts in the coastal city of Jeddah. The meeting was convened for the purpose of communicating findings to Saudi Arabia that were developed during a four-year collaboration between the NCRI and the Khalid bin Sultan Living Oceans Foundation (KBSLOF). The center-piece of this effort is benthic habitat maps covering more than 10,000 km² of the exceptional coral reefs that fringe the Saudi Arabian coast of the Red Sea. Also working on this project is KBSLOF fellow and NCRI doctoral student **Gwilym Rowlands**. During the visit, Riegl and Purkis had the opportunity

to visit the recently opened King Abdullah University of Science and Technology (KAUST), which, buoyed by an unrivalled financial endowment, is aiming to become one of the world's leading research venues. Accompanying them on the tour was world-renowned marine scientist Sylvia Earle, Ph.D., explorer-in-residence with the National Geographic Society. Further meetings were held with several government agencies in Saudi Arabia that plan to use the project as the basis for the designation of marine protected areas and fisheries management initiatives along the fragile Red Sea coast.

Eight M.S. students and their adviser, **David Kerstetter**, Ph.D., attended the annual meeting of the Florida Chapter of the American Fisheries Society, held February 16–18 in Ocala, Florida. The OC donated T-shirts and other NCRI/GHRI items to the society's annual meeting raffle (the proceeds of which support student travel awards to this annual meeting). This year, two of Kerstetter's students, **Ethan Machemer** and **Mae Taylor**, received money to travel to the meeting to give oral presentations on their thesis research. Through the raffle, \$2,100 was raised for next year's student travel awards.

Another OC student, **Tiffany Weidner**, was elected state student subunit president. Kerstetter was elected president-elect by the state chapter. This is the first time that someone from NSU has held this office. He will assume the presidency in January 2011 when the Florida Chapter hosts the regional meeting of the Southern Division fisheries scientists (ranging from West Virginia through Texas) in Tampa.

The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals. The Florida Chapter was founded in 1980 as a state subunit of the national organization.



Delegates of the meeting at the King Abdullah University of Science and Technology are (L–R): Sam Purkis; Sylvia Earle; Bernhard Riegl; and Philip G. Renaud, captain, USN (Ret), Living Oceans Foundation executive director.

Mahmood Shivji, Ph.D., gave an invited presentation on January 29, 2010, to the International Game Fish Association (IGFA) Board of Trustees. Shivji's presentation was on the state of the world's shark populations and fisheries and the need for more conservation efforts.

M.S. students **Rolando Santos** and **Shannon Dunn** attended the Estuaries and Coasts in a Changing World conference hosted by the Coastal and Estuarine Research Federation. The conference was held November 1–5, 2009, at the Oregon Convention Center in Portland, Oregon. Santos and Dunn presented talks in the session called “Applications of Landscape Ecology to Estuarine and Coastal Environments.”

Santos gave an oral presentation on his M.S. thesis entitled “Linkages among mangrove fish populations and adjacent seagrass habitats in Biscayne Bay, Florida.” Dunn's oral presentation, also on her M.S. thesis, was entitled “Analyzing spatial patterns in reefscape ecology via satellite remote sensing, benthic habitat mapping, and morphometrics.”



Shannon Dunn and Rolando Santos stand in front of the famous Multnomah Falls of Oregon.

A team of researchers led by **Erik DeMicco** (M.S. Marine Biology and Coastal Zone Management '01, and current doctoral candidate) recently revisited the TROPICS field study sites in Bahia Almirante, Panama, to collect data on the relative effects of dispersed oil and nondispersed oil on coral, seagrass, and mangrove communities. The study, now in its 25th year, is currently supported by Clean Caribbean and Americas (CCA), an international nonprofit oil spill response cooperative based in Fort Lauderdale. The objective of CCA is to enhance the capability to promptly and efficiently respond to marine oil spills in the Caribbean and Latin American area.

