

UNCW Coastal & Marine November 2017 Science News

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

Thank you to everyone for your support, energy, and enthusiasm during a very busy semester! Happy end of the semester and have a great winter break!!

- Martin

Outreach, Recognitions, & Other Notables

- ◆ Ann Pabst's and Bill McLellan's (Biology and Marine Biology) work on threats facing the right whale was featured in [Science](#) and [other outlets](#).
- ◆ Bill McLellan, Anne Pabst, and the UNCW Marine Mammal Stranding Network (BMB) were featured on ABC news as well as a number of [other media outlets](#) for their work with a stranded, injured sperm whale at Oak Island.
- ◆ UNCW GenX and related work:
 - ◇ Chris Dumas' (Environmental Sciences) work to study the economic impacts of GenX was featured in the [Greater Wilmington Business Journal](#).
 - ◇ Larry Cahoon (BMB) was featured in a [StarNews](#) article and by [WECT](#) News regarding the possibility of related chemicals in the Cape Fear and Wilmington's drinking water. [WHQR](#).
 - ◇ Chris Dumas' (EVS) participation in the UNCW GenX forum, along with other UNCW researchers, was featured by the [StarNews](#).
- ◆ Elliot Gunning (EVS student), Lee Maudlin (EVS alum), and Scott Davis were winners of the Hult Prize competitions and advance to Boston.
- ◆ The Undersea Vehicles Program (CMS) was featured for their work with [Greenpeace](#) in exploring the Snowy Grouper Wreck Marine Protected Area off the coast of Hatteras Island.
- ◆ James Rotenberg's (EVS) work using drones to observe Harpy eagles in Belize was featured in [StarNews](#).
- ◆ Mike Mallin (CMS) was interviewed by Allison Ballard, Coastal Review On-Line, on BMP functioning at Wrightsville Beach, N.C.

Outreach, Recognitions, & Other Notables

- ◆ Dr. Jim Herstine (Health and Applied Human Sciences), Dr. Chris Dumas (EVS), and Dr. Alexia Franzidis (HAHS) presented on “Evaluation and Economic Impact of the NC Public Beach and Coastal Waterfront Access Program” to the [NC Coastal Commission](#). This work was also covered by the [StarNews](#).
- ◆ Work by Chuck Weirich (N.C. Sea Grant marine aquaculture specialist), Ami Wilbur (BMB and Shellfish Research Hatchery), Troy Alphin (BMB), collaborators from Carteret Community College, as well as private growers was featured at the [Crystal Coast Oyster Festival](#). Oysters from the project were made available to attendees.
- ◆ Stuart Borrett (BMB) was featured in the Cape Fear Faces [photo feature](#), which introduces someone from the region each week.

Presentations

- ◆ Presentations from the IMESA Lab (BMB):
 - ◇ Evans J, López-Legentil S, Erwin PM (2017) Comparing the efficiency of two common DNA extraction kits in the characterization of microbial symbiotic communities from ascidian tissue. American Society for Microbiology – North Carolina Branch Annual Meeting, Raleigh, NC.
 - ◇ Moitinho-Silva L, Steinert G, Nielsen S, Hardoim CC, Wu Y, McCormack GP, López-Legentil S, Marchant R, Webster N, Thomas T, Hentschel U (2017) Predicting the HMA-LMA status in marine sponges by machine learning. 29th Brazilian Meeting in Microbiology, Foz do Iguassu (Brazil).
 - ◇ Gantt SE, McMurray SE, Stubler AM, Finelli CM, Pawlik JR, Erwin PM. Microbial symbionts and carbon cycling in Caribbean coral reef sponges. American Society for Microbiology - North Carolina Branch Annual Meeting, Raleigh, NC .
- ◆ Chris Dumas (EVS faculty) (2017). Economic Value and Economic Impacts of North Carolina’s Public Beach Access Program" Southern Economics Association annual meeting.
- ◆ Allison Stewart (MARBIONC). “Metabolomics of Cyanobacterial Harmful Algal Blooms: Rapid Access to Metabolite Profiles and Identification of New Chemistry” oral presentation at the 9th US HAB Symposium in Baltimore, Maryland.

