Sea Grant Capturing Coastal Zone Oral Histories

Natural, man-made and economic factors are taking their toll on Louisiana's coastal communities and the traditional industries that have supported them. Whether caused by subsidence, hurricanes or global competition, the culture and landscape of the coastal zone are changing, and in some cases, disappearing.

Recognizing the importance of recording residents' lives, livelihoods and voices before they are lost, Louisiana Sea Grant is expanding its oral history work. The process began more than four years ago when LSG produced the Web film series "Shrimp Tales" (*www.seagrantfish.lsu.edu/people/shrimptales.htm*), featuring photographs and interviews with fishermen discussing changes, challenges and wives' tales in their profession. "Reflections on Chandeleur" (*www.laseagrant.org/lighthouse/index.html*), completed in 2009, documents the island chain's lighthouse and landscape through a trove of donated photographs and audio interviews with anglers, scientists and naturalists. Now, a more aggressive approach to collecting and sharing oral histories is taking place.

"We're putting more resources into the project and covering more of the Louisiana coast," said Roy Kron, LSG outreach and communications director. "One day the people who experienced the coastal zone lifestyle as we know it will be gone. And it's likely some of our coastal communities will be gone. It is imperative that knowledge in these towns and villages be captured so that the memories of their custodians can be preserved for current and future generations.

"Capturing their experiences, as well as the stories told to them by parents and grandparents, will keep a vital part of Louisiana's history alive. It also will serve as a benchmark or baseline. Future generations will know these people were here, these communities and businesses were here, what type of lifestyle was here, and in some cases even that there was solid ground here," he added.

The latest chapter in the project is complete – an oral history of Grand Isle by Earl Robicheaux, who produced *Losing Louisiana: Oral Histories of Coastal Land Loss, Voices of the Atchafalaya*, and *Atchafalaya Soundscapes*. Louisiana Sea Grant, in partnership with the Louisiana State Museum, helped Robicheaux produce his newest collection, *Grand Isle Diaries*.

Robicheaux captured 24 hours of interviews with Grand Isle residents recounting memories and stories about their community. Once transcripts of the interviews are complete, the raw audio and text will be posted online.

But what appears on LSG's Web site now – *www.laseagrant.org/comm/diaries.htm* – is a *Diaries* "soundscape." Those interested in a ordering a copy of the soundscape on CD can e-mail *jsche15@lsu.edu*. The disc is free, but there is a $6 shipping and handling fee for mailed copies.

"It basically takes the hours of recordings and condenses them into an hour-long story about Grand Isle's founding and history up through recent hurricanes," said Robicheaux. "It doesn't matter if the listener is from Louisiana or not, they'll understand the importance of Grand Isle after listening."

Additionally, full versions of all the materials, transcripts and the original audio tapes will be archived and made available at Louisiana State University's Hill Memorial Library.

"This, with all the oral histories collected, is a long-term project," said Kron. "The value of the transcripts can't be underestimated. Transcribing is one of the most labor-intensive parts of the process, but it's one of the most valuable. Listening to ten hours of audio takes ten hours, but reading the transcript takes substantially less time. For researchers and others who want to mine these histories, the text is critical."

Another segment of the project is the work of recently retired LSU professor Don Davis and Carl Brasseaux with the University of Louisiana at Lafayette. With LSG support, the duo began scouring the coastal zone months ago collecting oral histories focused on shrimping, land holding companies, cypress harvesting and the oyster and cattle industries.

"There are so many doors that open up once you get started," said Davis. "You might be talking to someone about shrimping and that leads you to the topic of shrimp drying platforms. Then you start talking about Chinese and Filipino immigrant involvement in shrimp drying – which has never been formally documented, to my knowledge. That takes you down another path. It almost is endless."

Brasseaux and Davis have already recorded dozens of hours of audio and video interviews on a variety of coastal zone topics, and many of those audio files have been transcribed. Additionally, the pair has tens of thousands of images they've scanned and stored – ranging from family photographs to copies of official records. All their work will be available at Hill Memorial Library.

"We literally have terabytes of images," noted Davis.