The TROPICAL Oil Pollution Investigations in Coastal Systems (TROPICS) study began in 1984 when researchers intentionally released a small amount of predispersed crude oil and nontreated crude oil respectively into two 30 x 30 meter study sites. The sites contained coral, seagrass, and mangroves. The initial group of researchers monitored the effects of the two treatments compared to the reference site after 3 months, 6 months, 1.5 years, 5 years, and 10 years. That initial team, which included the OC's **Richard Dodge**, Ph.D., produced peer-reviewed papers that substantially increased the body of science on this topic. After an eight-year hiatus, CCA revisited the site in 2002, 2003, 2005, and this past June under the direction of DeMicco.

Preliminary results appear to show that even though traces of crude oil still remain in the soil after 25 years at the nontreated crude oil site, the microcosm is now representative of the local community. The results will be presented in August 2010 in Manaus, Brazil, at an international mobilization exercise of government and industry in response to a hypothetical oil release and at the 2011 International Oil Spill Conference in Portland, Oregon.

TROPICS is the longest-running, foundational study for Net Environmental Benefit Analysis (NEBA). NEBA is a methodology for comparing and ranking the net environmental benefit of different cleanup strategies, helping responders to know what method will cause the least environmental disruption. DeMicco can be contacted at edemicco@nova.edu for more information.



(continued on page 10)

Other News

On January 12, members of the Broward County Sea Turtle Conservation Program assisted the Florida Department of Environmental Protection (DEP) in releasing nearly 60 cold-stunned sea turtles back into the Atlantic Ocean off John U. Lloyd State Park in Dania Beach. The turtles—some weighing up to 400 pounds—were trucked down to Dania Beach on that Tuesday from the Indian River Lagoon in Central Florida. The group used their prior training to safely get the sea turtles back into the warmer waters off the coast of Broward County. These loggerhead and green sea turtles got too cold when the temperatures in Florida dropped down to the 30s and ended up becoming stranded on beaches throughout Florida. The turtles were cared for until they were ready to be released into an area with warmer water temperatures than where they were originally stranded. There have been more than 3,000 sea turtles rescued thus far throughout the state. They've been sent to rehab facilities to be cared for during this cold-stunning event. Participants who assisted with this event include Lou Fisher (DEP); **Curtis Burney, Ph.D.**; and students **Megan Wilson, Nina Thompson, Teal Kawana, Gina Rappucci, Danielle Kleppan, Laura Eldredge, Crystal Conway,** and **Lisa Morse.**

Also in regards to sea turtles, once again the Broward Sheriff's Office inmates helped out the sea turtle project. Each year since 2002, the Broward County/NSUOC Sea Turtle Conservation Program has had the assistance of the inmates.

Academic Excellence: OC Professor, Cited More Than 1,100 Times, Publishes His 101st Paper

The most-accepted currency for academic excellence is the number of publications an individual researcher produces in peer-reviewed journals and how often these get cited in the literature. OC professor **Bernhard Riegl, Ph.D.**, has just received the page-proofs for his 101st peer-reviewed publication and his work appears on Google-Scholar as being cited more than 1,100 times. Besides this, he is also author and editor (together with **Richard Dodge**, OC dean) of the award-winning book *Coral Reefs of the USA* (named as Outstanding Academic Title of 2008 by *Choice Magazine*), has another book in print, and a third one due to finish by the end of the year. He is also the geology editor for the international scientific journal *Coral Reefs*. His achievements are an example of the high level of academic research that takes place at the NSUOC.

OC Scientists Receive Global News Coverage

A manuscript authored by **Sam Purkis, Ph.D.**, assistant professor of the Oceanographic Institute, that was just published in the March edition of the journal *Geology* has received extensive media coverage from both the *BBC News* and *Nature News*. The work is co-authored by **Gwilym Rowlands**, research assistant, and **Bernhard Riegl, Ph.D.** It explains the morphology of coral reefs in the Middle East in relation to a past monsoonal climate that, several thousand years ago, characterized the now ultra-dry Saharan region. Upon invitation, Sam Purkis briefed the press on the work while attending the AGU Ocean Sciences Meeting in Portland, Oregon. Following the release of the story by the BBC, the work received further attention from numerous media organizations. The NSU team is sponsored on this project by the Khaled bin Sultan Living Oceans Foundation, the director of which, Philip Renaud, also contributed to the publication. *Geology* is the leading journal in the earth sciences. 🐟



Nina Thompson and Megan Wilson (M.S. '09) assist a sea turtle.



