

July 14, 2016

From Dean D'Elia

Alumni, students and friends,

The "quieter" summer months at the College of the Coast & Environment allow our dedicated faculty, research staff and students to pursue new and ongoing research projects, whether deep inside the laboratories of the ECE Building, along our Gulf Coast, or farther afield.



Courses such as Assistant Professor Tracy Quirk's Special Field Topics in Oceanography and Coastal Sciences are providing students hands-on experience gathering and studying aquatic specimens in several South Florida locations, including Everglades National Park, Lake Okeechobee and the Tampa Bay Aquatic Preserve, as well as out of the Louisiana Universities Marine Consortium (LUMCON) facility in Chauvin.

Research faculty and staff use the summer months to extend existing research and pursue new projects, such as studying the effects of the 2010 Macondo oil spill on coastal ecosystems, modeling the "dead zone" in the Gulf, and investigating the effects of climate change on food sources for penguins in the Antarctic.

At the University level, new research opportunities have been forged. In June, LSU signed a Memorandum of Understanding with the Juarez Autonomous University of Tabasco of the United Mexican States to foster collaboration in research, sharing of scholarly materials, organization of joint seminars and lectures, and participation in student, faculty and researcher exchanges.



Students in Professor Quirk's OCS 4006 class at Everglades National Park

So, while the campus may appear quiet at first glance during the summer, the energy and excitement of scientific exploration continues and promises to carry on through the fall.

We wish you much happiness and safety throughout the remainder of your summer and look forward to seeing you in August.

Yours truly,

Christopher F. D'Elia

Christopher F. D'Elia, Ph. D.
Professor and Dean

Want to get more involved at CC&E? Invest in our students? Contact Leah Courville at 225-578-6768 or lcourvi@lsu.edu

CC&E News

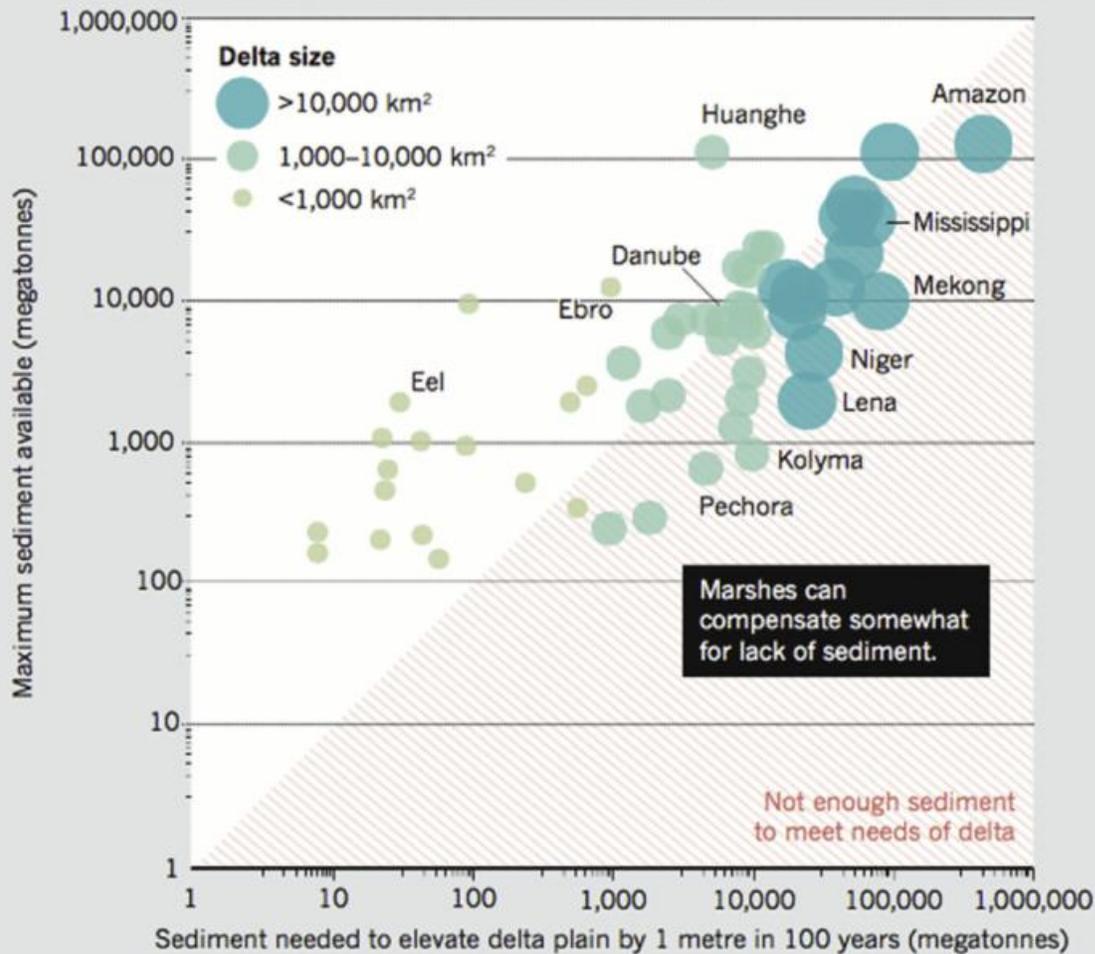
Day, D'Elia, et al., Publish Deltaic Sustainability Paper

