

## Phragmites Scale Newest Coastal Threat

The Louisiana coast is no stranger to environmental challenges, but the threat to roseau cane (*Phragmites australis*) is new. About a year ago, Plaquemines Parish residents started to notice something different about the usual dense, green coast: It was thinning and browning.

Roseau cane is integral to protecting the marsh from erosion because of its aggressive growth and large root system. The cane, typically standing anywhere between 12 and 18 feet tall, has seen large die-offs since November 2016.

Rodrigo Diaz, Louisiana State University (LSU) professor of entomology and LSU AgCenter researcher, was alerted to the problem by the Louisiana Department of Wildlife and Fisheries (LDWF). It took several months to identify the cause: A small-scale insect that measures less than half an inch at maturity which feeds on the sap of the plant.

The scale insects attacking the cane are native to China and Japan. How they ended up in coastal Louisiana is unknown. Methods used to manage the insect in those countries include seasonal flooding and burning — two solutions not well-suited for Louisiana.

Cane samples collected by Diaz and his colleagues from last fall feature stalks covered with scales up to three layers deep. Anywhere between 10 and 100 scales can be found within 10 inches on individual samples. In a sample from August 2017, one plant from lower Plaquemines had 2,298 scales.

"Over time, the energy the plant is supposed to store within the root system is drained. At large scale densities, as seen in lower Plaquemines, the scales are stressing the plant," Diaz said. "When you are stressed, your immune system is compromised and you become more susceptible to other things. In this case, the cane becomes more susceptible to other environmental factors or diseases."

Four varieties of the cane are found along Louisiana's coastline, and only one of those varieties may be considered native. Of the four, the researchers note that the European variety is faring better than the rest. While scientists observed cane regrowth in affected areas was noticeably weaker this year, the European variety looks to be more resistant to attack than others.

"From a restoration perspective, therein might lie our solution. If we can encourage the growth of this European variety, it may solve our problems. There is something about the European variety that is not affected as severely as others," said Jim Cronin, LSU professor of biological sciences.

Both Diaz and Cronin recognize how imperative finding a solution to this problem is, and Cronin notes scientists in Europe have been dealing with the same issue for decades. "It's a multi-faceted problem, and there isn't really a simple solution to it. The reality is that finding a solution is just going to take more time."



# 2017 LaDIA Faculty Fellows

Xiuping Zhu,  
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and Environmental  
Engineering, LSU



Abigail Bockus,  
Louisiana  
Universities  
Marine Consortium  
(LUMCON)



Marshall Bowles,  
LUMCON



Jovan Tatar,  
Department of Civil  
Engineering, UL

Raul Diaz, Jr.,  
Department of Biology,  
Southeastern Louisiana  
University



**Louisiana Sea Grant  
has selected  
14 tenure-track faculty from  
seven university campuses  
as 2017 LaDIA Fellows. Louisiana  
Discovery-Integration-Applications  
(LaDIA) Fellows will receive  
training from experts in science  
communication, outreach and  
education. Over the course of three  
retreats in Cocodrie, Grand Isle  
and along the Chenier Plain they  
will broaden their knowledge of  
coastal concerns and expand  
their research relevance.**

Since LaDIA's pilot year in 2014, 40 fellows have explored possible research and outreach projects in coastal communities from Grand Isle to the Chenier Plain.

For more information  
about LaDIA, visit

[www.laseagrant.org/outreach/ladia/fellowships/](http://www.laseagrant.org/outreach/ladia/fellowships/)

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Kelly Robinson,  
Department of Biology,  
University of Louisiana  
at Lafayette (UL)



Guillaume Rieucan,  
LUMCON

## Four Louisiana Grad Students Named Knauss Finalists

The Louisiana Sea Grant College Program (LSG) will have four Knauss Fellows in Washington D.C., in 2018 – a first.

“This is truly an honor for Louisiana Sea Grant,” said Robert Twilley, LSG executive director. “We’ve typically had one, sometimes two fellows in any given class. For us to have four is unprecedented. I can’t say enough about these scholars and how happy we are to have nominated them.”

The students are: Michelle Felterman, Sarah Margolis, Andy Muench and Bret Sparks.

Sponsored by the National Sea Grant College Program, the John A. Knauss Fellowship matches graduate students with an interest in ocean and coastal resources and national policy affecting those resources with hosts in federal legislative or executive branch offices for one year. In November, fellows will travel to Washington, D.C., to determine in which offices they will work. Fellowships will begin Feb. 1, 2018.