BSO inmates at the OC cutting and sanding stakes that are used throughout the season to mark sea turtle nests.

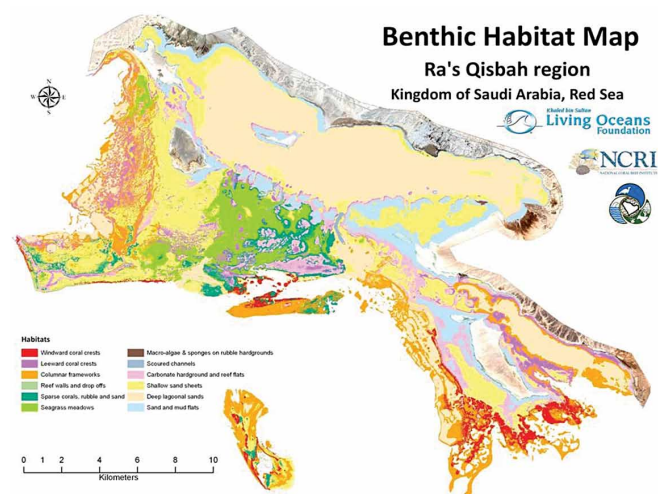


Photo courtesy of Gwilym Rowlands

Red Lionfish Found on the Beach of John U. Lloyd State Park

On February 21, a red lionfish (*Pterois volitans*), was found on the beach near the jetty by Dan Szopinski, a park ranger. Szopinski brought it to the OC, where it was catalogued, measured (32 cm), and photographed by **James Thomas**, OC professor, and graduate student **Sarah Jasper**. Red lionfish have been spotted recently off the coast of Dania Beach, and this is the fifth one to be spotted near the park. They have become an invasive species up and down the east coast from New England to the Caribbean and appear to be gaining a foothold here as well. This specimen was found in shallow water and washed up on a populated beach. On the day it was found it was 75° F and sunny, so the beaches were busy, especially after a



“cold snap” for a couple weeks. Apparently, an eight-year-old boy was running around holding the fish by the tail before the ranger arrived. Hopefully, no more red lionfish will be visiting the beach, but it did give the ranger an interesting day. 🐟



Sarah Jasper measures the lionfish.

Awards

On December 16, a reception was held to recognize those that received external funding for their research. Of the 37 researchers honored by the university, 15 were faculty members from the Oceanographic Center.

Other OC faculty members who received outside funding, but were unable to attend the reception, were Ph.D.s **David Gilliam**, **Curtis Burney**, **Sam Purkis**, **Amy Hirons**, **Richard Spieler**, and **Eric Hochberg**.

Greg McIntosh, who was once employed at the Oceanographic Center, recently received the International Game and Fish Association (IGFA) Conservation Award. McIntosh, who now lives in Alaska, is a long-standing member of IGFA’s International Committee of Representatives. There are approximately 300 IGFA representatives from nearly 90 countries and territories on the IGFA International Committee. These representatives act as ambassadors of IGFA—a liaison between the angling interests in their areas across the globe and IGFA Headquarters in the United States. Consideration for new candidates is primarily based on personal recommendations; recreational fishing experience; and knowledge of the IGFA and its history, rules, the recreational



Front row: Frank DePiano, vice president for academic affairs; Alexander Soloviev; Alison Moulding; Bernhard Riegl; and Jose Lopez. Back row: Brian Walker; Richard Dodge, OC dean; George Hanbury, NSU president; Charles Messing; and Mahmood Shivji. (Not shown: David Kerstetter.)

fishing industry, geographical location, and other factors. Subsequently, IGFA representatives must demonstrate integrity and knowledge with respect to the recreational angling community at home and abroad.