Presentations

- ◆ Rachel Sullivan (EVS student), & Pricope, N. (EOS) (2018). Presentation at the American Association of Geographers in New Orleans.
- ◆ Roger Shew (Earth and Ocean Sciences). Planet Oceans Seminar, “From the River to the Deep Blue Sea: A Summary of the Ocean Economy and Benefits and Issues of Energy Exploitation.”
- ◆ Roger Shew (EOS). Osher Lifelong Learning Talk: “Southeastern NC Treasures and Stressors: A Discussion of Water, Ecosystems, and the Coast.”
- ◆ Roger Shew (EOS). Global Marine Summit: Poster on “Nuisance Flooding: Controls and Impacts.”
- ◆ Roger Shew (EOS). Global Marine Summit Post-Meeting Field Trip: Cape Fear River and Kure Beach: History and Issues in the Lower Cape Fear Region.
- ◆ Elizabeth Darrow (CMS) was invited to give a presentation at the Southeastern Ocean Acidification Network North Carolina Stakeholder Workshop in Morehead City, NC. “Biological impacts of ocean acidification in North Carolina.”
- ◆ Benthic Ecology Lab student presentations:
 - ◇ Madison Lytle, Elizabeth Darrow, Susanne Brander, Martin Posey and Troy Alphin. “ Impacts of oyster structures (reefs and culture operations) on adjacent benthic community assemblages.” Presentation at the 2017 CERF conference. (BMB, CMS).
 - ◇ Ed Arb, H. Thurlow, J. Brittain, A. Johnson, J. Wu, J. Tresca, Gardner, T. Alphin, F. Scharf and M. Posey “Relative Utilization of Shallow Water Estuarine Habitats by Juvenile Finfish in the Cape Fear Estuary”. Presentation at the 2017 CERF conference. (BMB and CMS).
 - ◇ Sarah Eure, T. Alphin, E. Ghoneim and M. Posey “Development and Implementation of the GIS based NC Shellfish Siting and Suitability Tool” Poster presentation at the UNCW Global Marine Summit. (EOS, BMB, CMS).
 - ◇ Hannah Thurlow, E. Arb, J. Brittain, A. Johnson, J. Wu, J. Tresca, Gardner, T. Alphin, F. Scharf and M. Posey. Importance of estuarine habitats for juvenile finfish. Poster presentation at the UNCW Global Marine Summit. (BMB, CMS).
- ◆ Ariel Potter, J Jarvis, T. Alphin, and E. Arb “Interactions between seagrass meadows and oyster aquaculture in North Carolina”. Presentation at the 2017 CERF conference. (BMB).

Presentations

- ◆ Elizabeth Darrow, Susanne Bricker, Brandon Puckett, Susanne Brander, Troy Alphin, and Martin Posey. “At what cost? Ecosystem services of shellfish aquaculture in an estuarine reserve” Presentation at the 2017 CERF conference. (BMB, CMS, NOAA, NCERR).
- ◆ Jessica Carlton, E. Darrow, T. Alphin, S. Brander, B. Puckett, and M. Posey “Effects of new oyster cultivation on sediment characteristics within Masonboro Island, NC”. Presentation at the 2017 CERF conference. (BMB, CMS, NCNERR).
- ◆ Patricia Kelley (EOS), “Why We Need Conservation Paleobiology: Just Ask Johnny Depp” presented at Slippery Rock University on November 15, as well as “The Arms Race from a Snail’s Perspective: Evolution of the Naticid Gastropod Predator-Prey System” at Pittsburgh Geological Society the same day.
- ◆ Bonnie Monteleone (Chemistry and Biochemistry) ; Engaging Citizens in the Science of Plastic Marine Debris Research; UNCW Department of Chemistry and Biochemistry Seminar Series.

