

Becker Retires from Louisiana Sea Grant

He arrived in Baton Rouge in September 1970 with no thought of staying at LSU more than two years. Forty years later, Louisiana Sea Grant Associate Executive Director Ron Becker has decided to retire



Ron Becker

– although he still plans to maintain a productive relationship with the program as long as he can.

“Ron’s knowledge of Louisiana Sea Grant literally spans the program’s history,” said LSG Executive Director Chuck Wilson. “He’s a critical component of our corporate memory. And although he officially retired on Sept. 1, I know he’ll still be down the hall when we need him.”

In 1968, LSU recruited Jack Van Lopik from Texas Instruments to organize a Sea Grant program for Louisiana and become its first director. Van Lopik took a two-year leave of absence from TI in Dallas to get the program rolling, and later coaxed Becker, also at TI, to join him in Baton Rouge.

“Jack asked me to come and help him get this thing off the ground,” Becker recalled. “I didn’t really intend to stay, but as things worked out, I did.”

“I hired Ron to work for Texas Instruments because of his extensive knowledge and varied experience,” said Van Lopik, who retired in 2004. “His keen mind and attention to detail also made him invaluable in launching Louisiana Sea Grant.”

The opportunity to build a comprehensive marine science program at LSU proved irresistible to both men. Together, they helped establish the Center for Wetland Resources, now the LSU School of Coast and the Environment, as an academic home for new lines of research that did not fit the disciplinary molds of established departments and colleges. “Sponsored research really hadn’t taken hold at LSU prior to Sea Grant’s arrival,” said Becker. “LSU didn’t think of itself as a research university at that time. Many faculty members who could have done sponsored research during the summer term would seek out consulting assignments, or work for NASA, or do just about anything except pursue competitive research grants. Sea Grant gave them a new opportunity to learn what sponsored research is all about and what it takes to be successful.”

“Ron has helped Sea Grant invest in new ideas and guide their development along trajectories that make them successful,” said Wilson. “He sees a problem, identifies scientists who can address it and matches the opportunity with the funding to bring it all to fruition. He particularly enjoys bringing researchers from different disciplines

Louisiana Sea Grant Receives APEX Award

The Louisiana Sea Grant College Program Communications office is the recipient of a 2010 APEX Award of Excellence for its series of oral history web films, *Reflections on Chandeleur*.

Accessible only by boat or by air, the 50-mile Chandeleur Island chain has a colorful history both geologically and in terms of human use. Arcing below coastal Louisiana and Mississippi, the barrier islands’ shifting sands buffer the mainland from hurricane winds and storm surge. It was the site of a yellow fever quarantine station in the 1800s. President Theodore Roosevelt established

Breton National Wildlife Refuge on the islands in 1904 to protect egrets and other shorebirds that were being slaughtered for their plumage.

Sadly, a significant part of the islands was lost on Aug. 29, 2005. After weathering numerous storms, the 102-year-old steel lighthouse at the northern tip of the chain succumbed to Hurricane Katrina. The land at Hewes Point where the structure stood had been eroding for years. Katrina’s violent winds and waves scoured away the last bit of terra firma at the light’s feet and sank it in Chandeleur Sound.

together to work on problems of mutual interest, for example, teaming a microbiologist with an engineer to demonstrate a new sewage treatment concept.”

Becker’s ability to see problems in a different light and recruit capable researchers to solve them has helped to facilitate research projects that cover a broad range of topics: red drum, water filtration, particle capture, oil spill impacts, dioxins in menhaden oil, cancer fighting compounds in seafood, and more.

“He has knowledge of so many things – geology, microbiology, geophysics and chemistry. It is remarkable how he can recall things and explain them because he has developed a great sense of curiosity. That might be the engineer in him,” said Wilson. Becker earned a geological engineer degree from the Colorado School of Mines and spent six years on active duty in the U.S. Army Corps of Engineers. His service assignments included combat engineer units in Japan and Korea, and a mobile geodetic survey detachment created before the invention of modern Global Positioning Systems to provide the Army Map Service with precise global positioning capabilities. Later, Becker studied geotechnical engineering at Purdue University, where he earned a master’s degree and completed PhD course requirements.