McIntosh is active both as a member and representative and, in the last three

years, has been invaluable in keeping IGFA abreast of the allocation conflicts occurring in Alaska’s halibut fishery. He has helped draft IGFA policy on the subject and has done an excellent job in representing IGFA at regional fisheries management meetings on this and other fisheries-related subjects. 🐟

MASTERCURRENTS

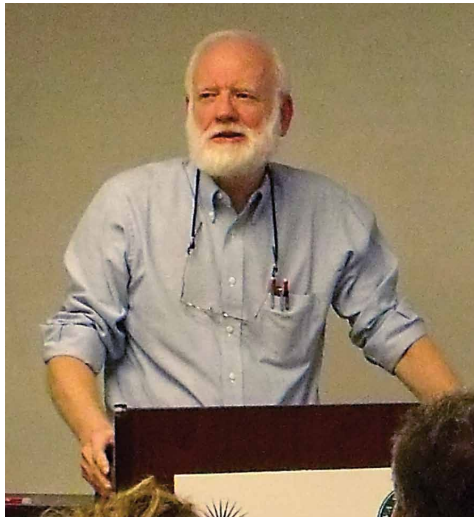
INSTITUTE OF MARINE AND COASTAL STUDIES

Summer Term

May 3–July 23

Seminars

On February 19, NSUOC welcomed Douglas Wartzok, Ph.D., as part of its **Distinguished Seminar Series**. Wartzok is vice president of academic affairs and professor of biology at Florida International University. He has B.A. degrees in physics and mathematics from Andrews University, an M.S. in Physics from the University of Illinois, and a Ph.D. in Biophysics/Neurobiology from Johns Hopkins University. Wartzok has been a faculty member and academic administrator at Johns Hopkins University, Purdue University, University of Missouri—St. Louis, and Florida International University.



Wartzok at podium

Wartzok presented a talk titled, “Effects of anthropogenic sound on marine mammals.” Human-generated sound in the oceans has increased in the past decades. This sound can alter behavior, reduce an animal’s acoustic space through masking, temporarily shift hearing thresholds, initiate stress-induced physiological responses, or lead to a permanent loss of hearing. In most cases, the population level effects of anthropogenic sound are

M.S. degree specialties are marine biology, biological sciences, coastal zone management, and marine environmental sciences. Each course carries 3 credit hours or may be audited. Tuition is \$799 per credit hour (50 percent less for audit). Classes are eight 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) for the summer session starts on April 12 and takes place at www.webstar.nova.edu or at the Oceanographic Center. For further information, call Richard Spieler, Ph.D., or Melissa Dore at (954) 262-3610 or 800-396-2326, or email imcs@nova.edu. More information can be found at the Web site www.nova.edu/ocean.



Following the seminar a catered reception was held in Wartzok’s honor.

unknown. However, good evidence links mid-frequency antisubmarine naval sonar to strandings of beaked whales, affecting at least local populations. A number of causal hypotheses have been suggested and colleagues are conducting experiments to determine plausible pathways.

Wartzok’s research on marine mammals has taken him from the Arctic Ocean to Antarctica to study seals, whales, and walrus. He, his colleagues, and graduate students have developed acoustic tracking systems for studying seals, and radio and satellite tracking systems for studying whales. His research focuses on behavioral and physiological ecology of marine mammals, sensory systems involved in under-ice navigation by seals, and psycho-physiological studies of captive marine mammals. For eight years, he also edited the journal *Marine Mammal Science* and is now editor emeritus. He is the editor of special publications for the Society for Marine Mammalogy, and a member of the Committee of Scientific Advisors,



A chilly but nice night.

U.S. Marine Mammal Commission. He was a member of the National Academy of Sciences Committee on “Assessing Ambient Noise in the Ocean with Regard to Potential Impacts on Marine Mammals,” and chaired a National Academy of Sciences Committee on “Determining Biological Significance of Marine Mammal Responses to Ocean Noise.”

Ph.D. Degree Offered

The Oceanographic Center offers a doctoral degree in oceanography/marine biology. The program requires a minimum of 90 credits beyond the baccalaureate. At least 24 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 \$4,800 per session. 🐟

On February 11, an informal seminar event took place with **Yves Jean**, Ph.D., and **Steffen Schmidt**, Ph.D. Jean is director of science and technology at the Université du Québec a Montréal and vice-president of the Canadian Wildlife Fund and Foundation and Schmidt (Dr. Politics) is a professor of political science at Iowa State University and an adjunct professor with a specialty in coastal policy at NSUOC.