One of Davis' subjects is retired cypress harvester Kerney Sheets of Gonzales. Sheets began his career in the 1950s by salvaging sunken cypress logs that were cut decades earlier by logging companies. The "sinkers" weren't properly prepped for water transport and plunged to the bottom of bayous and rivers. As Sheets grew his business, he designed and built most of the equipment he used to harvest timber – including a swamp buggy. A short video where Sheets demonstrates his unusual vehicle can be found on LSG's YouTube channel – *www.youtube.com/watch?v=aHR0cIGheng&feature=channel_page*.

Excerpts from a number of the oral histories will be turned into Web films and podcasts. Sea Grant also is beginning to place electronic video kiosks in museums, and some of the interviews will be shared in this way.

Kerney Sheets stands next to his home-built swamp buggy.

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C O A S T A L C L I P S

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C O A S T A L C L I P S

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Resource, Coastal Conferences Scheduled

Two significant conferences concerning coastal Louisiana will take place this summer.

The Center for Natural Resource Economics and Policy (CNREP) will hold its third national forum on socioeconomic research in coastal systems May 26-28 at the Royal Sonesta Hotel in New Orleans. "This conference continues CNREP's tradition of focusing on coastal resources and their role in the economic, social and cultural systems of the world," said Rex Caffey, CNREP director and a Louisiana Sea Grant resource economist.

Topics to be covered at the forum range from market-based alternatives to regulation and commercial and recreational resource conflicts, to energy economics and policy, to the economics of disaster assessment and recovery. Among the keynote speakers will be Abby Sallenger with the U.S. Geological Survey's National Assessment of Coastal Change Hazards and author of *Island in a Storm: A Rising Sea, a Vanishing Coast, and a 19th Century Disaster that Warns of a Warmer World*.

More information about the forum, including registration and accommodations, is available at *www.cnrep.lsu.edu*.

The State of the Coast Conference, scheduled for June 8 -10 at the Baton Rouge River Center, will provide a forum to learn about recent advances in science and engineering as they relate to hurricane protection and coastal ecosystem restoration. The three-day conference will consist of presentations by leading experts in concurrent sessions, coffee-house sessions, keynote speakers, a coastal policy plenary session, poster sessions and social networking opportunities.

Individuals interested in coastal landscapes, planning and management activities or coastal uses are encouraged to attend. The conference will have three themes: science and engineering, coastal planning and management, and coastal policy.

For more information, visit *stateofthecoast.org*.

Coastal Clips is a quarterly publication of the Louisiana Sea Grant College Program.

Doing More than "Carping" about an Invasive Species

They're ugly. They're gluttons. They're invaders that don't belong here. They've damaged boats, and they'll smack you in the face if given the chance.

They're Asian carp, and Glenn Thomas, the Marine Extension director with Louisiana Sea Grant, and Duane Chapman, a research fisheries biologist with the U.S. Geological Survey in Columbia, Mo., would like to help you eat two types of them.

Members of the genus *Hypophthalmichthys*, bighead carp (*H. nobilis*) and silver carp (*H. molitrix*) were deliberately introduced to the United States in the 1970s to help manage aquaculture ponds and wastewater lagoons. But they quickly escaped into the wild where their populations have grown exponentially in the Mississippi River basin. Native to large rivers and associated floodplains in eastern Asia, these carp were first observed in Louisiana waters in the 1980s. They are members of Cyprinidae, the largest family of freshwater fish. These carp live quite well in ponds, reservoirs and canals, but require a riverine environment to reproduce, where they are prolific breeders. Research has found female bighead carp spawning for the first time have an average of 280,000 eggs, and older females have been documented to have more than a million eggs at a time.

The fish are odd looking, with small, downward-facing eyes; a stout body; and a protruding lower jaw. Silver carp commonly exceed 20 pounds, and bighead carp commonly exceed 40 pounds. Record catches of both fish have approached 100 pounds. However, the silver carp's most unusual and dangerous characteristic is behavioral – when startled by the sound of a boat motor, the fish attempt to flee danger by jumping high out of the water. This defense mechanism results in frequent strikes to vessels and people, sometimes breaking human bones and blackening eyes.

