



University of Miami Undergraduate Marine and Atmospheric Science Program January 2009

ON THE WEB AT: <http://msc.cox.miami.edu>

Welcome - We welcome our new and returning students. Please feel free to stop by the Marine and Atmospheric Science Office for advising, or to check on research, volunteer and job opportunities, upcoming events, information on clubs, and other announcements.

The Marine Science Office is in Room 182 of the Cox Science Building.
Our telephone number is (305) 284-2180. Our office email is marsci@miami.edu.
The Program website is: <http://msc.cox.miami.edu>



OFFICE HOURS ARE 8:30 AM – 5:00 PM, Monday – Friday.

We wish you well in the upcoming semester. Please be sure meet with your advisor for any academic concerns that you may have.

The advisors in the program are:

Marine Science
Dr. Dan DiResta
Dr. Donald Olson
Dr. Jill Richardson

Marine Affairs
Prof. Maria Villanueva

Meteorology
Dr. Brian Soden

Research News

Rosenstiel professors contribute to ocean chemistry breakthrough

An international team of scientists that includes corresponding authors Frank Millero, Martin Grosell, and Pat Walsh, professors at the Rosenstiel School of Marine and Atmospheric Science, has solved a mystery that has puzzled marine chemists for decades. They have discovered that fish contribute a significant fraction of the oceans' calcium carbonate production, which affects the delicate pH balance of seawater. The study gives a conservative estimate of 3 to 15 percent of marine calcium carbonate being produced by fish, but the researchers believe it could be up to three times higher.

Published Friday, January 16 in *Science*, their findings highlight how little is known about some aspects of the marine carbon cycle, which is undergoing rapid change as a result of global carbon dioxide emissions. Until now, scientists believed that the oceans' calcium carbonate, which dissolves in deep waters making seawater more alkaline, came from marine plankton. The recent findings explain how up to 15 percent of these carbonates are, in fact, excreted by fish that continuously drink calcium-rich seawater.

MSC Newsletter -

The Bathybius, the Marine Science Newsletter, will be posted on the web to keep you up to date on academic and other information that could be of interest to marine science, marine affairs and meteorology students. You may view it on the web at: <http://msc.cox.miami.edu>

MSC Computer Lab -

The Marine Science Lab at Cox 184 has computers for MSC students' use between 8:30 AM to 4:45 PM, Monday through Friday, except during scheduled classes in the lab. You may use them to access your email and for the World Wide Web. The computers also have a number of programs that you will be using in your marine science lab courses.

Student Email -

Students should provide the University with a preferred email address for entry into the University's database. This enables professors to email assignments, information and important notices to you. If you have not already provided the University with your email preferred email address, you may do so by logging on to My UM, then select Student Menu.

University Resources -

Please remember that the University has numerous resources that can help you, from the Library Services to the Toppel Career Placement Center. We hope that you will use these resources during your stay at the University. We would like to provide you with additional information on a few, which may be helpful to you such as:

STUDENT ACADEMIC DEVELOPMENT CENTER - This Center is particularly helpful in preparing students. It offers tutoring (at no charge, in most cases) and support. It is located on the second floor of the University Center, Suite N-201. The telephone number is 284-2800.

My UM SYSTEM - The My UM system permits you to view information such as student accounts, grades, employment opportunities and registration. To access the system, you will need to go to <http://easy.miami.edu/> or www.miami.edu and click on the My UM option at the top. If you're new to the system, click on "first time user" and follow the instructions. If you have any questions, please call 305-284-5455 or email the Registrar at registrar@miami.edu.



RSMAS LIBRARY - The RSMAS library has extensive holdings in the literature of atmospheric and marine sciences and marine affairs. It also has direct access to other UM Library systems. For information, please call the library at (305) 361-4060 or visit the website at: <http://www.rsmas.miami.edu/support/lib/>

MATH LAB - The Math Lab offers individual tutoring to students on appointment basis. Students registered in math courses below the 300 level are given priority. Please contact Dr. Leticia Oropesa at 284-2575 for more information.

