

URBAN COAST INSTITUTE

newsletter

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4 & 5 National, State and UCI News Efforts to protect our environment are evident on all levels;

federal, statewide and local.



DIRECTOR'S MESSAGE

UCI Receives Grant to Develop Mid-Atlantic Ocean Mapping and Planning Portal

By Tony MacDonald

The Urban Coast Institute (UCI) has received a \$1.35 million grant from the National Oceanic and Atmospheric Administration to enhance Mid-Atlantic Regional Council on the Ocean (MARCO) Mapping and Planning Portal (Portal). The Portal was developed by MARCO as an online tool that utilizes the best scientific information available and consolidates available data to enable state, federal, and local users to utilize geo-spatial data to visualize and analyze ocean resource and human use information. For more information on MARCO and the MARCO Portal, go to the following web site: www.midatlanticocean.org.

MARCO was formed by the Governors of New York, New Jersey, Delaware, Maryland and Virginia in 2009. The Portal project will address the need to fill critical data and information gaps, and provide an information system that will support ocean planning and management in the Mid-Atlantic.

The overarching objective of the project is to improve MARCO, stakeholder and public knowledge about ocean uses and resources.

The project will:

- Engage ocean users and key stakeholders in compiling and vetting ocean use data;
- Integrate this ocean use data into the Portal;
- Enhance the current Portal to integrate new and existing data sets to provide "reporting" features that can be used to characterize different management options to inform management decisions;
- Build stakeholder and decision-maker capacity to access and productively use this Portal as a tool to inform ocean planning and management; and

- Develop a long term plan for hosting the Portal, and maintaining its continued evolution and functionality.

In implementing the project, the UCI will be supported by a team of experts from Rutgers University's Edward J. Bloustein School and Center for Remote Sensing and Spatial Analysis, The Nature Conservancy, The University of Delaware's Gerald J. Mangone Center for Marine Policy, and Ecotrust.

For more information on the Portal Project, contact Tony MacDonald, Director, amacdona@monmouth.edu; 732-263-5392.



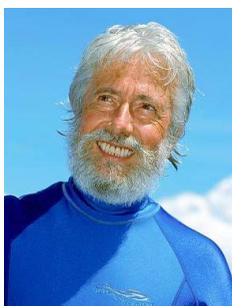
Jean-Michel Cousteau Receives National Ocean Champion Award

A capacity crowd was on hand on October 21 2011 in the Great Hall of Woodrow Wilson Hall for Jean –Michel Cousteau’s keynote address at the 7th Annual Future of the Ocean Symposium and Champions of the Ocean Awards Luncheon. The Symposium was supported as part of the Diane Gooch New Jersey Distinguished Lectures.

In addition to speaking at the Symposium, renowned ocean scientist and advocate Mr. Cousteau was honored as National Champion of the Ocean. The son of ocean explorer Jacques Cousteau, Jean-Michel Cousteau has investigated the world’s oceans. Honoring his father’s heritage, Cousteau founded the Ocean Futures Society in 1999 to carry on this pioneering work. Cousteau has produced over 80 films, received the Emmy, the Peabody Award, the 7 d’Or, and the Cable Ace Award.

At the luncheon, the UCI also presented a State Coastal and Ocean Leadership Award to Kenneth E. Pringle, former Mayor of Belmar and founding partner of the law firm of Pringle Quinn Anzano. During his tenure, Belmar established a natural beach area, which serves as a piping plover nesting area, and instituted an annual cleanup of the Shark River. Pringle led the effort to have Belmar’s Shark River receive the first in the state of New Jersey’s designation as a “Federal No Discharge Zone”, and secure federal funding for shore protection.

Proceeds from the luncheon support the Heidi Lynn Sculthorpe Student Summer Research grants and operations of the UCI.



Jean-Michel Cousteau, explorer, environmentalist, educator, film producer, and chairman of the board and president of Ocean Futures Society talked at UCI’s Symposium this year.

Photo by T. Ordway 2005



UCI Collaborates on Barnegat Bay Restoration

The UCI is a partner with the Barnegat Bay Partnership and others to implement the Governor’s comprehensive action plan for Barnegat Bay. As part of that plan, ten areas were identified for action. UCI is currently working on two priority areas: Adopt More Rigorous Water Quality Standards, and Filling Gaps in Research.

Water Quality

In June 2011, the NJ DEP, UCI and its partners launched a comprehensive ambient water quality monitoring network in the Barnegat Bay. This network provides water quality data that establishes baseline conditions of the Bay and assesses these conditions against water quality standards. This information will then direct actions, including the possible establishment of a TMDL (Total Maximum Daily Load) for the Bay.