Becker plans to remain active with Louisiana Sea Grant in an advisory capacity, helping to review proposals and investigate new systems for program planning and evaluation. He sees opportunities for LSG in offshore aquaculture, alternative energy, and oil spill response and recovery. “Louisiana certainly can and should become a leading center for oil spill technology,” he said.

Becker’s knowledge, experience, and enthusiasm earned him the first Lifetime Achievement Award from the American Fisheries Society – Louisiana Chapter, which he received in 2006.

“Starting with Sea Grant when it was small, and hustling to meet the program’s ever-changing needs, has been a powerful learning experience,” said Becker. “There’s always been an entrepreneurial feeling about this program that appeals to me – much like starting a family business and helping it grow into a large company.

“In this environment, you learn to be resourceful and resilient. You do whatever it takes to keep things moving and you never stop scrambling because the program’s national priorities continually change. Comparing notes and consulting with peers from the other 30-odd programs in the Sea Grant network has been a growth and survival strategy. It takes all hands pulling together to keep the national network and its member programs afloat in a chronically challenged and politicized fiscal environment.”

To keep the history of this isolated locale alive, Louisiana Sea Grant collected images and recorded fishermen’s, naturalists’ and scientists’ recollections of its past in *Reflections on Chandeleur*. The website (www.laseagrant.org/lighthouse) features brief movies, photographs, oral histories and information on the islands.

More than 3,700 entries in 11 major categories were submitted to the 22nd Annual Awards for Publication Excellence (APEX) competition, sponsored by Communications Concepts Inc.



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Louisiana Unified Coastal Community Calendar Launched

The goal of the Louisiana Unified Coastal Community Calendar (LUCC) – pronounced Lucy – is to provide web visitors with one location where they can find all Louisiana wetland outreach activities, including symposiums, conferences, meetings, educational and volunteer opportunities, as well as related support materials. The address is <http://lacoast.gov/calendar/>.

State and national agencies – along with local governments, approved NGOs and other organizations – can post information directly to the calendar and have it uploaded immediately. Visitors can view and search all events.

“The idea sprang from a similar calendar that South Carolina Sea Grant created several years ago,” said Katie Lea with Louisiana Sea Grant. “We really needed a partner to make ours happen, and that’s where CWPPRA came in. Susan Bergeron and her team saw the value of the calendar and provided the technical expertise needed to make it happen.”

Organizations that wish to partner in the project so they can post to the calendar must complete an application and be approved by the LUCC steering committee. The general criteria for partnership are:

- a federal or state government organization, or
- a non-governmental organization that holds several public, non-political events a year.

Events posted on LUCC must:

- be pertinent to the coastal community and
- be sponsored by an agency that is part of the LUCC community, or if an event is not sponsored by an agency that is part of LUCC, the event must be approved by the steering committee.

For information about LUCC, contact Lea at klea@lsu.edu or Bergeron at bergeronS@usgs.gov.

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Anniversary of Sister Storms Marked

It’s been five years since Hurricanes Katrina and Rita ravaged the Gulf Coast. Many residents have restored or rebuilt their homes, others have moved to new neighborhoods or nearby cities, while others abandoned south Louisiana altogether. The fishing and way of life continue, but tenuously for some. Louisianans have proven they are resilient, but subsequent challenges like Hurricanes Gustav and Ike and the BP Deepwater Horizon oil spill can cause one to wonder, “How many more times do we have to prove it?”

Sea Grant checked in with three Marine Extension personnel who were the program’s “boots on the ground” after the storms to capture their thoughts on their communities then and now. **Kevin Savoie** is an area agent for the Southwest Region based in Lake Charles. His family and community were severely affected by Hurricane Rita. **Rusty Gaudé** is an area fisheries agent in Plaquemines, St. Bernard and Orleans parishes, who has constituents affected by both storms. **Mark Schexnayder** was a coastal fisheries advisor in St. John, St. Charles, Jefferson and parts of Orleans parishes who recently left Sea Grant and the LSU AgCenter for a position with the Louisiana Department of Wildlife and Fisheries.