Chapman reports that carp struck his boat throttle on two occasions, running his vessel aground in the second instance. He devised a throttle cover to prevent a third attack. Throttle protectors are becoming more common on recreational boats that operate where silver carp are a problem. In addition, these filter feeders may pose a threat to native fish like bigmouth buffalo (*Ictiobus cyprinellus*) and the paddlefish (*Polyodon spathula*) by competing for food and habitat.

Bighead and silver carp are meaty, mild and versatile. Here they are shown fried, blackened and grilled.

What to do about this menace whose range in the United States continues to grow? "We need to develop a market for these things because the breeding populations are already established," Thomas said. "The best thing we can do is to utilize them as fully as possible. Other Sea Grant programs and other agencies are thinking the same way. The Mississippi River Basin Panel on Aquatic Nuisance Species and Illinois Sea Grant are also looking for ways to stimulate the market."

"The national management and control plan for Asian carps includes harvest enhancement and market development as primary tools for decreasing Asian carp populations," Chapman added.

"Duane (Chapman) worked with the fish extensively in the U.S. and suggested their use as table fare, but was having trouble developing a teaching tool on how to clean them," Thomas explained. "Asian carps have excellent flesh but a very unusual bone structure. Duane developed some unique cleaning methods that will put them on the table."

Thomas and Chapman teamed up recently to record an instructional video that is part cooking show and part fish and game report. A natural in front of the camera, Chapman described the fish's biology and anatomy and gave step-by-step coaching on the proper way to clean them. He cooked it three ways – blackened fillets, grilled fillets

(continued inside)

Carp

Continued from page one

and a fried, bone-in preparation Chapman calls "flying carp wings." It is a meaty fish – moist, white, flaky and mild, provided it is properly handled – and larger carp yield generous fillets.

There is one catch to catching this delicious fish. They are herbivores and unlikely to respond to traditional angling. Chapman said they rarely take baits that would be placed on the end of a fishing line. He uses electrofishing or nets to bring in samples for research.

Duane Chapman with the U. S. Geological Survey demonstrates how to prepare Asian carp for the table.

As for everyone else, "You can go bowfishing or wait for them to jump in the boat," Chapman said. "Commercial fishermen catch them in hoop and gill nets, too." Participants competing in the Redneck Fishing Rodeo on the Illinois River in Bath, IL, use landing nets to catch flying carp in mid-air.

No matter how they are captured, Chapman emphasizes the importance of gutting and icing the catch immediately or the flesh will quickly spoil.

The instructional video was filmed by the LSU AgCenter and based on a script by Pat Charlebois with Illinois Sea Grant. The U.S. Fish and Wildlife Service is providing funding to reproduce and distribute the video.

The film already is available for viewing in three segments online:

• Introduction & Removing Filets
http://www.youtube.com/watch?v=T1NVUV8yhmU
• Making "Flying Carp Wings"
http://www.youtube.com/watch?v=CB-fmA07gZ8
• Deboning Filets
http://www.youtube.com/watch?v=RhGkjwxm_0o

It also is available on DVD from Louisiana Sea Grant for $6, to cover postage and handling, by emailing *jsche15@lsu.edu*. Copies picked up at Sea Grant's offices at LSU are free.

On the Web

U.S. Geological Survey, Columbia Environmental Research Center
http://www.cerc.usgs.gov/
(Follow the "Invasive Species" link.)

Asian Carp Management
www.asiancarp.org

CBS News "Flying Foreign Fish" Redneck Fishing Rodeo
http://www.cbsnews.com/video/watch/?id=2003088n&tag=related;photovideo

Nine Research Projects Funded in 2010 Omnibus

The Louisiana Sea Grant College Program is funding nine research projects for the omnibus proposal period which began Feb. 1, 2010. Below is a synopsis of the projects, along with a list of the principal investigators, extension personnel and their affiliations.

Changing Flood Mitigation: The Consequences of New Flood Insurance Rate Maps on Louisiana Coastal Communities

Melanie Gall (LSU), M. Jude Egan (LSU), Rachel Dowty (LSU), Daniel Monchuk (USM) and Maurice Wolcott (LSG)

The study will identify the driving forces in the decision making process of Digital Flood Insurance Rate Map (DFIRM) adoption by coastal communities and the socioeconomic and cultural impacts of DFIRM adoption. Additionally, the researchers will develop best practices for DFIRM adoption that minimize negative outcomes and maximize long-term community resilience. DFIRMs are developed by the Federal Emergency Management Agency and used by local government in determining development issues.