Jean shared current and future international initiatives around climate change education, including perspectives from his recent attendance at Copenhagen (COP 15), and related involvement of the International Alliance of Leading Education Institutes (IALEI), as well as the Université du Québec a Montréal. His talk was titled "Climate Change Education: International Perspectives and Future Possibilities."

Schmidt's talk was "The Politics of Climate Change: Is There Room for Compromise?" and included considerations such as U.S. politics (especially what will happen if the Democrats lose the majority in Congress in November 2010), Copenhagen, Cap and Trade, The Group of 77, and Climate Compensation.



Paul Schmidt, Jane Dougan, Steffen Schmidt, and Yves Jean

NSU Scientists Host Workshop on the Conservation of the Chagos Archipelago

Sam Purkis, Ph.D., assistant professor of the Oceanographic Institute, and **Gwilym Rowlands**, research assistant, hosted a seminar March 1 at the OC to promote awareness about the ongoing consultation by the British Government to

declare the Chagos Archipelago the largest Marine Protected Area on Earth. Present at the meeting was William Marsden, chairman of the Chagos Conservation Trust in the United Kingdom. Marsden is a former member of the British Diplomatic Service with appointments including ambassador to Argentina, Costa Rica, and Nicaragua and Under-Secretary of State, Americas. Short presentations were also given by Polita Glynn (manager, Pew Fellows Program in Marine Conservation), Andrew Baker (professor, University of Miami, RSMAS), and **Bernhard Riegl**, Ph.D. (professor, NSUOC). The well-attended seminar also saw the announcement that the Chagos Conservation Trust in the United States (CCT US) had been awarded the status of a 501(c)(3) Charitable Foundation. The organization, chaired by Sam Purkis, will promote practical conservation measures, scientific research, and monitoring in relation to the Chagos. Carol Garner, secretary and fund-raiser for the CCT US was present at the meeting to tender that exciting news. The Chagos Archipelago, a British Territory, sits in the center of the Indian Ocean and boasts 25,000 sq. km of pristine coral reefs. The United States has strong involvement in the region by virtue of the military facility on Diego Garcia, the largest island in the archipelago. 🐟



Sam Purkis introduces Polita Glynn of the Pew Program. A lively debate on conservation and politics followed.

Dissertations

Vince P. Richards, “Genetic connectivity and microevolution of coral reef associated taxa.” Committee: Mahmood Shivji, Ph.D.; Bernhard Riegl, Ph.D.; Sam Purkis, Ph.D.; and George Duncan, Ph.D. (Carnegie Mellon’s Heinz College, Australia). February 9.

Lance K.B. Jordan, “Multiexperimental study of early-life ecology of grunts (*Haemulidae*) on southeast mainland Florida coral reefs.” Committee: Richard Spieler, Ph.D.; Mahmood Shivji, Ph.D.; David Gilliam, Ph.D.; and Ken Lindeman, Ph.D. (FIT). March 18.

Theses

Amy Heemsoth, “Diet composition of swordfish *Xiphias gladius* within the straits of Florida.” Committee: David Kerstetter, Ph.D.; Amy Hirons, Ph.D.; and John Walter, Ph.D. (NOAA SEFSC Miami Lab). Nov. 16.

Kristian Taylor, “Geomorphic changes to Florida Bay within the past century.” Committee: Sam Purkis, Ph.D., and Bernhard Riegl, Ph.D. Nov. 24.

Katherine Dunlop, “Antipredator responses to the non-native African jewelfish *Hemichromis letourneuxi* by native Everglades prey.” Committee: Jennifer Rehage, Ph.D. (FIU); Michael Heithaus, Ph.D. (FIU); and Amy Hirons, Ph.D. Dec. 4

Kym Walsh, “Diurnal movements and site fidelity of the Florida Manatee *Trichechus manatus latirostris*, in Fort Lauderdale, FL.” Committee: Edward Keith, Ph.D.; Curtis Burney, Ph.D.; and Allan Sosnow, M.S. (Port Everglades). Dec. 4.

Megan Seese, “Effects of *Laurencia* and *Palisada* spp. on epifaunal composition within *Thalassia testudinum* beds on Abaco, The Bahamas.” Committee: Jennifer Rehage, Ph.D. (FIU); Craig A. Layman, Ph.D. (FIU); and Sam Purkis, Ph.D. Dec. 8.