CHEMISTRY RESOURCE CENTER - Assists all students taking 100 - 200 level chemistry courses. Graduate students provide individual and small group tutoring. Call 284-5165 for more information.

Internships and Jobs – are viewable on the window of the MSC office.

We also maintain binders which contain numerous internship and job opportunities. You may also wish to view the following websites:

RECENTLY POSTED INTERNSHIPS:

NSF REU – http://www.nsf.gov/crssprgm/reu/reu_search.cfm

SOARS – Research in Atmospheric and Related Environmental Sciences –Deadline – Feb. 1, 2008
<http://www.soars.ucar.edu>

NOAA – Educational Partnership Program – <http://epp.noaa.gov>

WOODS HOLE – Students and Minorities Fellowship – Deadline – Feb. 15, 2008
<http://www.whoi.edu/page.do?pid=8065>

DOLPHINS PLUS – <http://www.dolphinsplus.com>

SOUTH FLORIDA STUDENT SHARK PROGRAM
<http://www.rsmas.miami.edu/groups/fmg/research/sfssp.html>

WHALE CENTER OF NEW ENGLAND – <http://www.whalecenter.org/intern.htm>

OAKRIDGE NATIONAL LABORATORIES - Deadline – Feb. 1, 2008 –
http://www.scied.science.doe.gov/scied/sci_ed.htm

<http://hopkins.stanford.edu/careers.htm>

<http://life.bio.sunysb.edu/marinebio/intern99.html>

<http://www.rsmas.miami.edu/pressreleases/20081201-sea-secrets.html>

<http://www.nwas.org/jobs.html>

http://www.mcbi.org/resources/res_career.htm

<http://www.ametsoc.org/>

<http://www.naml.org/careers/>

<http://www.seagrant.noaa.gov/>

<http://www.marinecareers.net/>

<http://www.marinemammalogy.org/strat.htm>



Student Organizations -

There are several student organizations at the University of Miami, which deal with environmental issues and marine affairs. Among them are:

RHO RHO RHO - The Marine Science Honor Society. Members work to develop research skills, scholarship, and career opportunities for fellow students. They are also dedicated to service to the marine community. More information is available on the Rho Rho Rho website at: <http://penguin.bio.miami.edu/rhorhorho/>

MARINE MAMMAL STRANDING NETWORK - This organization works with the National Marine Fisheries Service to respond to marine mammal strandings in Southeast Florida. It also organizes training for members in marine mammal photo identification, anatomy, and physiology. For information, you may email mmstcanes@gmail.com.

SCUBA CLUB - The club has been active in sponsoring weekend dives that have archaeological and photographic as well as scientific appeal. It also invites locally and nationally renowned speakers to its meetings. If you like to dive, this is a great way to meet people. The club is open to all University of Miami students. For more information you may go to: www.umscuba.org or email umscuba@gmail.com .



PROPELLER CLUB - The Propeller Club Port of University of Miami fosters understanding of marine and maritime industries with meetings and invited lectures. The club has close ties with the *Propeller Club Port of Miami*. For information, please contact Maria Villanueva at: mvillanueva@rsmas.miami.edu.

EARTH ALERT - This environmental club has been active across the campus. Among its projects are campus recycling, highway and beach clean-ups, and waterway monitoring. If interested, please email: earth_alert@yahoo.com

SAILING CLUB - This organization was founded to promote the great sport of sailing through both recreational and competitive means. The club sails every Sunday from the RSMAS campus and provides a beach and picnic atmosphere along with the fun and excitement of sailing. For information, please email sailingcanes@gmail.com.

AQUARIUM CLUB - This newly formed club was founded last semester and is open to students who currently maintain aquariums, would like to start one up, or anyone who simply has an interest in aquariums. If you would like to learn more about this group, please signup in the MSC office and you'll be added to their email list. You may also contact club board member Kasey Cantwell at k.cantwell@umiami.edu.

