

# UNCW Coastal & Marine September 2016 Science News

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

I hope the semester is going well! It is hard to believe the midpoint of the fall term is just 2 weeks away. As can be seen from the activities and recognitions submitted below, it has been a busy time.

## Outreach, Recognitions, & Other Notables

- ◆ Anne Pabst (Biology and Marine Biology) has been selected as President Elect for the Society for Marine Mammalogy. Dr. Pabst will serve a two year term as President Elect followed by a two year term as President. This international group, with over 2000 members from 25 countries, seeks to promote the global advancement of marine mammal science and contribute to its relevance and impact in education, conservation and management. Information on the Society [here](#).
- ◆ Kory Enneking, an undergraduate Marine Biology major (working with Ami Wilbur), received the 2016-2017 Marine Aquarium Societies of North America Undergraduate Student Scholarship. The award is one of two granted by the organization, the other going to a graduate student. Info [here](#).
- ◆ Audrey Taylor, B.A. Geography candidate, was selected as one of four Portz Scholars in the National Collegiate Honors Council (NCHC) competition for outstanding undergraduate Honors paper. Her paper, *Molecular and Isotopic Proxies of Mid-Holocene Hydroclimate and Paleoenvironmental Change in a Coastal Wetland: Praia Rei Cortiço, Portugal*, was advised by Dr. Mike Benedetti and her laboratory work was completed under the supervision of Dr. Chad Lane at the Center for Marine Science. She will present her thesis research and accept the award at the October conference of the NCHC in Seattle, WA. Audrey is also the recipient of a NOAA Hollings Scholarship, and a UNCW Board of Visitors Undergraduate Research Fellowship. Info [here](#).
- ◆ Jin-si Over (EOS) received the Outstanding oral presentation award at the NOAA Hollings Symposium for her presentation on "Quantifying shoreline change rates using orthophotogrammetry in a regime of rising sea level" (Photo to the right)
- ◆ Dr. Stuart Borrett (Biology and Marine Biology) was the keynote speaker at the Estuarine & Coastal Sciences Association Conference in Germany. Article [here](#).



## Outreach, Recognitions, & Other Notables Continued...

- ◆ Update from The Undersea Vehicles Program (Lance Horn and Jason White, CMS): UVP completed 10 days of operations in the Flower Garden Banks National Marine Sanctuary in September. UVP completed 52 ROV dives and spent more than 56 hours on the bottom with the ROV. Please see our Facebook page for digital still and HD screen grab highlights from the trip [here](#).
- ◆ Update from CORMP (Chris LaClair, Jennider Dorton, Brett Bolton, Lynn Leonard: CMS and EOS): CORMP buoys logged data from Tropical Storm Hermine and Tropical Storm Julia this month. On September 2nd, as TS Hermine passed near Hilton Head, SC the FRP2 buoy logged wind gusts of 74 knots. As the storm passed by Wrightsville Beach, the LEJ3 wave buoy recorded wave heights of 16 feet. Only one buoy was damaged during Hermine; CAP2, located north of Charleston, lost both solar panels.
- ◆ D. Wilson Freshwater (CMS) worked as a scientific diver and epibenthic organism expert for a NOAA-EPA project at the Fernandina Beach, Florida dredging dump site from 31 Aug - 8 Sep. UNCW divers continue to provide support for a variety of offshore projects.
- ◆ The most recent issue of re-search magazine featured research and achievements by:
  - Aswani Volety (international collaborations)
  - Daniel Baden, Lynn Leonard, Martin Posey, Paul Reinmann and Steve Ross (funding achievements)
  - Chris Finelli, Joe Pawlik, Patrick Erwin, and Steve McMurray (research on coral reef systems)
  - Elizabeth Darrow and the SciCo team (Brander, Alphin, Volety and Posey) (research on aquaculture impacts).

