

## News Items – June 2016

The following news items have been forwarded to share for June. Although shortened in some cases to fit the overview format of this communication, these are being provided essentially as received. Thank you for your willingness to share the great work being done over the past month in Marine and Coastal Studies at UNCW!

### **Outreach, Service, Recognitions:**

- The Pawlik lab (Biology and Marine Biology) has posted a short video showing a submarine vertical transect that goes from 610 m (2000 ft) to the surface off NW Roatan Island, Honduras, Caribbean Sea. If you teach a component on the deep sea, this may be useful.  
<https://youtu.be/4F3XQeWs4V8>
- Bonnie Monteleone (Chemistry and Biochemistry) was interviewed on WHQR's Coastline regarding her work with plastics in the ocean ("Coastline: Ocean plastic is beyond garbage patches and part of human food chain").
- Jay Styron (CMS) and Troy Alphin (Biology and Marine Biology / CMS) were interviewed by WCET regarding oyster aquaculture in North Carolina and the benthic lab oyster siting tool. Troy and the NC oyster siting tool were also featured in the Wilmington Business Journal.

<http://www.wcet.com/story/32265546/online-tool-helps-promote-wilmington-shellfish-industry>

- Troy Alphin, Fred Scharf and Martin Posey (Biology and Marine Biology / CMS) presented to a subcommittee of the Marine Fisheries Commission on a new program to fund internships for UNCW students to work with Division of Marine Fisheries' staff to address ongoing issues. The initial 3-year effort is hoped to become a longer term opportunity for our coastal and marine students.
- Rob Condon (Biology and Marine Biology) was interviewed by TWC News regarding jellyfish populations.

<http://www.twcnews.com/nc/coastal/news/2016/06/9/sea-lice-not-an-issue-in-north-carolina.html>

- Mike Mallin (CMS) was interviewed by the Raleigh News and Observer regarding the General Assembly legislative proposal to treat Lake Jordan's eutrophication problems through additions of mussels.
- UNCW participation in Eli Lilly's unique Open Innovation Drug Discovery (OIDD) program, which streamlines the process of identifying potentially useful new substances, was highlighted in the Wilmington Business Journal. The article was provided by Dan Baden (Chemistry and Biochemistry / MARBIONC) and summarized work from biologists and chemists (including Baden, Eitelmann, Fontana, Morgan, Palmer, Vetter, others).

[http://www.wilmingtonbiz.com/insights/daniel\\_g\\_baden/uncw\\_chemists\\_work\\_with\\_pharmaceutical\\_company\\_to\\_help\\_develop\\_potential\\_medicines/1275](http://www.wilmingtonbiz.com/insights/daniel_g_baden/uncw_chemists_work_with_pharmaceutical_company_to_help_develop_potential_medicines/1275)

- UNCW collaborated with the NC Aquarium at Fort Fisher to bring OCEARCH to the region as part of an effort to tag sand tiger sharks. Fred Scharf's (BMB) graduate student, Madeline Marens, was the lead on the science team. She is also an aquarist at Fort Fisher.

<http://www.wect.com/story/32227030/nc-aquariums-and-ocearch-partner-for-shark-research>

- Center for Marine Science Marine Operations assisted with the filming of a documentary on the Gulf Stream. Personnel involved included Steve Hall, Ken Johns and Wilson Freshwater.
- Wilson Freshwater (CMS) traveled to Bocas del Toro, Panama to work on the NSF funded ARTS project: Integrative Research and Training in Tropical Taxonomy.

- Earth and Ocean Sciences (EOS) student, Janardan Mainali was featured in the UNCW WE ARE NOW section of the UNCW webpage.

<http://uncw.edu/profiles/Janardan%20Mainali.html>

- Roger Shew (EOS) received the *North Carolina Outstanding Earth Science Educator Award for 2016 from the NC Science Teachers Association*
- Earth and Ocean Sciences student recognitions:
  - Audrey Taylor (BA GGY) selected as UNCW nominee for the 2016 NCHC Portz Scholar award offered by the National Collegiate Honors Council.

- Scott Adams (\$1408) and Robert O'Donnell (\$1700) both received Geological Society of America student grants. Scott also received \$250 from the Cushman Foundation for foraminiferal research.
- Will Abrams (MS GEO) received a \$1000 scholarship from the North Carolina ArcGIS Users Group
- Renee Pelletier Graduate student, received the GSA - Alexander Sisson Research Award (Awarded: \$3,135)