Katherine Peach, “Population dynamics and predictions for the calcareous green algae, *Halimeda*, on the coral reefs of southeast Florida.” Committee: Bernhard Riegl, Ph.D.; Sam Purkis, Ph.D.; and Allison Moulding, Ph.D. Dec. 9.

Crystal Conway, “Study of secondary metabolite gene expression in marine microbial co-cultures using qPCR.” Committee: Jose Lopez, Ph.D.; Donald McCorquodale, Ph.D.; and Nwadiuto Esiobu, Ph.D. (FAU). Jan. 25.

Rebekah Horn, “Applying a molecular genetics approach to shark conservation and management: assessment of DNA barcoding in hammerhead sharks and global population genetic structuring in the gray reef shark (*Carcharhinus amblyrhynchos*).” Committee: Mahmood Shivji, Ph.D.; Richard Spieler, Ph.D.; and Dave Gilliam, Ph.D. Feb. 26.

Lucy A. Howey, “Seasonal movement patterns, migratory behavior, and habitat utilization of the blue shark (*Prionace glauca*) in the western North Atlantic. Committee: Mahmood Shivji, Ph.D.; Richard Spieler, Ph.D.; and Bradley Wetherbee, Ph.D. (Univ. of Rhode Island). March 12.

Capstones

Michael Lehmann, “Constructed wetlands for wastewater treatment in subtropical and tropical climates with investigations toward the use of mangroves.” Committee: Donald McCorquodale, Ph.D., and Curtis Burney, Ph.D. Nov. 13

Dina Benes, “The evidence for invasional meltdown: The Great Lakes as a case study.” Committee: Jennifer Rehage, Ph.D., and Donald McCorquodale, Ph.D. Dec. 18.

Mike Sanders, “Blue crab fisheries of Chesapeake Bay and the Gulf of Mexico: A stock in decline.” Committee: Donald McCorquodale, Ph.D., and Curtis Burney, Ph.D. March 23.

Publications

Brock, J.C. and S.J. Purkis. (2009). The emerging role of LiDAR remote sensing in coastal research and resource management. *Journal of Coastal Research* 53:1–5 Special Issue (Purkis and Brock Eds.).

Bayse, S.M. and D.W. Kerstetter. (2010). Assessing the bycatch reduction potential of variable strength hooks for pilot whales in the western North Atlantic pelagic longline fishery. *Journal of the North Carolina Academy of Sciences* 126(1): 6–14.

Purkis, S.J., G.P. Rowlands, B.M. Riegl, and P.G. Renaud. (2010). The paradox of tropical karst morphology in the coral reefs of the arid Middle East. *Geology* 38: 227–230. 🐠

People on the Move

A large contingent of NSU graduate students attended the 18th Biennial Conference on Marine Mammals held October 12–16 in Quebec City, Canada. **Gemma Barnacle** presented her M.S. thesis results about the abundance and site fidelity of minke whales (*Balaenoptera acutorostrata*) off the Atlantic coast of Nova Scotia, Canada. **Vincent Cordero** presented his M.S. thesis results on the correlations between oceanographic variables and *Kogia* strandings in Florida. **Gina Rappucci** presented her M.S. thesis results about the affect of the tidal cycle on the Florida manatee (*Trichechus manatus latirostris*) at the Port Everglades Power Plant. **Hayley Schiebel Cato** presented her M.S. thesis results on the analysis of acoustic signals from delphinids in the northwest Atlantic Ocean. **Rachel Stronach** presented her M.S. thesis results about the abundance and distribution of spinner dolphin (*Stenella longirostris*) in the southern Tañon Strait, Philippines. 🐠

Annual Christmas Party

The annual OC Christmas party was held at Pirates Republic on the New River on December 17, 2009. At the party, anniversary awards were given out by **Richard Dodge**, OC dean.



