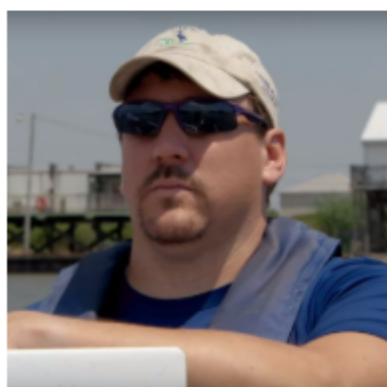




NEWSLETTER

LUMCON.EDU

August 2025



A Message from Executive Director Dr. Brian Roberts

Happy Fall everyone! In this issue, we highlight some of our recent activities and the positive impacts they have for our communities and the coast. As you will learn, LUMCON provides a unique opportunity to connect the people to coastal and marine science. From cutting-edge research with implications that extend beyond

Louisiana to the Gulf Coast and beyond to our experiential education programs that provide learners with critical STEM (science, technology, engineering and math) skills, problem-solving experiences, and coastal and ocean literacy. The work being done by this institution and our partners is driving science innovation, community resilience, and workforce readiness across the region to support a sustainable future for Louisiana's coast and our citizens.

[Visit Our Website](#)

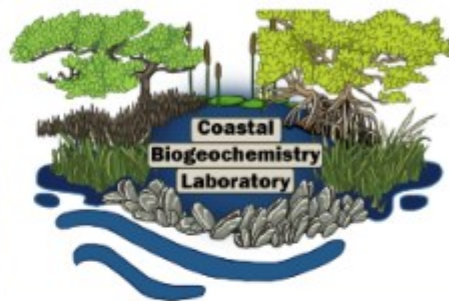
The launch of a new education program at Blue Works for homeschool students



Nothing tells us fall has arrived like the change of pace within the education and outreach programs. In the summer the faces of students in the classrooms and labs become as familiar as our own. But as we celebrate the successes of our summer students, fall brings a steady stream of excited new faces to replace those that have become so familiar. This season brings exciting changes, including expanded programming at both the Marine Center in Cocodrie and the new Blue Works facility on the Houma Maritime Campus. One notable addition is the LUMCON Science Minimester, a 3-week program for homeschool students in grades 4 through 6 that builds marine science and STEM proficiencies through focused themes and STEM skills - this fall's topic and skill was oysters and microscope use. The Minimester complements the longer Marine Science Semester launched in Spring 2025, continuing LUMCON's mission to foster science confidence and coastal literacy. For information about our program offerings visit the Education & Outreach pages on our website by using the button below.

We'll soon be launching our STEM STARTUP Lab series and relaunching our Gulf Lagniappe Workshops and Science Talks! As soon as more details are available updates will be posted on our website, socials, and future newsletter.

Faculty Highlight



Dr. Havalend Steinmuller

Assistant Professor, Coastal Biogeochemistry Lab

Dr. Havalend Steinmuller's research program is dedicated to understanding how coastal ecosystems respond to environmental change. Fundamentally, her research addresses questions about how biogeochemical cycling in coastal ecosystems is transformed by climate stressors, including accelerating sea-level rise. These biogeochemical reactions are critical to understand in order to forecast changes to our future coastal landscapes. Dr. Steinmuller works predominantly in mangrove forests and coastal marshes, though her research efforts span the entire tidal prism, from tidal freshwater forests all the way out to the continental shelf.

One of her current projects explores how mangroves are expanding into tidal marshes and what that means for "blue carbon" storage, nutrient dynamics, and overall ecosystem health. Coastal wetlands, like marshes and mangroves, occupy less than 5% of global land area but demonstrate an exceptional ability to accumulate organic carbon. Coastal Louisiana is a hotspot for this 'blue carbon' storage. Dr. Steinmuller and her team are digging deeper into the 'blue carbon' story by examining how mangrove encroachment into salt marshes alter the ability for these systems to store this critical carbon. Specifically, she's interested in organic carbon 'stability', or how resistant the carbon is to loss through decomposition.

"This research, conducted in Louisiana, capitalizes on this 'natural laboratory' to address a significant gap in our understanding of carbon cycling in coastal ecosystems. Understanding the stability of organic carbon underlying marshes and mangroves allows for improved coastal management practices and more effective coastal restoration strategies that maximize stable, long-term carbon storage and increases the resiliency of our coastal wetlands." - Dr. Steinmuller

Future plans for this project are to expand the scope to include more coastal areas experiencing mangrove encroachment and involve more research collaborators with expertise in plant ecology, chemical biomarkers, and microbial ecology.

[Learn more about Dr. Steinmuller's research](#)

LUMCON has established a partnership with the Coalition to Restore Coastal Louisiana (CRCL) and Grand Caillou/Dulac Band of the Biloxi-Chitimacha-Choctaw through the oyster shell recycling program to build a recycled oyster shell reef to help stabilize critical marsh edges at the Marine Center in Cocodrie. This project, when completed, will use 200 tons of recycled oyster shells that normally put in landfills. The completed reef will not only stabilize the marsh edge, but also create habitat for many different species of crabs, fish, worms, and other marine life. In doing so, the biodiversity of the marsh edge may experience some changes and perhaps restore (revitalize) biodiversity which is threatened by the loss of natural reefs and shoreline habitat. Volunteers will help load shell into wire cages placed along the edge of the bayou just west of the Marine Center (areas highlighted in yellow on the image below).

Volunteer events for this project are scheduled for October 23-25 and November 6-8. If you are interested in volunteering please visit [CRCL.org](https://www.crcl.org) for details and registration information.



[Learn More](#)



**SAVE THE DATE
OPEN HOUSE @ the
DEFELICE MARINE CENTER**

March 28, 2026 | 9am - 3pm



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