**Felتمان** earned a Bachelor of Science degree in biology and a Master of Science degree in marine and environmental biology from Nicholls State University. Her Juris Doctorate is from Tulane University Law School. “The Knauss Fellowship would give me firsthand experience in creating policy and an understanding of how something goes from being an idea to becoming law,” said Felتمان. “That experience would be invaluable in the future as I work to create and uphold environmental policies aimed at protecting our coastal and marine environments for the future.”

**Margolis** is nearing completion of a Master of Science degree in oceanography and coastal sciences at LSU. She earned a Bachelor of Arts degree in marine science from Boston University. Her interest in the marine environment was sparked at a young age and grew throughout her academic career and experiences abroad. “The Knauss Fellowship would be fundamental to achieving my long-term career goal of working in international fisheries,” said Margolis. “The

U.S. is a world leader in marine policy; the opportunity to work alongside and learn from policy and management experts in Washington, D.C., makes this fellowship uniquely relevant to my interests.”

**Muench** is also completing a Master of Science degree in oceanography and coastal science at LSU. He earned a Bachelor of Science degree in botany and wildlife ecology from the University of Wisconsin-Madison, and is interested in ecosystem services provided by wetlands. “Through this fellowship I will develop policy making skills which will better allow me to effect positive change in environmental policy throughout my career. I not only plan on learning as a Knauss Fellow but I will strive to use my experience as a researcher, teacher and ecologist to help better inform coastal policy during the fellowship,” said Muench.

**Sparks** grew up exploring the swamps and marshes of south Louisiana. “I bore witness to the impacts that policymakers’ decisions have

*(Continued on next page)*

## HACCP Training Offered again by Sea Grant

Seafood Hazard Analysis and Critical Control Points (HACCP) training is again being offered to processors twice a year by Louisiana Sea Grant (LSG) and the LSU School of Nutrition and Food Sciences.

“Seafood HACCP classes will be held in January and June,” said Evelyn Gutierrez Watts, seafood specialist with LSG and the LSU AgCenter, and an assistant professor of nutrition and food sciences. “The training includes classroom work and hands-on exercises, and it is recognized by the U.S. Food and Drug Administration (FDA).

“Sanitation Control Procedures for Fish and Fishery Products is also offered twice a year, usually on the Monday before HACCP classes,” she added.

HACCP is a systematic, preventive approach to protect seafood, meats and fruit juices from biological, chemical and physical hazards that can cause food product to be unsafe. Both the FDA and U.S. Department of Agriculture (USDA) require food processors to have HACCP protocols to protect public health. In most instances, seafood is regulated by the FDA and meat and poultry by the USDA.

“With the most recent Farm Bill, catfish production went from FDA to USDA oversight,” said Watts. “Catfish producers had to follow food safety procedures under FDA, but now they have to meet USDA standards and there are differences.”

Those differences and new compliance regulations were explained to catfish processors at two workshops in August. Approximately 380 million pounds of catfish are produced in the United States annually. According to most recent data, only about 80 acres of ponds in Louisiana

are currently being used for catfish production. At its high, thousands of acres of ponds were used for catfish farming.

Watts also provides Good Manufacturing Practices (GMP) and HACCP training targeted to supervisors, monitoring personnel and food handlers. It is a one-day class that can be held at the processor’s facility.



Evelyn Watts (standing), seafood extension specialist for Louisiana Sea Grant and the LSU AgCenter, conducts a USDA/FSIS Catfish Compliance Workshop in August at LSU. Watts also conducts HACCP and GMP trainings.

“With FDA revised GMP regulations, seafood processors are required to train employees in the principles of food hygiene and food safety, including the importance of employee health and personal hygiene as appropriate to the food, the facility and the individual’s assigned duties. Some facilities looking into Safe Quality Foods certification are also looking for this type of training for their employees,” said Watts. “This class fulfills the requirements.”

Upcoming seafood HACCP and sanitation classes will be announced at [www.laseagrant.org](http://www.laseagrant.org) and [www.lafisheriesforward.org](http://www.lafisheriesforward.org). Watts can be reached at [egwatts@agcenter.lsu.edu](mailto:egwatts@agcenter.lsu.edu).

on this area, both good and bad, and I understand how much power one decision can have on an ecosystem and its resources,” he said. He earned a Bachelor of Science degree in plant and soil systems from LSU, Master of Science degree in plant and soil sciences from the University of Kentucky, and Juris Doctorate from the Paul M. Hebert Law Center at LSU. From the fellowship, Sparks hopes to gain the tools necessary to establish a career focused on protecting natural resources for future generations.

There are 60 finalists in the 2018 Knauss class.