## Publications:

- Susanna Lopez-Legentil and Patrick Erwin (Biology and Marine Biology):  
Torsten Thomas, Lucas Moitinho-Silva, Miguel Lurgi, Johannes R. Bjork, Cole Easson, Carmen Astudillo-Garcia, Julie B. Olson, Patrick M. Erwin, Susanna Lopez-Legentil, Heidi Luter, Andia Chaves-Fonnegra, Rodrigo Costa, Peter J. Schupp, Laura Steindler, Dirk Erpenbeck, Jack Gilbert, Rob Knight, Gail Ackermann, Jose Victor Lopez, Michael W. Taylor, Robert W. Thacker, Jose M. Montoya, Ute Hentschel & Nicole S. Webster. 2016. Diversity, structure and convergent evolution of the global sponge microbiome. Nature Communications. | DOI: 10.1038/ncomms11870.  
  - this paper is the result of a huge collaborative effort that has involved 24 researchers from 8 different countries
- Wilson Freshwater (CMS):  
Boo, G.H., L. Le Gall, K.A. Miller, D.W. Freshwater, T. Wernberg, R. Terada, K.J. Yoon & S.M. Boo. 2016. A novel phylogeny of the Gelidiales (Rhodophyta) based on five genes including the nuclear *CesA*, with descriptions of *Orthogonacladia* gen. nov. and Orthogonacladiaceae fam. nov. *Molecular Phylogenetics and Evolution* 101:359-372. <http://dx.doi.org/10.1016/j.ympev.2016.05.018>.  
  - This paper resulted in part from a visit to Freshwater's lab by Dr. Sung Min Boo in the summer of 2012 (science moves fast).
- Andrea Hawkes (Earth and Ocean Sciences):  
Hawkes, A., Kemp, C., Donnelly, J., Horton, B., Peltier, W., Cahill, H. Hill D., Ashe, E. and C. Alexander. 2016. "Relative sea-level change in northeastern Florida (USA) during the last ~8.0 ka" *Quaternary Science Reviews*, v. 142, p. 90-101.
- Susanne Brander (Biology and Marine Biology):  
Bryan J. Cole, Susanne M. Brander, Ken M. Jeffries, Simone Hasenbein, Guochun He, Michael S. Denison, Nann A. Fanguie, Richard E. Connon. May 2016. Changes in *Menidia beryllina* Gene Expression and In Vitro Hormone-Receptor Activation After Exposure to Estuarine Waters Near Treated Wastewater Outfalls. [Archives of Environmental Contamination and Toxicology](#) pp 1-14

**Grants:**

- Dr. Lynn Leonard (EOS/CMS) and Jennifer Dorton (CMS) received funding for the project “Southeast Coastal Ocean Observing Regional Association (SECOORA): Supporting Resilient Ecosystems, Communities and Economies”. UNCW will receive \$365,000 per year for the next five years to maintain and provide real-time and non-real time ocean observations and support development of data products for scientists, marine resources managers and policy makers, and the general public. This award is part of a \$2 million annual award to SECOORA from the NOAA Integrated Ocean Observing Office that is distributed amongst universities, private sector, and agency partners in NC, SC, GA and FL.
- Aswani Voley (Biology and Marine Biology / CAS) and Ai Ning Loh (EOS) were funded for “Monitoring and Assessment Plan: Oyster Health and abundance in the Caloosahatchee Estuary, Florida”. \$49,642
- David Webster (Biology and Marine Biology) was funded for “Endangered species monitoring on Figure Eight Island, N.C.” \$19,444
- Mike Durako (BMB) was funded for “Can variability in water quality monitored by SFWMD be linked to recent changes in macrophyte community dynamics at South Florida Fisheries Habitat Assessment Program (FHAP-SF) permanent transect monitoring stations.” \$43,500.
- The NCNERR, in collaboration with the North-Inlet Winyah Bay National Estuarine Research Reserve in South Carolina, has been awarded a transfer grant through the NERRS Science Collaborative for the 2016-2018 cycle. The project, “Creating a shared understanding of the specific vulnerabilities of southeastern coastal habitats to climate change impacts” includes implementation of the Climate Change Vulnerability Assessment Tool for Coastal Habitats. Developed by the NERRS for use by land managers, decision-makers, and researchers, this tool utilizes a facilitated expert elicitation process to assign vulnerability scores per habitat based on exposure-sensitivity and adaptive capacity. The NCNERR will be inviting local researchers to participate in this project based on areas of expertise needed as the NC portion is implemented. Contact Hope Sutton (suttonh@uncw.edu) for more information or if you have interest in participating.

