

UNCW

Coastal & Marine

February 2017

Science News

A note from the director of CMS, Dr. Martin Posey:

It is hard to believe that spring break is already over and we are halfway through the semester! Sincere thanks to the many folks who have been working with the self-study and participating in the research collaboratives. There has also been considerable activity involved with grant development as well as various conferences and regional meetings planned for both the CREST campus and elsewhere over the coming months. Please let us know how we can help with your research support, student mentoring, or outreach efforts. - Martin

Outreach, Recognitions, & Other Notables

- ◆ **Planet Ocean Seminar:** On February 7th Dr. Mark Luckenbach (Virginia Institute of Marine Science, College of William and Mary) presented on Oysters in Chesapeake Bay: A Thirty-Year Retrospective on the Path to Recovery. We had over 115 attendees and there were some great discussions about restoration efforts.
- ◆ From Larry Cahoon (Biology and Marine Biology): Larry just returned from two weeks in New Zealand, where he worked as a consultant for Trans-Tasman Resources, LLC, which is proposing to mine iron sands off the southwest coast of the North Island in New Zealand's EEZ. Larry was specifically asked to evaluate potential effects of mining activity on primary production by phytoplankton and microphytobenthos in the continental shelf ecosystem that would host this mining activity. This activity included presenting evidence to the NZ EPA's Decision Making Committee.
- ◆ From the MESA lab (BMB): They had their Israeli counterpart visit February 6 to the 10th as part of their Binational Science Foundation grant agreement (BSF 2014025: Hidden allies: The potential contribution of symbiotic microbes to the ecology and invasive potential of introduced ascidians). Co-PI of the grant Dr. Noa Shenkar, her master student Hila Dror and technician Lion Novak (Tel Aviv University) were most impressed by CMS facilities and Research activities.
- ◆ Scott Nooner's (EOS) work on the Axial Seamount was featured in [StarNews](#).
- ◆ Scott Baker (CMS, NC SeaGrant) was interviewed by the [StarNews](#) regarding the shrimping petition being considered by the NC Marine Fisheries Commission.

Outreach, Recognitions, & Other Notables

- ◆ Pat Donovan Potts, UNCW graduate, was featured in a [News and Observer](#) article on oyster habitat restoration.
- ◆ Elliott Weston, current Marine Biology MS graduate student, was highlighted in the [StarNews](#) for his starting business ventures.
- ◆ From Mike Mallin (CMS): Jade Burtchett, MMS 2016, (formerly of the Aquatic Ecology Lab at CMS) has been hired as an Environmental Specialist at the Florida Department of Environmental Protection.

Presentations & Publications

- ◆ Roger Shew (Earth and Ocean Sciences): Roger gave two talks:
 - ◇ The Atlantic Outer Continental Shelf Energy "Debate"; presented at the UNC-Charlotte EPIC (Energy Production and Infrastructure Center) Seminar Series on Energy Issues in the U.S. and North Carolina – February 14, 2017
 - ◇ Invited presentation at the Blue Heron Bowl on Blue Energy: Blue (Offshore) Energy: Above, Within, and Below the Water Column – February 17, 2017. Discussion topics were Wind, Waves, Tides, Currents, and Hydrocarbons providing the potential for each of them as well as the limitations and issues.
- ◆ Suzanne Brander (BMB): Goff, A.D., Saranjampour, P., Ryan, L.M., Hladik, M.L., Covi, J.A., Armbrust, K.L., Brander, S.M., in press. The effects of fipronil and the phtodegradation product fipronil desulfinyl on growth and gene expression in juvenile blue crabs, *Callinectes sapidus*, at different salinities. *Aquatic Toxicology*.
- ◆ Two new publicationjs from the MESA Lab (BMB) with other UNCW co-authors:
 - ◇ Marino CM, Pawlik JR, López-Legentil S, Erwin PM (2017) Latitudinal variation in the microbiome of the sponge *Ircinia campana* correlated with host haplotype but not anti-predatory chemical defense. *Marine Ecology Progress Series* 565: 53-66
 - ◇ Weigel BL, Erwin PM (2017) Effects of reciprocal transplantation on the microbiome and putative nitrogen cycling functions of the intertidal sponge, *Hymeniacidon heliophila*. *Scientific Reports* 7: 43247

Presentations & Publications

- ◆ From Andrea Hawkes (EOS):
 - ◇ Andrew C. Kemp, Alexander J. Wright, Robert L. Barnett, Andrea D. Hawkes, Dan J. Charman, Colby Sameshima, Alexandra N. King, Hailey C. Mooney, Robin J. Edwards, Benjamin P. Horton, and Orson van de Plassche. [Utility of salt-marsh foraminifera, testate amoebae and bulk-sediment \$\delta^{13}\text{C}\$ values as sea-level indicators in Newfoundland, Canada](#). 2017. Marine Micropaleontology. 130: 43-59
 - ◇ Mooney and King were undergrads at UNCW. We investigated the utility of foraminifera, testate amoebae and bulk-sediment $\delta^{13}\text{C}$ measurements for reconstructing Holocene relative sea level from sequences.