What has changed in your community and among your constituents in the last five years?

KS: The population of Cameron Parish has been reduced by approximately 40 percent. The majority of the residents live in the northern part of the parish in the communities of Grand Lake and Hackberry. Fisheries infrastructure still remains in shambles.

RG: The spirit and morale of the people have been dealt another blow with the BP oil spill, and they’re vulnerable now because of PTSD (post-traumatic stress disorder) from Katrina. They’re vulnerable to additional traumas that feel like and are perceived as the same trauma as Katrina. We’re pretty beat up here.

MS: Everything has changed in some fashion. Some are actually positive, most are not. One positive is that the levee boards are now actively engaged in coastal restoration because they understand that how our wetlands function is as important as the levees.



A marker at Shell Beach in St. Bernard Parish memorializes those who perished during Hurricane Katrina. Photo courtesy Tim Osborn, National Oceanic and Atmospheric Administration

In what ways is your community the same as it was before the storm?

KS: The economy is still driven by oil and gas, fisheries and natural resources.

RG: Some of the important icons have endured. There are a couple of churches down river and some of the things that meant a lot to people – St. Patrick’s in Port Suphur survived, and the little church in Empire that was knocked off its foundation, they painted it and cleaned it up. It’s a symbol of endurance. Twelve people rode out the storm in the bell tower at St. Patrick’s. Every time I pass it, I think about that night and those people.

MS: I sense that we had a real opportunity after the storm to do things differently in the coastal restoration community. People are still highly energized.

Where is your community in the recovery process now?

KS: There has been some public infrastructure rebuilding and a few homes, but the costs, building restrictions and insurance are keeping many from returning to the lower part of the parish.

RG: They’re looking for income, and the income is at best ephemeral and erratic. Mother Nature won’t leave us alone long enough. This year was supposed to be one of the better years to get the fishing families out of the hole. It took them years to get the money to put their boats back together to go after the natural resource. It was supposed to be a good year, but we lost

access to the resource because of fisheries closures due to the oil spill.

MS: They’re anywhere from Kansas to fully recovered. It’s hard to say with an area this diverse. Some neighborhoods look normal. Other places are empty land with little or no recovery.

What have we learned from Katrina and Rita?

KS: We are much more vulnerable

than we ever thought. Coastal erosion and sea level rise are a reality.

RG: The breakdown in society is much harder to restore than the collapse or a blip in the natural resource. Restoration in the societal aspect of things can be completely independent of the resource. If the natural resource (shrimp) was worth the historic support price, then a lot of this stuff would go away.

MS: We learned how ill prepared we were and still are to deal with a catastrophe of this magnitude and how poor our building codes were in some places. We finally learned some of the true costs of coastal land loss in a tangible way.

Are we better prepared for future storm events?

KS: Everyone is acutely aware of hurricane preparedness and what needs to be done personally.

RG: Yes. I can say without doubt we are much wiser in our personal preparedness and our responses to impending climatic events. Just because we’re prepared does not mean we can take much more. It might be a whole generation before the kids forget all this foolishness and decide, “Wouldn’t it be great to fish for a living?”

MS: Yes, I think so – a lot of the rebuilding has been done much stronger,

(Continued next page)

much more resilient. The protection system at least is more robust.

What have been the long-term economic impacts of the storm in your area?

KS: Fishermen continue to struggle from loss of vessels, gear, homes and support infrastructure.

RG: Without the assistance packages that have gone through, there would be no community whatsoever. The untold billions of dollars that have been pumped into the two parishes I have focused on were critical to getting them back. Without that, we would not have a community, at all.