## Presentations & Publications

- ◆ Mike Mallin (CMS) presented “Protecting coastal streams: the Wilmington experience” at Ecostream 2016 – Stream Ecology and Restoration Conference held in Asheville, NC.
- ◆ Erin Warren and Michael Benedetti (EOS). “Fluvial Response of the Cape Fear River to Late Quaternary Climate Change.” Presented to Geological Society of America Meeting
- ◆ Dr. Chad Lane and Andrea Hawkes (EOS) “Muddy Time Machines: Sediment records of environmental change and sea level variability in the Carolinas” UNCW Planet Oceans seminar
- ◆ Robin L. Varney, Rachel E. Sackett, and Ami E. Wilbur (2016) Analysis of Spatiotemporal Genetic Variability in Eastern Oyster *Crassostrea virginica* (Gmelin, 1791) Mtdna 16S Sequences Among North Carolina Populations *Journal of Shellfish Research* Vol. 35, Issue 2, pg(s) 329-342 (BMB and Shellfish Research Hatchery)
- ◆ Ian Sheffer (former Biology honors undergraduate student) presented on “Bioethics and the Modern Clinician: Historical Lessons and Future Challenges”. Her presentation at UNCW was sponsored by CHHS, Honors College and the Department of Philosophy and Religion.

## **Presentations & Publications Continued...**

- ◆ Marty, M.J., Blum, J.E., Pawlik, J.R. 2016. No accounting for taste: Palatability of variably defended Caribbean sponge species is unrelated to predator abundance. *Journal of Experimental Marine Biology and Ecology*, 485: 57-64. Publication [here](#). (Biology and Marine Biology)
- ◆ Brander S.M., M.K. Gabler, N.L. Fowler, D. Schlenk, R.E. Connon. 2016. Pyrethroid pesticides as endocrine disruptors: Molecular mechanisms invertebrates with a focus on fishes. *Environmental Science and Technology*: [pubs.acs.org/doi/abs/10.1021/acs.est.6b02253](https://pubs.acs.org/doi/abs/10.1021/acs.est.6b02253) (Biology and Marine Biology)
- ◆ Kraus SD, RC Kenney, CA Mayo, WA McLellan, MJ Moore and DP Nowacek. 2016. Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future. *Frontiers in Marine Science*. doi: 10.3389/fmars.2016.00137 (Biology and Marine Biology)
- ◆ Luther, David, and Raymond M. Danner. 2016. Males with larger bills sing at higher rates in a hot and dry environment. *The Auk: Ornithological Advances* 133 (4): 770-778. (Biology and Marine Biology)
- ◆ Halls, J.N. and K. Costin\*, 2016. Submerged and emergent land cover and bathymetric mapping of estuarine habitats using WorldView-2 and LiDAR imagery. *Remote Sensing*, 8(9), 718; doi: 10.3390/rs8090718. Publication [here](#). (EOS) \* MS Marine Science student, graduated in Dec, 2016.
- ◆ Watanabe, W.O., Alam, M.S. Ostrowski, A.D., Montgomery, F.A., Gabel J.E., Morris, J.A. Jr., and Seaton, P.J. 2016. Live prey enrichment and artificial microdiets for larviculture of Atlantic red porgy *Pagrus pagrus*. *Aquaculture Reports* 3: 93-107.
- ◆ Anderson, A.D., Alam, M.S., Watanabe, W.O., Carroll, P.M., Wedegaertner, T.C. and Dowd, M.K. 2016. Full replacement of menhaden fish meal protein by low-gossypol cottonseed flour protein in the diet of juvenile black sea bass *Centropristis striata*. *Aquaculture* 464: 618-628.

## **Grants**

- ◆ Baden, Daniel. A1 Biochemical Laboratories Postdoctoral Fellowship 2016-2017. A1 BioChem Labs. \$40,000 (MARBIONC)
- ◆ Baden, Daniel; Blum, James; Horn, Lance; Lammers, Mark; McNamara, Dylan; Szmant, Alina; White, Jason; Whitehead, Robert; Wright, Jeffrey; and Stewart, Allison. THE COOPERATIVE INSTITUTE FOR OCEAN EXPLORATION, RESEARCH, AND TECHNOLOGY (CIOERT). Florida Atlantic University. \$276,870.00 (MARBIONC, Math and Statistics, Physics and Physical Oceanography, CMS, Chemistry).
- ◆ Sharf, Frederick. A comprehensive evaluation of the North Carolina red drum juvenile abundance index: assessment of spatial and temporal persistence and the potential for a partial replacement survey design. North Carolina Department of Environment and Natural Resources (NCDENR). \$60,282.00 (Biology and Marine Biology)

## **CMS & Partners**

- ◆ The UNCW Board of Trustees will be visiting the Center for Marine Science Thursday evening, 27 October. This is a chance for them to see the CREST campus and the work we are doing.
  