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- ◆ The Coastal and Marine Sciences Self-Study is ongoing. The FAC is overseeing the process and we hope to have a draft ready for faculty review in late March or early April with time for discussion at the 17 April Faculty and Staff meeting. Thanks to the many folks who are working hard on this review and planning effort!
- ◆ Ai Ning Loh (EOS), Amy Kirschke (Art and Art History) and Martin Posey (CMS) visited several universities to explore possible student exchanges as well as opportunities for research collaborations and faculty and graduate student interactions. Universities visited included Nanyang Technological University in Singapore, INTI International College in Malaysia, University Sains Malaysia Center for Marine and Coastal Studies in Malaysia, and Taylor's University in Malaysia.
- ◆ As you begin planning for summer research efforts, please let the appropriate CMS committees know if you have special research needs (e.g. temporary seawater space, boat needs, and other facility uses).
- ◆ For Students:
 - ◇ NC MarCo Consortium Graduate Student Symposium
 - Date: Friday, March 31, 2017; 10:00 AM – 9:00 PM;
 - Location: Duke University Marine Lab Campus, Beaufort NC
 - Attendees: All NC MarCo graduate students (PhD and Masters) are invited to present.
 - Lodging: Available upon request
 - Questions: Rebecca Smith, rebecca.s.smith@duke.edu

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- ◆ From Marine Quest: Welcoming MarineQuest's newest addition - Program Assistant Nina Sassano! Nina is a native to New Jersey where she was born and raised within a mile of the Atlantic Ocean. Being so near



to the shore, she was constantly exploring marine organisms and fostering a fascination with marine science, while sharing any new information she learned with just about anybody who would listen. She attended Stockton University and earned her bachelor's degree in Marine Biology. Upon completion of her degree, she knew she wanted to combine her natural ability to educate with her knowledge of science, so she began a term of service with the AmeriCorps NJ Watershed Ambassador Program. This program combined scientific research with public outreach, and trained Nina to excel in the field of environmental education. Nina then went on to hold some very different positions- a naturalist at a forestry center, an administrative assistant at a soil district, and a field technician for a National Estuary

Program, the Barnegat Bay Partnership. It was at the Barnegat Bay Partnership where Nina was first introduced to the sea nettle jellyfish research that she would continue to conduct for her master's research. In 2014 Nina moved to North Carolina to work in Dr. David Kimmel's lab at East Carolina University where she studied land-use effects on the populations of the stinging sea nettle, *Chrysaora quinquecirrha*, in North Carolina. Her research verified that the polyps of the sea nettle showed greatest survival on stainless steel, a material used in nearly all marine construction, thus providing a possible link to increased sea nettle presence with increased marine coastal construction. Nina joins MarineQuest after taking some time after the completion of her master's to travel to places including Iceland and Costa Rica. She is extremely honored and excited to be a part of the MarineQuest team, since she has always strove to include outreach in all of her research initiatives. As Program Assistant, Nina will be assisting in the development and implementation of activities and lessons for summer enrichment programs and school programs. She hopes to implement some new creative citizen science projects as well as some long term research initiatives for visiting school groups.

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- ◆ From MBCOI:
 - ◇ **UNC Clean Tech Summit, Chapel Hill, NC, March 2-3, 2017:** MBCOI's Dr Roy Carter is part of a panel discussion on "How the Revolution in Genomics is Improving our Food Security" moderated by John Salmeron, Director, Plant Sciences at Precision BioSciences.
 - ◇ **Fish 2.0, Wilmington, NC, March 15-17, 2017:** The countdown has begun for the Shellfish Regional Track Workshop at MARBIONC, where we will welcome participants from across the South Atlantic and Gulf Coast region, including a tour of UNCW's Oyster Hatchery.

- ◆ CMS is hosting a panel discussion as part of UNCW Presents, [The Nile Project](#):
 - ◇ **Monday, March 27th from 5:30pm to 7:30pm in the Auditorium** - The Nile Project producer and CEO, Mina Girgis, and CMS's research professors and educators explore the scientific and community implications of water quality-related issues in the Nile and the Cape Fear Rivers. The panel discussion begins at 6pm, preceded by a reception and graduate student poster presentations in the CMS lobby.