## **CMS and Partners:**

- **WELCOME Crystal Helms!!!** Crystal will be starting as Executive Assistant on 5 July, joining our great front office team. Crystal has been at UNCW since 1997. She most recently served as an Executive Assistant in the Cameron School of Business Dean's Office. Prior to that she worked in the Department of Accounting, Purchasing Services, and the Department of Earth Sciences.
- NCNERR seasonal biological monitoring activities are well underway. Volunteers (including staff using community service leave, as approved by supervisors) can still be accommodated to assist with daily sea turtle nest monitoring activities. Contact Mellissa at [ncnerr.volunteering@gmail.com](mailto:ncnerr.volunteering@gmail.com) to sign up.
- Almost 70 people came to the June social and dip contest. Thanks to the office team for organizing this get together (especially Erin and Brittani!!) and to everyone for a great chance to meet, talk, and see what's going on.
- When you have a chance, take a look at the new coastal and marine science portals established by OUR under the Academics and Research pages of the UNCW website. As discussed at our April CMS faculty meeting, these are designed to provide easier access and higher profile to UNCW's various coastal and marine programs for visitors to our website. They also show the breadth of programs involved with coastal and marine work. Please let Martin Posey know if you have any corrections, suggestions for updates, or suggested changes to this initial effort. Thanks to OUR for providing this!
- Save the date: We are tentatively planning a CMS and Colleagues faculty meeting on Monday, 29 August, from 4-5:30 in the CMS auditorium. This will be a working meeting where we hope to discuss a variety of initiatives as well as planning and policies. We hope to have some informal time together afterwards. More details to come.
- If you may be hosting a visiting researcher who may want to use the CREST campus house, please contact Brittani.
- The Undersea Vehicles Program has just returned from back to back missions. They spent 8 operational days in the Philippines at Benham Rise collecting 16 hours of video with our Phantom S2 ROV system and over 2,000 digital stills. They then completed 8 operational days aboard the NOAA ship Pisces along the East Coast Marine Protected Areas collecting over 39 hours of HD Video and over 2700 digital stills with their

Mohawk ROV system. Please see their facebook page for digital documentation:  
<https://www.facebook.com/UNCWUnderseaVehiclesProgram>

- SPARC and OIC days at CMS: Beginning the week of July 11<sup>th</sup>, SPARC will increase their support of CMS in Room 1121-8. Proposal development support will be provided by M.J. West every Tuesday from 9 – 3 pm. Please stop in to discuss your intentions to submit a proposal or work through your proposal issues or email her at [westmj@uncw.edu](mailto:westmj@uncw.edu) to make an appointment. Patty Fox will continue to be at CMS each Thursday for any post award items. The Office of Innovation and Commercialization will have varied hours on Monday, Wednesday and Friday. An announcement will be coming in early August on their times.
- Fume Hood Improvement Project  
New airflow monitors have been installed in the fume hoods at CMS. Under normal, safe operating conditions, the monitors are silent and display a solid green light. An audible alarm and flashing red light indicate low or high flow and potentially unsafe conditions. The mute button will temporarily silence the alarm, but it will sound again if the problem is not resolved. If the alarm continues to sound, close the sash, contact maintenance for repair and EH&S at 962-3057 to verify flowrate. **For normal operation, open no more than two sliding panels OR close the panels and raise the sash no more than 18 inches. A wide open sash is for loading only. Please do not attempt to disable the monitor; it is there to alert you to an unsafe flow condition.**
- Now that we are in the midst of another busy research season, it is useful to remember workman's comp procedures if someone employed in your work is injured:  
<http://www.uncw.edu/hr/benefits-comp.html>
- MBCOI News.
  - The Marine Bio-Technologies Center of Innovation ([MBCOI](#)) and the Southeastern Office of the NC Biotechnology Center ([NCBiotech SE](#)) are participating in the [BioMarine Business Convention](#) in Oslo, Norway from 19-21 October, 2016, as White Pearl Sponsors. This year's program consists of panels, workshops, and investment track opportunities, and features topics such as **harvesting the potential of marine natural ingredients, breeding better fish species, new potential for byproducts, economic modeling of offshore aquaculture**, and much more. If you would like MBCOI and NCBiotech SE to represent your field of interest, please contact Deb Mosca at [dmosca@mbcoi.net](mailto:dmosca@mbcoi.net). Details of the agenda can be found at: <http://www.biomarine.org/oslo2016/program/>

- **Sandbar** Oyster Co. was recently awarded an **NCIDEA** grant to help the company achieve its goal of providing **high quality oysters for consumer markets and bulk oysters for habitat restoration, shoreline protection, water quality enhancement** and more. As a sub-awardee on the grant, MBCOI will provide business development and market research services, and will continue to support Sandbar in its mission to grow the company.
- **NCSU-CMAST** was recently notified that the Biotechnology Innovation Grant (**BIG**) proposal submitted to the North Carolina Biotechnology Center on Using **Oyster Reef Soundscapes to Enhance Oyster Larval Settlement Under Commercial Hatchery Conditions** will be funded in full with contingencies. As a sub-contractor in the role of Commercialization Advisor, MBCOI will facilitate preliminary patent landscape analyses, assess market opportunities, and develop a business case for commercialization, market deployments, and marketing and communications. NC SeaGrant and MBCOI are sub-awardees on the grant.