In a recent article in *Estuarine, Coastal and Shelf Science*, John Day, emeritus professor, Department of Oceanography & Coastal Sciences, Chris D'Elia, dean, College of the Coast & Environment, and several coauthors, examine the human impact on the world's deltas, discuss approaches to defining deltaic sustainability, and present a ranking of sustainability. Titled "[Approaches to defining deltaic sustainability in the 21st century](#)," the analysis finds that achieving sustainable deltas in the midst of climate change, sea level rise and reduced river sediments will be a difficult challenge, one that will require a complete understanding of the effects of global biological, ecological and socioeconomic issues.

The figure below, featured in the article, shows the relationship between the availability of sediment in a delta and the amount of sediment needed to elevate that delta by one meter. Deltas in the red zone do not receive enough sediment to maintain the present delta size (From Giosan et al. 2014; used by permission).

IN THE RED

Most large- and medium-sized deltas cannot grow fast enough to keep up with sea-level rise in the next century. Damming reduces sediment load further and pushes more deltas into the red.



Armas Awarded Knauss Fellowship

Alvaro Armas, CC&E research associate 4 and acting property and facilities manager, was recently named a Knauss Fellow by the National Sea Grant College Program. The fellowship will give Armas an opportunity to further his knowledge in marine and coastal resources policy and administration. The program matches graduate students with hosts in federal, legislative or executive branch offices for one year.

"I am honored and humbled by being selected for such a prestigious award," Armas said. "I am sure that my time in Washington, D.C., will be filled with opportunities to prepare myself for a career in administration and management of marine resources at state and national levels. I am looking forward to embracing, and growing from, the challenges the Knauss fellowship will bring into my personal and professional life."



Alvaro Armas will be one of two Knauss Fellows representing Louisiana Sea Grant in Washington, D.C., next year.

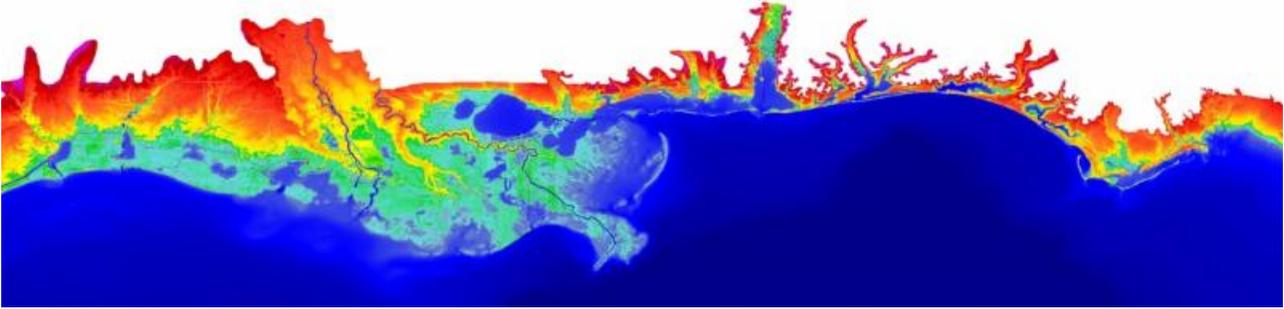
For more information on the award and Armas's research interests, click [HERE](#).