Publications & Grants

- ◆ IMESA lab publications (BMB):
 - ◇ Moitinho-Silva L, Nielsen S, Amir A, Gonzalez A, Ackermann GL, Cerrano C, Astudillo-Garcia C, Easson C, Sipkema D, Liu F, Steinert G, Kotoulas G, McCormack GP, Feng G, Bell JJ, Vicente J, Björk JR, Montoya JM, Olson JB, Reveillaud J, Steindler L, Pineda MC, Marra MV, Ilan M, Taylor MW, Polymenakou P, Erwin PM, Schupp PJ, Simister RL, Knight R, Thacker RW, Costa R, Hill RT, Lopez-Legentil S, Dailianis T, Ravasi T, Hentschel U, Li Z, Webster NS, Thomas T (2017) The sponge microbiome project. *GigaScience* 6(10): 1-7.
 - ◇ Gewing M-T, López-Legentil S, Shenkar N (2017) Anthropogenic factors influencing invasive ascidian establishment in natural environments. *Marine Environmental Research* 131: 236-242.
 - ◇ Villalobos MS, Lambert G, Shenkar N, López-Legentil S (2017) Distribution and population dynamics of key ascidians in North Carolina harbors and marinas. *Aquatic Invasions* 12(4): 447-458.
- ◆ Heinlein, Bracy (EVS student) (2017) NC Trappers Association (NCTA) Furbearer Grant. \$1000.
- ◆ Conti-Jerpe, IE, Freshwater DW (2017) *Hedera caerulescens* (Alcyonacea : Alcyoniidae), a new genus and species of soft coral from the temperate North Atlantic: invasive in its known range? *Invertebrate Systematics* 31: Online Early doi: [dx.doi.org/10.1071/IS16069](https://doi.org/10.1071/IS16069). (CMS and BMB)
 - ◇ This paper resulted from a side project carried out by former Biology & Marine Biology masters student Conti-Jerpe that was made possible by piggy-backing on CMS pilot project funded ship time and other CMS Marine Operations scientific diving projects.

Publications & Grants

- ◆ Rushing, C. S., Hostetler, J. A., Sillett, T. S., Marra, P. P., Rotenberg, J. A. (EVS) and Ryder, T. B. (2017). Spatial and temporal drivers of avian population dynamics across the annual cycle. *Ecology*, 98: 2837–2850. doi:10.1002/ecy.1967.
- ◆ Long, Amy (EVS faculty), & Hendricks, Nick (EVS student) (2017) eTEAL award. “Hydrocarbon Analysis of Bluethenthal Wildflower Preserve and Surrounding Aquatic Habitats.” \$3170
- ◆ The Benthic Lab (BMB and CMS) received funding for a Project titled “Monitoring of oyster reefs created by the Audubon Society to enhance American Oystercatcher (*Haematopus palliatus*) populations in the Cape Fear Region”.
- ◆ The University of North Carolina Wilmington is working on several projects to research GenX, now that funds have been made available through a law passed this month. [Wilmington Business Journal](#).

CMS & Partners

- ◆ Earlier this month, UNCW hosted its first [Global Marine Science Summit](#) at CMS. We had representatives from approximately 17 countries participate with almost 100 attendees. Several outcomes, including specific international partnerships, were discussed. Thank you to the large number of faculty, students, and staff who helped make this event a success!
 - ◇ The summit was featured by [Greater Wilmington Business Journal](#) and the Consortium for Ocean Leadership Ocean News Weekly.
- ◆ Marine Quest:
 - ◇ MarineQuest was float number 47 in the Wilmington Holiday parade! They built a 13 foot humpback whale with over 2000 Christmas lights and plastic bags. The theme behind the whale was “marine debris is a whale of a problem.” They won second place in their category!
 - ◇ This year MarineQuest will again be hosting the Blue Heron Bowl. The MarineQuest team and Dr. Jessie Jarvis will be coordinating the event. In preparation we are looking for sponsors and volunteers. Faculty, staff, and students interested in volunteering should fill out the form [here](#).