Bret Sparks, Michelle Felterman, Robert Twilley, Sarah Margolis and Andy Muench.

## Ecotourism Offers the Seafood Industry New Revenue Streams

Living in south Louisiana demands resiliency. Whether recovering from storms, adapting to coastal land loss or evolving a business, living on the coast requires flexibility and creativity. Kim and David Chauvin exemplify this.

The Chauvins have been shrimping for 30 years. They’ve weathered many storms – both literal and figurative. When cheap imports flooded the market, they cultivated relationships with restaurants, stores and roadside stands. When customers were displaced by Katrina, they trucked shrimp across state lines. After the BP Oil Spill, they dutifully subjected their shrimp to testing, demonstrating that it was safe to eat.

But it was a trip far from warm Gulf waters that sparked a new idea for the family business. On a Tennessee farm, Kim saw the effective combination of a bustling gift shop and an assortment of activities and games to lure customers. She took this seed home and translated it into Down the Bayou Shrimp Tours.

“Ecotourism will be extremely important to our industry,” Kim concluded from her experience.

Traditionally, ecotourism has meant charter fishing and waterfowl hunting. But recently, there has been more interest across the coast in birding, photography, marsh tours, airboat rides, alligator hunts, shrimping excursions and what has been coined “sea to table” events.

Louisiana Sea Grant has sponsored or co-hosted a number of ecotourism workshops from Belle Chase to Cameron – all drawing large crowds. Coastal landowners, farmers, marina owners, fishermen and others learned about income opportunities from nature-based tourism, liability and legal considerations, the economics of the industry and heard ecotourism success stories. The Chauvins want to be one of those success stories and could serve as an example of how a traditional, family-owned shrimping business can expand its horizons and revenues.

Down the Bayou Shrimp Tours provides visitors a glimpse into the shrimping business as they follow shrimp from the boat to the processing

plant to the market and learn about the substantial infrastructure behind the industry. They also get a lesson in conservation as they learn about the sustainability of the domestic harvest and the environmental and economic problems with shrimp imports. “We want to educate those who visit, for them to have fun, to taste the greatness of our fresh seafood and for them to go out and tell others.”

Louisiana Sea Grant Seafood Industry Liaison Julie Falgout can attest to the Chauvins’ prowess in sharing the message of the shrimping community.



Ecotourism is an income opportunity being explored by some in Louisiana’s shrimping industry.

“Kim does such a good job explaining the industry – what goes on the boat, how it comes in, where it’s coming from. This new venture will showcase another opportunity for those in the shrimping industry.”

“My ultimate goal is to become a destination for tourists where they can purchase their seafood, learn about our industry, enjoy the atmosphere and eat fresh seafood as it’s cooked for them,” said Kim.

## Endangered Cemetery Book Available in Fall

A new Sea Grant supported book will make its debut on Oct. 28 at the Louisiana Book Festival. *Fragile Grounds: Louisiana's Endangered Cemeteries*, published by University Press of Mississippi in partnership with Louisiana Sea Grant, is part of the America's Third Coast book series.

Authored by Jessica H. Schexnayder and Mary H. Manhein, *Fragile Grounds* compiles stories and photographs of endangered cemeteries throughout the state's coastal zone and beyond, linking the fragile land to the frailty of the state's threatened community structures. It highlights the state's vibrant diversity as shown through its unique burial customs and traditions, while promoting the need for ongoing documentation of cultural elements at risk.

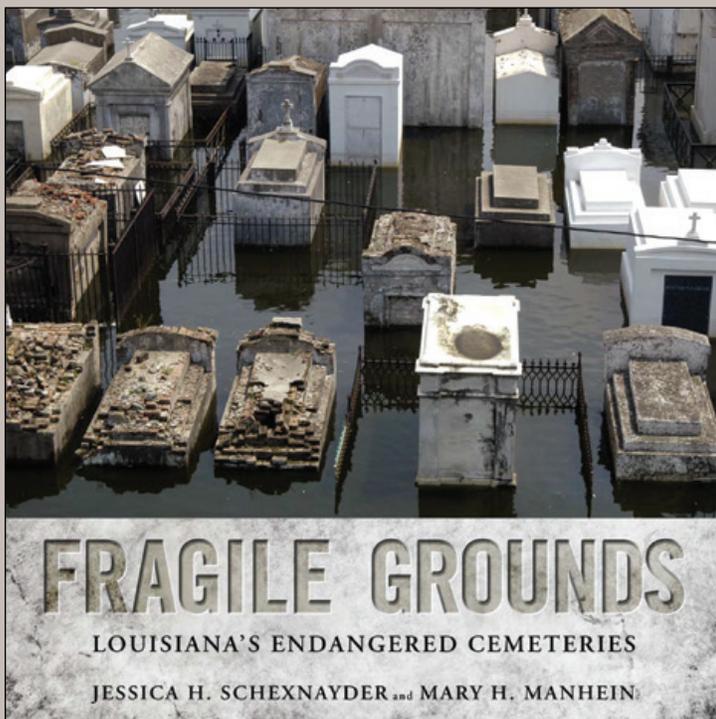
The cultural fabric of south Louisiana is a rich tapestry of people and customs from throughout the world, woven together to form tight-knit communities. Cemeteries associated with these communities reflect the history and settlement patterns of the state. Yet, many are endangered due to recurring natural and man-made events. Coastal erosion, sinking land, flooding, storm surge and sea level rise have created an inland migration which threatens to unravel the fabric of Louisiana's communities and, by association, hastens the demise of its cemeteries. These endangered sites are a source of comfort for the living, but also a link to the historical past; once lost, that past cannot be recovered.