LSU Center for Coastal Resiliency Launches with Symposium

The LSU Center for Coastal Resiliency (CCR) will host a full-day "Kickoff Symposium" on Tuesday,

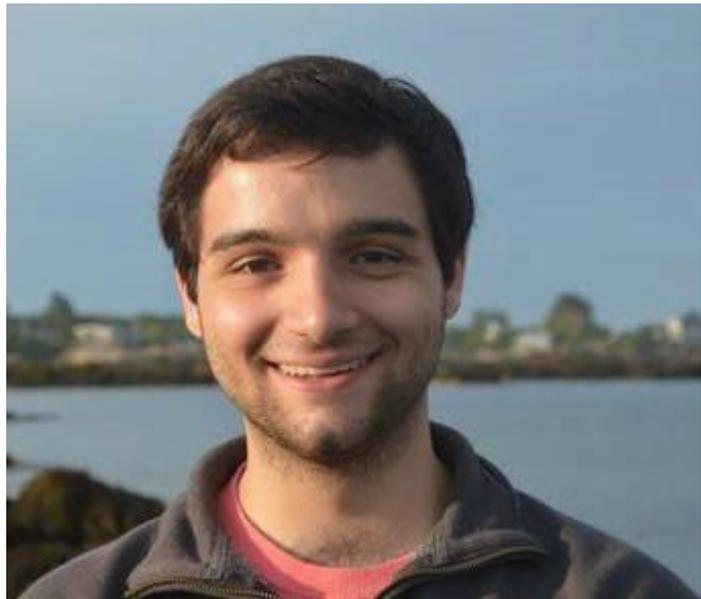
August 16, 2016. The CCR, under the direction of Scott C. Hagen, Louisiana Sea Grant Laborde Chair, is a collaborative entity involving natural and social scientists, engineers, and government agencies who are dedicated to coastal resiliency research targeting the northern Gulf of Mexico. CC&E's Dubravko Justić, professor, Department of Oceanography & Coastal Sciences, and Margaret A. Reams, professor, Department of Environmental Sciences, serve on the CCR's Faculty Advisory Board.

For more information on the CCR and to register for the event, click [HERE](#).



Q&A with...David Fertitta, recent CC&E and Ogden Honors College grad

Recent CC&E and LSU Ogden Honors College grad David Fertitta currently works as an adviser for our coastal environmental science program. This fall, he will begin his Ph.D. studies in oceanography at the University of Washington, where he will focus on the use of chemical tracers to study circulation in the Southern Ocean. As an undergraduate coastal environmental science major and mathematics minor, Fertitta was awarded a prestigious summer student fellowship at the Woods Hole Oceanographic Institution, was named a 2014 LSU Discover Scholar, earned a 2015 Udall Scholarship Honorable Mention, and was active in LSU student government.



What did you do at the Woods Hole Oceanographic Institution?

During my internship, I studied the spreading of surface contamination in the ocean from a hypothetical nuclear accident on the East Coast of the U.S. using a test location of an existing nuclear power plant in Massachusetts. We used drifters, which are floating buoys designed to follow ocean circulation at the sea surface that send their location to satellites, in order to estimate the spread of surface contamination. The goal of the project was to make best use of the available drifter data for studying ocean circulation and to study potential spreading on different spatial and temporal scales.

What was the topic of your undergraduate thesis?

I worked with Dr. Dubravko Justić on a study titled "Assessing the impacts of nutrient load reduction scenarios on the extent and severity of hypoxia in the northern Gulf of Mexico." We studied the effects of reductions in riverine nutrient load through computer simulations in conjunction with different climate scenarios to better understand probable future conditions.

What are your long-term research interests?

I am interested in understanding the ocean's role in the global climate. My goal is to pursue a Ph.D. in oceanography and utilize seagoing observations and scientific computing to research problems in physical oceanography related to ocean circulation and its impact on climate. Growing up on the Mississippi Gulf Coast promoted my interest in marine and environmental science. Being from a region so vulnerable to environmental effects such as hurricanes ultimately inspired me to pursue a career in oceanography. While at LSU, I've been given incredible opportunities to build relationships with many of my professors and advisers, including conducting research on hypoxia in the northern Gulf of Mexico with Dr. Justić. It's such an honor to represent LSU, the Ogden Honors College, and the College of the Coast & Environment on the national level.

Questions about TOPS?

Visit LSU's Financial Aid & Scholarships "[TOPS Update](#)" page for up-to-date information.

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