Water quality monitoring is taking place at 12 locations on tributaries to the Bay and 14 locations within the Bay itself. UCI Marine Scientist, Jim Nickels is using the UCI 18ft Parker boat to collect water samples and take measurements at 4 locations in northern Barnegat Bay, ranging from Mantoloking to the mouth of the Toms River. Jim is assisted by students from the University’s Marine and Environmental Biology and Policy Program (MEBP). In addition to collection of samples, DEP will also be using four of UCI’s fixed monitoring stations in Barnegat Bay, which were installed and maintained with support from the Fairleigh S. Dickinson, Jr. Foundation and the Barnegat Bay Partnership to supplement the effort.

Zooplankton

NJDEP has contracted with NJ Sea Grant, UCI and NOAA’s Sandy Hook Marine Lab to undertake a baseline characterization of zooplankton in Barnegat Bay. Zooplankton includes shrimps, larval fishes, and other large animals in the water column such as jellyfish. They form an important food web link between phytoplankton algae and higher trophic levels such as crabs, shrimp, clams and fish. The last definitive studies of zooplankton in Barnegat Bay were conducted in the 1970’s. New information is needed on the abundance and distribution of these important ecological organisms.

The UCI in partnership with the NOAA/NMFS Lab at Sandy Hook will be conducting the study starting in May and continuing throughout the year. Jim Nickels will be working with Monmouth University Assistant Professor, Dr. Ursula Howson and MEBP students to collect and pre-process the samples, which will be turned over to the NOAA Sandy Hook Lab for identification and enumeration.

For more information on the Barnegat Bay contact Jim Nickels at jnickels@monmouth.edu.



Monmouth University students equipped to collect water samples on the Bay, head out on the Little Hawk for a days work.

MU Environmental Club Going Green by the Big Blue



Two year old Kira Estrada and her grandfather Edward Estrada (Middletown) help clean up the Long Branch beach at Pier Village with senior student and President of the Environmental Club at Monmouth University, Zoe Shaheen.

Tony MacDonald, UCI Director and advisor to MUEC, leads students in clean up efforts. Such events result in direct environmental purification and broadens public awareness to the impact humans have on beaches and ultimately the ocean. The group participated in beach clean up in April.



UCI, NJ Sea Grant and Seton Hall Law School Awarded Grant

UCI, NJ Sea Grant and Seton Hall Law School were awarded a \$10,000 grant from the National Sea Grant Law Center to fund a collaborative symposium: Legal and Policy Approaches to Support Regional Ocean Planning in New Jersey and the Mid-Atlantic. The Symposium will focus on identifying innovative legal and policy approaches that address timely and critical issues for New Jersey and the surrounding ocean region.



The Symposium will be held in the Spring of 2013 at Seton Hall Law School. The papers presented and proceedings will be published in a special edition of Sea Grant Law and Policy Journal.

The intensity of human influences on the ocean environment continues to increase, creating a new generation of challenges that is growing in urgency. The grant will provide a forum where ocean planning and policy will be addressed.

Monmouth Establishes New Global Sustainability Minor

The new Global Sustainability Minor is designed to be accessible and complementary to students studying natural sciences, political science, public policy, social work, health studies, communications, business, and economics, and to any student that is interested in expanding their ability to analyze critical issues facing our society in a multidisciplinary way.

Students pursuing this interdisciplinary minor will examine:

- The environmental, social, and economic foundations of sustainability.
- The policy and scientific challenges involved with accommodating population growth, public health and development needs, and resource use, while assuring that future generations will have the natural and economic resources that support an enhanced quality of life.
- The scientific and policy efforts needed to optimize the management of environmental, economic, and social resources.
- Key indicators that can be used to measure sustainability within different disciplines.
- The roles of governments, markets, and civic organizations in taking actions toward sustainability.
- The application of sustainable practices in both a local and global context.

In the Fall of 2011, the UCI Director, Tony MacDonald co-taught a new class - Introduction to Global Sustainability with Assistant Professor of Biology, Pedram Danesghar. The UCI Assistant Dean John Tiedemann, will serve as the Program Director.

Monmouth University honors President Paul G. Gaffney II

Monmouth University honored President Paul G. Gaffney II at a black tie dinner on April 28, 2012. Gaffney plans to retire on June 30, 2013 after ten years of service. Well-wishers and supporters gathered to speak about the President's achievements and contributions to the University.

Pictured from left are Dr. Tavitt Najarian, Co-Chair of the UCI Advisory Committee, Dr. Walter Munk, Research Professor Emeritus of Geophysics, Scripps Institution of Oceanography, and Tony MacDonald, UCI Director.

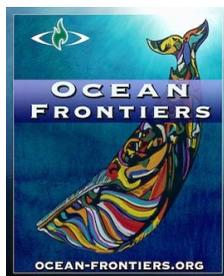


film premiere

UCI Hosts Ocean Frontiers Film Premiere

On Thursday, April 5, UCI hosted the New Jersey premiere of the film *Ocean Frontiers: The Dawn of a New Era in Ocean Stewardship*. Following a welcome by Monmouth University President Paul G. Gaffney II, over 100 students, professors, renewable ocean energy proponents, fishermen, conservationists, and the community joined to watch the film.