The Shiyji family: wife Laura, daughter Zahra, and Mahmood



Mark Rogers and Mieka Kalinoski



Veronique Walker and Wendy Wood-Dewer
(6 lb., 18" William III was born March 1)



Peggy Oellrich, Lance and Judy Robinson, and Kathy Maxson



Julio Perez and Christine Testerman



Kirk Killfoyle, Richard Spieler, Ted Testerman, and Dave Gilliam



Mark Rogers, Brian Buskirk, and Rebekah Horn



Lissa Lackman and Chuck Messing



Kristian Taylor, Stephanie and Zach Bush, and Jessica Freeman



Jose Lopez, Ed Veliz, and Richard Dodge

In Memorium

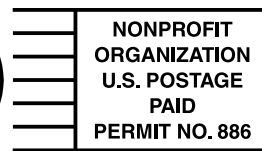
Hamilton C. Forman 1919–2010

The Oceanographic Center mourns the loss of a good friend and benefactor, **Hamilton C. Forman**. Forman, a pioneer of Davie and a giant in Broward County's political history, passed away at the age of 90 on January 11. His parents, Hamilton M. and Blanche C. Forman, moved here in 1910 and started a dairy farm in Davie in 1914 after his brother Charles was born. It was the first dairy farm to be started in South Florida. From his father, Forman learned how to wield political power while helping improve Broward, and he and his brother, who passed away in 2006, were very active in the community, especially when it came to education. NSU, Nova High School, Broward College, and Blanche C. Forman Elementary School sprang up on donated land that was once the family farm. The first building to be built on the present site of the Oceanographic Center in the early 70s was funded through the generosity of the Forman brothers, and the building carries their names. He is survived by sons Austin and Collins and eight grandchildren. 🐡

DR. CHARLES AND HAMILTON FORMAN BUILDING CENTER FOR OCEANOGRAPHIC RESEARCH



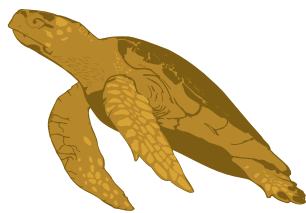
The Forman family in front of the newly completed building (L–R): Son Austin and his wife (now deceased) Katherine O'Donnell Forman, Hamilton and his wife Doris (also deceased), and son Collins



Christmas party: Kevin Helmle and Gavin



Melissa Helmle and Max

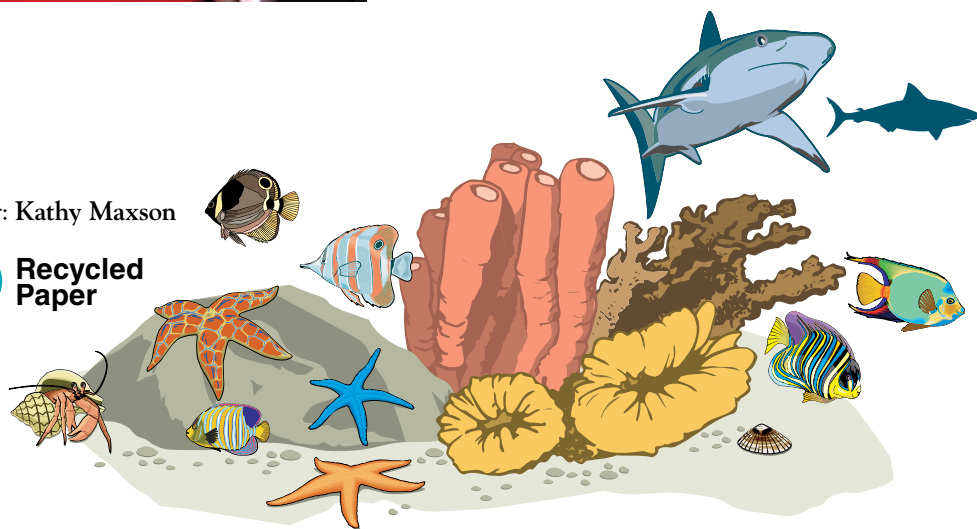


Published quarterly by
Nova Southeastern University
3301 College Avenue
Fort Lauderdale, Florida 33314-7796

Editor: Kathy Maxson



Recycled Paper



NOTICE OF NONDISCRIMINATION

Nova Southeastern University admits students of any race, color, sex, age, nondisqualifying disability, religion or creed, sexual orientation, or national or ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school, and does not discriminate in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.