

Newsletter of the Department of Biology & Marine Biology's Graduate Program



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FALL 2021 BY THE NUMBERS

Stephanie Kamel - Graduate Coordinator

We're several months into what has been a very busy semester! Our graduate students are hard at work taking courses, teaching labs and classes, all while engaging in cutting-edge and exciting research! Plants, mammals, birds, or viruses...you name it, they're working on it.

We are very pleased to welcome **22** new students to the graduate program this semester. This brings us to a total of **21** students in the Master's of Biology, **38** students in the Master's of Marine Biology, **16** students in the PhD in Marine Biology and **13** students in the newly introduced PhD in Integrative, Comparative and Marine Biology! We also have **1** NSF GRFP recipient and **10 (10!)** GRFP applicants this semester. Pretty impressive all around.





AROUND TOWN

- **Marae Linquist** (PhD candidate, Danner lab) writes about the Saltmarsh Sparrow for the Cape Fear Audobon society. Tune in on November 10th at 7pm to hear Marae's talk on the impacts of sea level rise on marsh sparrows!
- **Aaron Ramus** (PhD student, Cahoon lab) talks about the impact of the invasive seaweed *Gracilaria* on hard clams and other intertidal bottom-dwellers for NC Sea Grant's Coastwatch.
- **Mariko Polk** (PhD student, Posey lab) was featured in Coastwatch discussing the importance of coastal resilience through shoreline management.
- **Jocelyn Fifer** (MS student, Posey lab) and the Benthic Ecology lab partnered with US Coast Guard Station at Wrightsville Beach for a workshop on boating and water safety. Coast Guard members provided instruction on navigation, best operating practices, vessel requirements, and how to respond in emergency situations. If interested in attending the next workshop, please contact Jocelyn @ jnf6073@uncw.edu!



HOT OFF THE PRESS

- **Polk MA, Gittman RK, Smith CS, Eulie DO** (2021) Coastal resilience surges as living shorelines reduce lateral erosion of salt marshes. Integrated environmental assessment and management.
- **Langer GL, Taylor AR, Walker CE, Meyer EM, Joseph OB, Gal A, Harper GM, Probert I, Brownlee C, Wheeler GL** (2021) The development and evolution of complex crystal shapes in coccolithophores. *New Phytologist* 231, 1845 - 1857.
- **Neurohr JM, Paulson ET, Kinsey, ST** (2021) A higher mitochondrial content is associated with greater oxidative damage, oxidative defenses, protein synthesis and ATP turnover in resting skeletal muscle. *Journal of Experimental Biology* 224:jeb242462
- **Shamblott KM, Reneker JL, Kamel SJ** (2021) The thermal impacts of beach nourishment across a regionally important loggerhead sea turtle (*Caretta caretta*) rookery. *Ecosphere* 12:e03396.
- **Eulie DO, Leonard L, Polk M** (2020) Sediment Deposition and Availability in Riparian Wetlands. *Journal of Coastal Research*.
- **Meyer EM, Langer G, Brownlee C, Wheeler GL, Taylor AR** (2020). Sr in coccoliths of *Scyphosphaera apsteinii*: partitioning behavior and role in coccolith morphogenesis. *Geochimica et Cosmochimica Acta*. 285, 41-54.

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Congrats to these current superstars: Erin Meyer, Julie Neurhor, Mariko Polk, Kaitlynn Shamblott, Jaymie Reneker

STUDENT SPOTLIGHT

Brett Wilson - MS Biology



Advisor: Dr. Amanda Williard

Hometown: Havre de Grace, MD

Educational/professional background: BS in Environmental Biology from Towson University

What is your field of research, and how did you get into it? I'm broadly interested in conservation biology and population ecology of reptiles and amphibians, particularly species of conservation concern. My MSc thesis is focused on Diamondback terrapin bycatch reduction in the NC commercial blue crab fishery while also assessing terrapin genetic population structure. I got bit by the herpetology bug about halfway through my time as an undergraduate and have never looked back. I started doing fieldwork with state imperiled species including Wood turtles, Bog turtles, and Eastern tiger salamanders, and quickly realized that this is the field of research that I want to continue with. Reptiles and amphibians serve as great models for important conservation research questions.

What attracted you to UNCW? From my first interview with Dr. Williard, I felt a sense of a very supportive and motivated environment among the Biology & Marine Biology department and knew right away that UNCW was the right place for me. In addition, as a Marylander, the opportunity to work on a project that I was familiar with that focused on terrapins and blue crabs seemed like a no brainer!