A panel discussion moderated by UCI Director Tony MacDonald included Kris Ohleth, Director of Permitting, Atlantic Wind Connection; Cindy Zipf, Executive Director of Clean Ocean Action; Dr. Dennis Suszkowski, Science Director, Hudson River Foundation and adjunct professor at Monmouth University; and Sharon McKenna, Education and Special Events Coordinator, Viking Village. Ocean Frontiers illustrates how collaboration and shared approaches to ocean stewardship can generate solutions that support sustainable ocean use, conservation and economies. For more information on the film, go to www.ocean-frontiers.org or www.monmouth.edu/urban_coast_institute.



National News

Senate Appropriation Committee Approves Funding for Howard Sandy Hook Lab

With support from New Jersey Senators Lautenberg and Menendez, the Senate Appropriations approved a bill that would provide funding for continued operation of the National Oceanic and Atmospheric Administration (NOAA) James J. Howard Marine Sciences Laboratory at Sandy Hook. President Obama's proposed FY-2013 budget had proposed eliminating the Lab's funding. As a member of the Commerce, Justice and Science (CJS) Appropriations Subcommittee, Senator Lautenberg secured the inclusion of language to prohibit closure of the Sandy Hook lab in the Senate FY 2013 CJS Appropriations bill, which funds NOAA.

The bill will need to go to the full Senate. The House has not yet dealt with the matter, and Congress is unlikely to address a final budget until after the November election. Currently, the Howard Lab houses several unique research facilities, including 11 seawater labs, a 32,000 gallon aquarium and a 49-foot research vessel. It supports nearly fifty employees and performs research on maintaining healthy fisheries and protecting the ocean environment from the impacts of climate change.



Coastal habitat restoration is a strategic way to reduce the impacts of climate change.

Restore America's Estuaries Releases Climate/Coastal Habitat Restoration Report

Restore America's Estuaries (RAE) recently released a report that links ecologically important coastal habitat restoration with adaptation and mitigation strategies as a way to reduce the impacts of global climate change. The report, "Restore-Adapt-Mitigate: Responding to Climate Change through Coastal Habitat Restoration," examines the current state of U.S. coasts and likely effects of climate change on those coasts. The report also discusses why coastal habitat restoration is essential to climate change adaptation and mitigation, and includes new findings that indicate that coastal tidal wetlands are efficient carbon sinks for greenhouse gases.

State News

NJDEP Public Access Rule Proposed

The NJ DEP proposed amendments to the Public Access Rule were published on April 4, 2011 (New Jersey Register at 43 N.J.R. 772(a).) NJ DEP has held a series of public hearings on the proposed changes. A third public hearing is scheduled Monday, May 23 2012 at 1:00 P.M., Seaside Heights Municipal Court House, 2nd Floor Court Room 116, Sherman Avenue, Seaside Heights, New Jersey 08751. A copy of the proposal is available from the Department's website at www.state.nj.us/dep.

Coastal Community Vulnerability and Resilience to Sea Level Rise

UCI partnered with the NJ Coastal Management Office (CMO) and the New Jersey Sea Grant Consortium to pilot a Coastal Community Vulnerability Assessment Protocol (CCVAP), which is intended to be a mapping tool that allows communities to assess their geographic, environmental and social vulnerability to the impacts of storm surge and sea level rise. The UCI also assisted the NJCMO in development of a Getting to Resilience Questionnaire (GTR) designed to assist local governments to characterize their existing municipal plans and identify opportunities to respond to the impacts of coastal hazards, storm surge and sea level rise. The final reports for the pilot projects are available on the NJDEP website. For a copy of the pilot study reports see: www.nj.gov/dep/cmp/docs/ccvap-pilot-final.pdf, and <http://www.nj.gov/dep/cmp/docs/gtr-resilience.pdf>.

faculty profile



Dana Ehret joined the UCI faculty as Lecturer in the Fall of 2011. He is presently teaching Introduction to Biodiversity and Evolution. His research specializes in vertebrate paleontology, paleobiology, herpetology, and wildlife conservation. He came to Monmouth University after finishing his Ph.D. at the University of Florida, but is a New Jersey boy born and raised in Point Pleasant. His research interests include the evolution of white and mako sharks during the Miocene and Pliocene (23 – 3.6 million years ago) Epochs. Dr. Ehret is also interested in the evolution and biology of North American turtles including the map turtles, box turtles and the diamondback terrapin. In addition to working with their fossils, this summer Dr. Ehret will also be initiating a diamondback terrapin conservation project in the Navesink and Shrewsbury Rivers in Monmouth County, NJ. This program will include undergraduate students as part of the Monmouth University School of Science Summer Research Program, where they will be catching and marking turtles for conservation studies.