- ◆ NC SeaGrant to host a shellfish aquaculture workshop at CMS on 15 October. Ami Wilbur (Biology and Marine Biology; Director of the Shellfish Research Hatchery) and Jay Styron (CMS and President of the North Carolina Shellfish Growers Association) will be speakers.
  
- ◆ NC Coastal Reserve and National Estuarine Sanctuary will host the following talks at CMS during October and early November:
  - ⇒ End of Nesting Season Update  
October 6, 2016 6-7:30 p.m. UNCW CMS Auditorium  
Presentation will cover the 2016 nesting success of sea turtles and nesting shorebirds on Masonboro Island Reserve
  - ⇒ The Incredible Oyster  
October 13, 2016 6-7:30 p.m. UNCW CMS Auditorium  
Learn more about oysters and take a guided tour of the UNCW Shellfish Research Hatchery to learn about current research
  - ⇒ Blue Crab Basics and Beyond  
October 20, 2016 6-7:30 p.m. UNCW CMS Auditorium  
Learn all about the life history, potential endocrine disruption, and commercial operations for this "savory beautiful swimmer"
  - ⇒ Barrier Island Mammals and Reptiles  
November 3, 2016 6-7:30 p.m. UNCW CMS Auditorium  
Find out what species reside on barrier islands such as Masonboro Island Reserve
  
- ◆ Alumni and Parent weekend tour of Crest Campus, 24 Sept: Approximately 75 parents and alumni visited CMS, the Shellfish Research Hatchery, and MARBIONC last Saturday. Thanks to Troy Alphin, Edward Arb, Andrea Bourdelais, Martin Posey, Ami Wilbur, Robert York for hosting tours.
  
- ◆ ECU Honors College Tour of CREST Campus, 17 September: as part of increasing interactions among our campuses (e.g. NC CRUS course and new joint doctorate), approximately 35 students from the ECU honors program interested in marine studies visited the CREST campus on Saturday, 17 September and received a tour of the facilities.

## CMS & Partners

- ◆ The newly adopted CMS Policies and procedures Handbook can be found on the CMS website under the Internal information [page](#).
- ◆ You can also find a link to the membership of the various governance committees on this page.
- ◆ Safety and Active Shooter Training: 1:00pm-3:00pm on Friday, 14 October
- ◆ Open House -1 October. The event we've been waiting for! Visit our website [event page](#) or [Facebook](#) for the details.
- ◆ MBCOI is offering to help our stakeholders such as yourself connect with delegates representing 20 countries including Argentina, Australia, Belgium, Canada, Finland, France, Germany, Iceland, Ireland, Israel, Mexico, Netherlands, New Zealand, Norway, Peru, Portugal, Saudi Arabia, Switzerland, UK, and the USA at the **BioMarine Business Convention in Oslo, Norway, from 19-21 October, 2016**. MBCOI and the North Carolina Biotechnology Center Southeastern Office are White Pearl Sponsors of BioMarine. The convention will feature sessions on topics most relevant to the development of marine bioresources such as aquaculture, marine natural products, regulatory issues, and investment opportunities. Please see the online program to find out more details about the topics, presenters, and sponsors.

A current list of all attendees and their respective affiliations can be gotten from the MBCOI office at CMS. If you or one of your partners/colleagues are interested in having MBCOI seek meetings with delegates on your behalf, please contact Deborah Mosca by Monday October 3 with information regarding your interests, product/services, and names of target organizations so I may schedule meetings with the organizations prior to BioMarine.