*Fragile Grounds* covers a diverse selection of coastal and inland cemeteries documented by the authors from 2011 through 2016. The research represents 138 cemeteries in 24 parishes and includes the coordinates for each site's geographical boundary and more than 11,000 photographs. Those chosen for the manuscript have been affected by a wide array of historical and modern events, including Hurricanes Audrey, Katrina, Rita and Isaac, the floods of 1927 and August 2016, and several cases of eminent domain.

Schexnayder is a retired communications coordinator for Louisiana Sea Grant. She is passionate about documenting the people, history and culture of south Louisiana.

Manhein is retired director of the Forensic Anthropology and Computer Enhancement Services (FACES) Laboratory at Louisiana State University. She is the author of five books.

*Fragile Grounds* can be ordered through the University Press of Mississippi at [www.upress.state](http://www.upress.state).



## Message from the Executive Director

First and foremost, I want to thank everyone who voiced support to Congress for continued funding of Louisiana Sea Grant and the National Sea Grant College program. The dozens of letters from our diverse stakeholders impressed our congressional delegation, and it impressed upon them the importance of Sea Grant to our coastal communities and economies.

But the effort to ensure Sea Grant's continued existence isn't over until the Fiscal Year 2018 federal budget is approved. Anyone who still wishes to share their support for Sea Grant with Congress can send their support using our letter templates and other resources available on our website at [www.laseagrant.org/about/did-you-know/](http://www.laseagrant.org/about/did-you-know/). We also have some of our key stakeholders providing testimonials on 'Why Louisiana Sea Grant Matters' that can be found on our Facebook, Twitter and YouTube social media channels.

Secondly, I'd like to say that 2017 is turning into a historic year for Louisiana Sea Grant.

It was recently announced that LSG has four Knauss finalists for 2018. That is a record number for our program. In the past, we've consistently had one or two Knauss Fellows representing Louisiana Sea Grant in Washington, DC – but to have four is unprecedented. I can't tell you how exciting it is to have these four young professionals represent Louisiana in federal administrative and legislative offices learning how science can be used to support good public policy.

We also have our largest class of LaDIA Fellows this year. Fourteen tenure-track faculty have already participated in one of three workshops where they will develop their communication, outreach and leadership skills. These university researchers come from campuses across the state – LSU, LUMCON, Southeastern, Nicholls State, UNO, UL and Tulane.

Including the 2017-18 class, 40 university faculty have become LaDIA Fellows. And LaDIA's success has other Sea Grant programs around the country looking at using our model to implement similar fellowships in their states to encourage faculty engagement in coastal issues.

We continue to develop the mission of Sea Grant as a leader in coastal research, education and outreach, and look forward to working with each of you, and our many partners across the state, to address the challenges of our coastal communities.

Robert Twilley, Ph.D.  
Executive Director  
Louisiana Sea Grant College Program





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The Louisiana Sea Grant College Program is part of the National Sea Grant College Program maintained by the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce. Sea Grant, a unique partnership with public and private sectors, combining research, education and technology transfer for public service, is the national network of universities meeting changing environmental and economic needs of people in our coastal, ocean and Great Lakes regions.

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Please send change of address, subscription requests, and correspondence to *Coastal Clips*, Louisiana Sea Grant Communications Office, Louisiana State University, Baton Rouge, LA 70803. (225) 578-6564. *Coastal Clips* is published four times a year. Subscriptions are free upon request. Visit us online at [www.laseagrant.org](http://www.laseagrant.org).

NUMBER 45  
FALL 2017

# Coastal Clips

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