UCI Co-Hosts Colloquium: A Pinelands Conversation with Governor Brendan Byrne

On April 26th, the UCI along with the Political Science Club, and the Master of Arts in Public Policy Graduate Program co-sponsored a Colloquium with Governor Brendan Byrne. Governor Byrne was joined by Carleton Montgomery, Executive Director of the Pinelands Preservation Alliance. Gov. Byrne served as the 47th Governor of New Jersey from 1974 to 1982. During the Governor's administration a ground-breaking framework for defining and managing the New Jersey Pinelands was established. Had it not been for the preservation of this place of unique plant life, rare pitch pines, and water purifying functions, the Pinelands might have been developed into a supersonic jetport and city of 250,000 people.





UCI News

UCI Director Joins the Board of New York | New Jersey Baykeeper and The Coastal Society

UCI Director Tony MacDonald has joined the Board of Directors for the New York/ New Jersey Baykeeper and The Coastal Society. The Baykeeper's mission is to protect, preserve, and restore the ecological integrity and productivity of the Hudson-Raritan Estuary - one of the nation's most productive urban estuaries. The Coastal Society is an international organization of private sector, academic, and government professionals and students. The Society is dedicated to actively addressing emerging coastal issues by fostering dialogue, forging partnerships, and promoting communication and education.

Water Quality Monitoring

The UCI continues to operate 8 real time water quality monitoring sites in coastal NJ. The data is being used by NJDEP and USGS for modeling efforts related to Barnegat Bay. Through a grant from the Barnegat Bay Partnership, the Barnegat stations were upgraded to Dissolved Oxygen (DO) and additional spare parts were purchased. UCI recently received a donation from Mr. Sandy Huntsman, Monmouth alumnus, to support operations of the Navesink River monitoring station.

Coastal Lakes

The UCI has continued to work with the City of Long Branch and the Whale Pond Brook Watershed Association on a variety of activities. These include an ongoing water quality sampling program at 6 locations, extensive mapping and dredge volume calculation survey of Takanassee Lake and Whale Pond Brook, and clean up and restoration work on Ross Island. The UCI is also working with the American Littoral Society to plan a second Coastal Lakes Summit that will be held in the late summer or early fall 2012. The Summit will highlight the 'best practices' of

towns, lake commissions, Monmouth County and NJ DEP in efforts to restore coastal lakes in Monmouth and Ocean County.

Marine Field Methods Course

UCI Marine Scientist Jim Nickels has developed a summer course in Marine Field Methods. The course is a mix of lectures and "hands-on work" aboard UCI vessels. Activities included GPS surveying and mapping, trawling and electro shocking, and culminates with a trip on our vessel around Manhattan and the Kills. This course presents an opportunity for MEBP and other students to gain valuable real world experience and enhance their skills in working with field equipment and methods.



Jim Nickels assists student Katie Markowitz with the Video Ray, a data collection device, at the Monmouth University Pool.

UCI Installs GPS Monitoring Station on Roof of Howard Hall

With support from Maser Consulting and KeyNetGPS, the UCI recently installed and activated a GPS Continuously Operating Reference Station (CORS) on the roof of Howard Hall. This location is part a network of 192 stations in the Mid -Atlantic and North East that provide high precision GPS reference data for RTK GPS rovers. This new station will benefit the UCI by providing a reference station in close proximity to our normal work areas.

Tony MacDonald
Director

Jim Nickels
Marine Scientist

Lorraine Jordan
Administrative Assistant

Lauren Fitton
Research Assistant

Yunmi Zaccarro
Research Assistant

Urban Coast Institute
Monmouth University
400 Cedar Avenue
W. Long Branch, NJ 07764

732-263-5662
fax 732-263-5723
www.monmouth.edu/urban_coast_institute



save the date

**8TH ANNUAL
FUTURE OF THE
OCEAN SYMPOSIUM
& OCEAN AWARDS
LUNCHEON**



FRIDAY, OCTOBER 26, 2012

National Ocean Champion Professor Jesse H. Ausubel
Director of Program for Humans in the Environment at The Rockefeller University and Vice President for Programs of the Alfred P. Sloan Foundation in NYC

Mr. Ausubel initiated the Census of Marine Life, an international observational program to assess and explain the diversity, distribution, and abundance of life in the oceans. He is recipient of the 2010 Blue Frontier/Peter Benchley prize for ocean science, and the International Cosmos Prize for harmony between nature and humanity in 2011.

Symposium speakers and other award winners will be announced. Symposium is free and open to the public. Luncheon tickets are by reservation only. For more information see www.monmouth.edu/urban_coast_institute.

Wilson Hall of Monmouth University