Expanding the Production of Commercial Marine Finfish in the Northern Gulf of Mexico: Development of Novel Spawning Protocols for Difficult-to-Spawn Marine Fishes

Edward Chesney (LUMCON) and Glenn Thomas (LSG)

Florida pompano have moved to the forefront as a candidate for commercial aquaculture. However, important husbandry challenges remain. The influence of lunar light cycles is known to be important for spawning subtropical marine fishes, but has not previously been incorporated into spawning trials with pompano. This project will establish methods that promote the voluntary spawning of fishes, such as pompano, in captivity in order to bolster the aquaculture industry and improve hatchery production efficiency and profit margins.

Using Long-Term Data Sets and Controlled Laboratory- and Field-Derived Data of Oyster Growth, Mortality and Recruitment to Refine a Dynamic Oyster Model for Predicting Optimal Conditions and Formulating Management Strategies for Sustainable Seed Production in Breton Sound, La.

Jerome La Peyre (LSU AgCenter), Thomas Soniat (UNO) and John Supan (LSG)

The success of the Louisiana oyster industry is due in large part to an effective public-private partnership in which the state manages public grounds for the production of seed oysters for transplant to private leases where they are cultivated and subsequently harvested. The limiting factor for oyster production in Louisiana is the availability of seed, and Breton Sound is the primary state seed ground. The objectives of the project are to predict oyster seed production, to establish fishing allocations and to understand the dynamics of key environmental and biological factors responsible for successful oyster recruitment in the Breton Sound area.

Role of the Protease Inhibitors of a Novel Protease Inhibitor Family in the Eastern Oyster Host Defense Against Dermo

Qinggang Xue (LSU AgCenter), Jerome La Peyre (LSU AgCenter) and John Supan (LSG)

Control of Dermo disease is a top priority for the oyster industry since it is associated with extensive oyster mortality. Marker-assisted selective breeding is a promising and proven technique with other organisms and is actively used with farm animals. Protease inhibitors are known to play important roles in animal host defenses. The oyster protease inhibitors to be studied in this project have the potential to be developed into specific markers that could be applied to selective breeding programs for oysters so that cultured offspring with enhanced Dermo resistance could be produced in a hatchery setting.

Decision Support to Local Governments in Budget Planning Under Coastal Risk in Louisiana

Matt Fannin (LSU AgCenter), Carole Franze (LSG) and Joshua Detre (LSU AgCenter)

The comparative financial health of coastal parishes before and after Hurricanes Katrina and Rita will be measured in order to evaluate local governments' financial vulnerability to future tropical storms. Several parishes will be used as case studies to estimate an optimal level of monetary reserves needed to address recovery costs following a hurricane. Additionally, a *Resiliency in Local Government Financing Under Coastal Risk Manual* will be developed.

Wetland Restoration with Sediment Conveyance: An Experimental Approach to Reduce Uncertainties in Attaining Successful Restoration

Irving Mendelssohn (LSU), Sean Graham (LSU) and Mark Shirley (LSG)

Researchers will develop protocols for a prototype mini-dredge that can be used by landowners and resource agencies for marsh restoration and rehabilitation via sediment conveyance; test metrics by which successful restoration of low-salinity, high organic coastal wetlands can be evaluated; and determine the critical sediment subsidy threshold that promotes functional equivalency between restored and natural marshes.

Development of Safe, Convenient and Frozen Oyster Products for the Frozen-Ready Meal Market Segment

Subramaniam Sathivel (LSU AgCenter), Beilei Ge (LSU AgCenter), David Bankston (LSU AgCenter) and John Supan (LSG)

The goal of the project is to develop new, high-quality, value-added, safe products containing both oysters and vegetables that are microwavable, tasty and convenient. The project's specific objectives include: determining the processing protocols to make ready-meal oyster products, developing cooking instructions, evaluating product shelf life, testing product acceptance, and analyzing production design and costs. Microwaveable oyster meals could potentially bolster the Louisiana oyster industry and create new jobs in that sector.