ATMOSPHERIC CLUB - The Atmospheric Club participates in the National Forecasting Contest, visits weather laboratories and operates their own weather station. Club members also participate in atmospheric research and present at local and national meetings. For additional information, please email: atmocub.studorg@miami.edu



If you are interested in these organizations, please visit the Marine Science office.

The clubs normally post their meeting times and locations, and the names and telephone numbers of their contact persons on the MSC office window during the first two weeks of classes. Throughout the semester, current information is available from the club mailboxes, which are located inside the MSC office.

RSMAS SHUTTLE SCHEDULE - SPRING 2009



January 20, 2009 — May 13, 2009

Monday through Friday

Shuttle service ends on the last day of classes.

Departure Time	To and From
7:45 AM	Departs Coral Gables Palm Court to Viscaya Metrorail
8:15 AM	Departs Viscaya Metrorail Station to RSMAS
8:30 AM	Departs RSMAS to Coral Gables Palm Court
9:00 AM	Departs Coral Gables Palm Court to Viscaya Metrorail
9:30 AM	Departs Viscaya Metrorail to RSMAS
10:00 AM	Departs RSMAS to Coral Gables Palm Court
11:00 AM	Departs Coral Gables Palm Court to RSMAS
11:30 AM	Departs RSMAS to Coral Gables Palm Court
12:00 — 1:00 PM	No Service
1:00 PM	Departs Coral Gables Palm Court to RSMAS
2:15 PM	Departs RSMAS to Coral Gables Palm Court
2:45 PM	Departs Coral Gables Palm Court to RSMAS
3:30 PM	Departs RSMAS to Viscaya Metrorail Station
3:50 PM	Departs Viscaya Metrorail Station to RSMAS
4:30 PM	Departs RSMAS to Coral Gables Palm Court
5:00 PM	Departs Coral Gables Palm Court to RSMAS
5:30 PM	Departs RSMAS to Coral Gables Palm Court (with stop at Viscaya Metrorail Station)

Revised: January 12, 2009

UNIVERSITY OF MIAMI ACADEMIC CALENDAR

SPRING 2009

Subject to Change

69 Class Days Per Semester

Jan 6	Tues	Deadline for Readmission
Jan 5 - 16	Mon-Fri	INTERSESSION
Jan 13	Tues	Housing Available for Students
Jan 13	Tues	International Student Orientation
Jan 14	Wed	Orientation Begins
Jan 19	Mon	HOLIDAY (MARTIN LUTHER KING, JR. DAY)
Jan 20	Tues	CLASSES BEGIN
Jan 20	Tues	Late Registration Fees in Effect
Jan 28	Wed	Last Day for Registration and to Add a Course
Feb 4	Wed	Last Day to Drop a Course Without a "W"
Feb 4	Wed	Last Day to Make a Change in Credit-Only Designation
March 2	Mon	Academic Alert Grades Due in myUM
March 6	Fri	Last Day to Apply for Graduation for Spring, Summer 1 and 2
March 14 - 22	Sat-Sun	SPRING RECESS / INTERSESSION
March 30	Mon	Registration Appointments Available on myUM
April 6	Mon	Last Day to Drop a Course
April 13	Mon	Registration for Fall Semester 2009 & Summer 2009* (Begins)
April 17	Fri	Magna/Summa Theses Due in Honors Program Office
April 17	Fri	Graduate Students: Last Day to Defend Dissertation/Thesis for Spring 2009 Graduation
May 1	Fri	CLASSES END (11:00 PM)
May 2 - 5	Sat-Tues	Reading Days
May 6 - 13	Wed-Wed	FINAL EXAMS
May 13	Wed	Graduate School Deadline for Completion of Dissertation/Thesis
May 13	Wed	SEMESTER ENDS (11:00 PM)
May 14	Thurs	Honors Day Convocation
May 14	Thurs	SPRING COMMENCEMENT EXERCISES - All Graduate Degrees
May 15	Fri	SPRING COMMENCEMENT EXERCISES - All Undergraduate Degrees
May 15	Fri	Housing Closes at NOON for Non-Commencement Participants
May 16	Sat	Housing Closes at NOON for Commencement Participants
May 18	Mon	Final Grades Released by Faculty in myUM by Noon
May 20	Wed	Final Grades Available to Students in myUM