What is your favorite place on campus? Dobo Hall (it's pretty much my second home at this point!)

What's something interesting about your research you can share that will make us sound smarter at parties? You can play an important role in protecting Diamondback terrapins by simply installing a bycatch reduction device to crab pots!

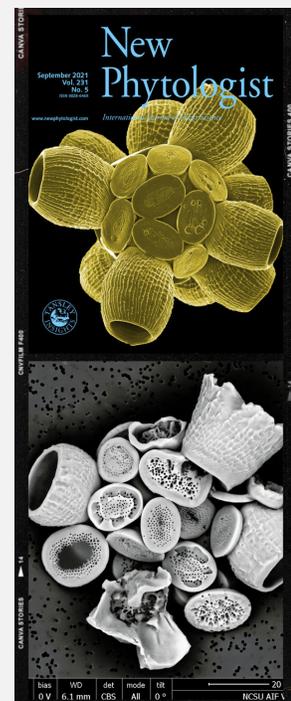
What are your hobbies/other interests? When I'm not out in the field catching terrapins, I enjoy fishing, going to the beach, and hanging out with friends.

Did you know?
Snails have personalities!
Christina Salerno (PhD candidate, Kamel lab) is looking at the effect of prey behavioral types on predator interactions in a marsh ecosystem.



MAKING WAVES

- **Michael Fernandes De Almeida** (PhD student, Kinsey lab) received the 2021 Professional Development Award as part of the BioImaging North America (BINA) Program funded by the Chan Zuckerberg Initiative (CZI).
- **Michael** also received a 2021 Professional Trainee Award from The Histochemical Society in association with the Optical Microscopy & Imaging in the Biomedical Sciences.
- **Erin Meyer** (PhD candidate, Taylor lab) won for best student poster at the 2020 Appalachian Regional Microscopy Society (AReMS) meeting for her work on Meyer et al. (2020).
- **Erin** also has won praise for amazing microscope images: (1) winning in the "Most Stunning" category of the National Nanotechnology Day Image Contest: Plenty of Beauty at the Bottom and (2) securing the cover of the journal *New Phytologist*.



STUDENT SPOTLIGHT

Shiella Olimpos - MS Biology



Advisor: Dr. Darin Penneys

Hometown: Bacolod City, Philippines

Educational/professional background: BS Biology/
Conservation Education Officer, Philippines Biodiversity
Conservation Foundation Inc.

What is your field of research, and how did you get into it?
Plant taxonomy. My first botanical exploration with botanists Dr. Pieter Pelser and Dr. Julie Barcelona inspired me to pursue studies on Philippine plant taxonomy. Their mentoring made taxonomy fun. I feel like identifying plants is like treasure hunting, you get leads but then you need to dig deeper to come up with a proper identification. As you go into the rabbit hole, you find interesting discoveries that never thought of and that makes it more enthralling.

What attracted you to UNCW?
Pursuing MS in the US is a big opportunity. What attracted me to UNCW is that my advisor, Dr. Penneys, is doing taxonomic studies in the Philippines also. He's expertise includes tropical plants and conservation which is the path I plan to specialize on too.

What is your favorite place on campus? The bench under the oak tree outside the library.

What's something interesting about your research you can share that will make us sound smarter at parties? The Philippines ranks fifth in the greatest number of plant species. It has 10,000+ plant species, which contains 5% of the world's flora. About 50% of the plants are found only in the country and nowhere else in the world.

What are your hobbies/other interests: I love to bake.



STUDENT SPOTLIGHT

Jenny Black- MS Biology



Advisor: Dr. Arthur Frampton

Hometown: Southern Pines, NC

Educational/professional background: BS Biology from UNCW

What is your field of research, and how did you get into it?
Virology, specifically horse herpes!

What attracted you to UNCW?
The campus and the people. Everyone is so nice!

What is your favorite place on campus? The greenhouse!

What's something interesting about your research you can share that will make us sound smarter at parties? EHV-1 is said to have infected a whole 60% of the horse population! The latency of this virus makes it a really nasty one when it comes back to cause damage to the health of the horse.

What are your hobbies/other interests: Running, spending time outdoors, walking my cat (she has a stroller from Petsmart)

*Did you know?
Seagrass meadows can lose up to 90% of their cover on an annual basis? Madison Lytle (PhD student, Jarvis lab) is investigating how these changes impact seagrass resilience to disturbance while developing new monitoring techniques using drones.*