Nitrogen Mass Balance in Wetlands Receiving Diverted Mississippi River Water: Utility to Development of Conceptual Ecological Models

Robert Twilley (LSU), Victor Rivera-Monroy (LSU), Azure Bevington (LSU) and Carole Franze (LSG)

The ability of coastal managers to implement large-scale sediment delivery from Mississippi River diversions is currently limited by concerns about high levels of inorganic nutrients, particularly the nitrate compounds, found in the water. Previous research on the fate of nitrates entering intertidal marshes is inconclusive and has failed to account for observed removal through conversion to nitrogen gas. This will be the first study to conduct a mass balance of nitrogen in all the ecosystem components of an intertidal habitat receiving diverted Mississippi River water. The results will be applicable to development of a nutrient biogeochemical cycling conceptual ecological model for deltaic systems and will help to strengthen current models of aquatic and wetland productivity.

Rapid Concentration and Detection of Enteric Viruses in Seawater

Marlene Janes, (LSU AgCenter), Janet Simonson (LSU AgCenter) and Lucina Lampila (LSG/LSU AgCenter)

Reducing the risk of illness from eating tainted shellfish is both an economic and public health concern. However, detecting the pathogens that can sicken consumers can be difficult. Viruses persist longer than harmful bacteria in seawater and shellfish, and they take considerably longer for shellfish to eliminate. While the presence of coliform bacteria in shellfish-growing areas is an indicator of bacterial pathogens, the relationship between bacterial cues and the presence of enteric viruses such as Hepatitis A or Norwalk viruses is poorly understood. Consequently, if a harvest area becomes contaminated, there is a strong possibility that viral pathogens remain in the growing waters long after bacterial pathogens disappear. Several studies indicate a correlation between the presence of F-specific RNA phages and enteric viruses in shellfish. The overall goal of this project is to develop a rapid enteric viral indicator method that correlates to the presence of Hepatitis A and/or Norwalk viruses in shellfish growing areas. It will be a two-stage process, which will entail sampling large volumes of water and concentrating the phages, followed by developing field detection method to identify the presence of any F-specific RNA phages.

Proposal Process

The LSG omnibus proposal solicitation process began in late 2008 with a call for statements of interest that addressed topics in the program's current Strategic Plan. Thirty-seven statements were received, which were reviewed by an 11-member screening panel. The authors of the 17 highest ranked statements were invited to submit full proposals. However, authors of the lower ranked statements were advised that any full proposal submitted would be fully and fairly evaluated. Twenty-four proposals were received by the deadline for submission. All of the full proposals were subsequently examined by either two or three external peer reviewers.

An eight-member technical review panel convened to review and score the entire set of full proposals. Prior to the technical review panel meeting, each panel member was assigned up to seven full proposals to review, so that each proposal and its accompanying external reviews would be read by at least two panelists. No consensus ranking discussions were held, but each panel member was asked to rank the proposal on a scale of 1-4, and a composite average score was determined for each submission.

"The people on our review panels make difficult judgements," said LSG Executive Director Chuck Wilson. "We are extremely grateful to them and to their colleagues who provided peer reviews of the proposals. Through the many steps in the selection process, we can be assured that Louisiana Sea Grant-funded research will help us meet the goals outlined in our new strategic plan."

On the Web:

Louisiana Sea Grant Strategic Plan
http://www.laseagrant.org/pdfs/StrategicPlan_09-13.pdf

Louisiana Sea Grant Research Database
http://appl003.lsu.edu/seagrant/collaresh.nsf/About?OpenForm

Bourgeois Remembered for His Guidance, Dedication

The Louisiana Sea Grant family suffered a profound loss this past holiday season. Associate Fisheries Agent David Bourgeois died suddenly on Dec. 22, 2009, at his home in Thibodaux. He was 57 years old.

David began his career at LSU 11 years ago when he was hired as an assistant parish agent. He was promoted to associate agent in 2004 and served in Lafourche and Terrebonne parishes for LSG and the LSU AgCenter.