* As Scheduled By Appointment

Updated October 21, 2008

[Most up-to-date calendars available at www.miami.edu/registrar](http://www.miami.edu/registrar)

2009 Sea Secrets Speakers Announced

*Lectures Feature Whale Sharks, Lionfish, Climate Change,
Polar Travel & Florida Keys Namesakes*



Photo Credit: Kelly Jackson

Virginia Key, Fla. — The University of Miami's Rosenstiel School of Marine and Atmospheric Science, and the Ocean Research and Education Foundation, today announced the roster of distinguished scientists and explorers who will speak in the 2009 Sea Secrets lecture series. The events, which are free and open to the public, are designed to provide insight and information about the oceans that cover two-thirds of our planet, and much of which, are still an enigma. Programs take place in

the Rosenstiel School Auditorium, 4600 Rickenbacker Causeway on Virginia Key, beginning with a reception at 5:30 p.m., followed by the lecture at 6:00 p.m.

"We are proud to bring leading scientists from all over the world to share their experience and knowledge of the planet and its oceans with the South Florida community," said Dr. Robert Ginsberg, founder of Sea Secrets and Rosenstiel School professor of Marine Geology and Geophysics. "The speakers this year are no exception: they cover a broad spectrum of topics that allow us to learn exciting, new things -- whether they are just off our shores, or a half a world away."

Sponsored by The Lawrence J. and Florence A. De George Charitable Trust, and the Charles N. and Eleanor Knight Leigh Foundation, Sea Secrets is designed for the South Florida non-scientific community. The following is the schedule for the Sea Secrets in 2009:

WEDNESDAY, FEBRUARY 18, 2009

EXPLORING THE NORTHWEST PASSAGE IN THE ERA OF CLIMATE CHANGE

David Thoreson, Explorer and Filmmaker

Blue Water Studios

Come along with David Thoreson as he sails north along the west coast of Greenland into the Northwest Passage. Experience what it is like to explore the planet's polar regions through his amazing photographs and tales of adventure, and learn from his firsthand accounts how climate change is causing dramatic ice loss. Thoreson will also share his perspective on the history of exploration in the Northwest Passage and how it is changing as climate on our planet shifts.

WEDNESDAY, MARCH 11, 2009

EXTREME MAKEOVER: PLANET EARTH EDITION

Dr. Brian Soden, Associate Professor of Meteorology and Physical Oceanography

University of Miami Rosenstiel School of Marine and Atmospheric Science

From heat waves to droughts, downpours and hurricanes, Earth's weather events can be both extreme and costly. And as our climate changes, these extreme events may be becoming more common. North America has experienced longer and more intense heat waves, more frequent heavy downpours, increasing droughts, and intensified hurricanes. Are these changes linked to global warming? If so, what will the future bring? Dr. Soden will examine the scientific evidence behind global warming, explore its potential links to extreme weather events, and discuss the changes that society may face in the coming decades. Come to learn more about global warming and what we may all prepare for in the near future.