Professionally, he will best be remembered for his work with school children and his many efforts in coastal restoration in Louisiana.

David Bourgeois

"David was the co-creator of the LSU Coastal Roots Program back in 1999 and one of the three co-directors when the program transitioned into the LSU College of Education in 2006," said Pamela Blanchard, assistant professor in the College of Education and the director of Coastal Roots.

"Through these past 10-plus years, he was a positive guiding force for the program. David's sense of humor, love of Louisiana wetlands and his expertise on coastal issues will be especially missed. He was a good friend and one that I will miss very much."

LSG Marine Extension Director Glenn Thomas said David's passing will be felt throughout Sea Grant and beyond. "He approached his job with a smile and a positive attitude that invited cooperation. His Extension activities exposed thousands of youngsters in his region to coastal science and important coastal issues."

"David exemplified the spirit of the Marine Extension agent," said LSG Executive Director Chuck Wilson. "He was patient, engaging, knowledgeable, and had wonderful interpersonal skills. He will be remembered for many of his contributions to Sea Grant and the community that he lived in and loved."

David is survived by his wife, Lynne; children, Elizabeth and Jake; and granddaughter, Aleah.

New Statewide Fisheries Specialist Named

Julie Anderson is the new statewide fisheries specialist for Louisiana Sea Grant and an assistant professor of fisheries management with the LSU AgCenter School of Renewable Natural Resources.

Anderson, who is coming to Sea Grant from the College of Marine and Earth Studies at the University of Delaware (UD), begins her new duties in March. She earned a bachelor of science degree in biology from Truman State University in Missouri and her doctorate in marine biology-biochemistry from UD.

"Julie will make an excellent addition to the Sea Grant team," said Glenn Thomas, LSG Extension director. "Her research skills are superior and she has an extensive background in marine sciences. She also has great interpersonal skills and will work well with Sea Grant stakeholders."

Anderson's research has focused on invasive crab species and the chemical cues that encouraged their settlement and their spread along the East Coast. She also has coordinated a crab conservation research project involving UD, Delaware state government and private industry.

"I enjoy teaching marine science and conservation to professional audiences and the general public," Anderson said. "I'm very comfortable clarifying the threat of invasive species, and I've even had the opportunity to work with an international film crew and local media explaining the horseshoe crab conservation project on which I worked.

Julie Anderson

"I'm excited about my new association with Louisiana Sea Grant, and I can't wait to start," she added.

Anderson's duties with Sea Grant will include serving as the coastal and marine specialist in all matters pertaining to sustainable fisheries management, with an emphasis on marine crustaceans. She will help address issues such as essential fisheries habitat, fisheries policy and management, and natural and aquaculture marine fisheries interaction.

She replaces Thomas, who served as statewide fisheries specialist for two years until becoming Extension director in mid-2009.

Sea Grant Communications Receives Two Awards

Paula Ouder, an editor in Louisiana Sea Grant's Communications Department, received a first-place award in the Electronic Media category in the Louisiana Outdoor Writers Association's 2009 Excellence in Craft competition for her contributions to "Reflections on Chandeleur." The Web site features a series of slideshows, recorded interviews and informational text that serve as an oral and pictorial history of the Chandeleur barrier island chain, which suffered massive erosion from recent storms. One segment focuses on the 102-year-old lighthouse at Hewes Point that was toppled and lost during Hurricane Katrina. The project can be viewed online at *www.laseagrant.org/lighthouse/*.

The National Oceanic and Atmospheric Administration's Gulf of Mexico Marine Debris Project received a second-place Gulf Guardian Award in the Partnership category from the Environmental Protection Agency's Gulf of Mexico Program. LSG was recognized for its outreach work in support of the project. The multi-year program used sonar to survey roughly 600 square nautical miles of nearshore waterbottoms in Louisiana, Mississippi and Alabama to locate and map marine debris deposited during the 2005 hurricane season.

Debris coordinates and other related information were posted online (*http://gulfofmexico.marinedebris.noaa.gov/*) so they could be accessed by recreational and commercial fishers and boaters and be utilized by the agencies tasked with removal.