WEDNESDAY, APRIL 15, 2009

INVASION OF THE LIONFISH

Lad Akins, Director of Special Projects

Reef Environmental Education Foundation (REEF)

There is a new predator prowling the coral reefs in the Atlantic Ocean. It has a voracious appetite, toxic spines, and belongs in the Pacific. It is the invasive lionfish, and from the Bahamas to Bermuda, along the U.S. East Coast and in the northern Caribbean it has been spotted. In some areas lionfish populations are exploding and they are devouring both fish and invertebrates. Scientists worry that without natural predators, lionfish are doing serious damage to local coral reefs and the ecosystems they support. Lad Akins has been working hard to monitor and remove lionfish from Atlantic reefs. He will explain the issue and what we can all do to help. It will be an enlightening talk and one that reveals how even the innocent dumping of an aquarium can put our precious ocean resources at risk.

WEDNESDAY, MAY 13, 2009

MYSTERIOUS MONIKERS OF SOUTH FLORIDA

Larry Perez, Author

South Florida Natural Resources Center

Hell's Bay, Monument Lake, Petrel Point, Little Africa, Snake Bight, and Dildo Key are just a few of the names locals may recognize for South Florida's wild wonders. The names of Florida's national parks are sometimes fanciful, sometimes frightening, and frequently puzzling. Author Larry Perez takes us on a guided journey over the regional landscape to reveal the true stories behind some of our most intriguing locales. Larry has spent nearly four years researching the origins of over 400 unique place names in the Everglades, Biscayne and Dry Tortugas National Parks and the Big Cypress National Preserve. Bring your charts, maps, and an inquiring mind for an engaging and interactive evening!

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RSMAS MARINE SCIENCE UNDERGRADUATE FELLOWSHIP Summer 2009



The University of Miami, Rosenstiel School of Marine and Atmospheric Science (RSMAS) Summer Undergraduate Research Fellowship Program is designed to introduce bright and energetic undergraduates to research in the marine and atmospheric sciences. The intensive summer program allows undergraduate students the opportunity to experience graduate level research and school.

The summer undergraduate fellows will conduct their research at the Rosenstiel School of Marine and Atmospheric Science located on Virginia Key, an island in Biscayne Bay connected by a causeway to metropolitan Miami, Florida. A RSMAS faculty member is assigned to each summer undergraduate fellow, according to the student's educational background and interests. The students will spend eight (8) weeks engaged in laboratory research at RSMAS.

The School's basic and applied research interests have grown to encompass virtually all of the marine and atmospheric sciences: Marine and Atmospheric Chemistry, Marine Biology and Fisheries, Applied Marine Physics, Physical Oceanography, Meteorology, and Marine Geology and Geophysics. RSMAS is one of the five largest oceanographic facilities in the United States and is the only institution of its type located in a tropical setting.

All fellows are expected to attend scientific lectures relevant to current research in the marine sciences, and present a short seminar on their summer research experience. The fellowship includes a \$2,000.00 stipend, campus housing in the dorms on a share basis, with the possibility of travel expenses. **The Summer Undergraduate Fellowship Program runs from June 1, 2009 through July 31, 2009.**

ELIGIBILITY:

Fellowships are offered on a competitive basis to United State citizens or permanent residents who are juniors or seniors enrolled full-time at a four-year college or university, and have a grade point average of 3.0 or better.

HOW TO APPLY:

Interested applicants may apply by submitting a complete application package. A complete package includes:

1. COVER LETTER. A typed letter from the student stating research interests, experience, educational goals, career objectives, and any other relevant information. Please send a resume or CV.
2. FACULTY LETTER OF REFERENCES (3). Each letter must be sealed in an official university envelope.
3. TRANSCRIPT. Most recent official transcript.
4. A SIGNED AND DATED APPLICATION. The application may be found on the Internet [here](#).

All of the above required items must be postmarked no later than **FEBRUARY 6, 2009** and mailed to:

Rosenstiel School of Marine and Atmospheric Science - Dr. Larry Peterson, Associate Dean for Academic Affairs
4600 Rickenbacker Causeway, Key Biscayne, FL 33149, (305) 421-4155

FELLOWSHIPS WILL BE AWARDED BY APRIL 30, 2009