MS: It's impossible to calculate because you don't know where we would have been had the storm not hit. The population of New Orleans is not where it was before – it's still coming back. We had several storms after that, plus the catastrophic oil spill. The greater New Orleans area has come back much stronger than anyone could have predicted. In some ways it's better economically. The dynamics of New Orleans are different from before, like green awareness and recycling. The volunteers coming in were as important as the government programs for rebuilding and physically lending a hand. We still have groups of volunteers coming in. Economically, the recovery is related to the resources people had to work with. Affluent areas are really coming back. Other places with retirees and older people didn't come back. You can still drive around and see thousands of houses boarded up, and that's

just the ones that are still standing. There are many more that are just vacant lots.

How impacted were the fisheries and the fishing industry? Did they recover?

KS: The resource itself actually received a boost courtesy of the huge storm surge. The surge carried all of the fish, shrimp and crabs that were in the coastal waters of the Gulf of Mexico into the coastal marshes. The associated high tides in the fall of the year allowed many of these creatures to survive. All of the debris and decaying vegetation fed the larval and juvenile fish, creating a huge crop of seafood that lasted for a year. The seafood industry was devastated and was very zcslow to recover.

RG: The resource recovered rapidly; it was barely impacted after the storm. The harvest sector was nearly devastated. We had 85 percent of the fleet damaged. Some of those boats were a total loss; other people were able to make repairs and return to fishing. We're down a significant number of permits and licenses, so the harvest sector is numerically smaller than it was before, yet the poundage is roughly around the long-term average. With fewer people, we're pulling in about the same amount of product, and that helps to make ends meet because the product has been losing value. Relative to the price of gasoline, fishermen are losing ground. Overhead is increasing while income from shrimp is remaining stable or even decreasing in value.

MS: Obviously some people were just blown out of the fishery and they never got back in. The fishery itself as a whole – the catch – is back. The communities and the people catching it are different in some places. It took a lot longer to get that sector back than people thought. It's amazing how long things can take with the bureaucracy. And then came BP.

Name one positive change, revelation or event brought about by Katrina or Rita.

KS: The landscape of the Chenier Plain marsh was set back in a vegetative successional stage to grasses. The marshes revegetated quickly and became very productive in spite of the loss of some marsh to erosion.

RG: The fisheries sector has become more involved in decisions that are made in the community. They are front and center in meetings. The ethnic communities have really stepped up their participation as well. As a community, the ethnic groups, mostly Vietnamese, have elevated their self-esteem; they were the first people back, and they have a different familial adhesive than the Anglos. People really pull together in ways that I find admirable, especially in familial groups.

MS: I've always known that the people here are very resilient. People really put their heads down and got to work making changes in the levee districts and re-engaging in the community. So many people went through so much. It's remarkable to look at the houses now and realize some people lost everything. Coming back from that is amazing.

Do you have any other comments?

KS: I see less determination in people to return to their homes (pre-Rita). The struggle has dragged on for too long and they are tired.

A video made shortly after Hurricanes Katrina and Rita chronicling the professional and personal stories of Gaudé, Savoie and Schexnayder can be found at www.laseagrant.org/media/SisterStorms.wmv.

Louisiana Sea Grant Fields Two Knauss Fellows

Two Louisiana State University graduate students, doctoral candidate Amy Scaroni and master's student Lauren Land, are Knauss Fellows for 2011.

The Knauss Fellowship, sponsored by the National Sea Grant College Program, provides a unique educational experience to graduate students who have an interest in ocean and coastal resources and national policy affecting those resources. The program matches them with hosts in legislative or executive branch offices in Washington, D.C., for one year.

Scaroni, co-founder of the Student Wetland Society at LSU, will graduate in December with a Ph.D. from the School of Renewable Natural Resources. Her dissertation work examines the role of the Atchafalaya River Basin in reducing nutrient discharge to the Gulf of Mexico. She received a Master of Science degree in environmental studies from the College of Charleston, in South Carolina, and earned a Bachelor of Science in biology from Pennsylvania State University.



Amy Scaroni



Lauren Land

After completing her year in Washington, Scaroni intends to focus her efforts on conserving and restoring coastal wetland ecosystems for a non-profit or non-governmental organization.

Land also will graduate from LSU in December, with a Master of Science degree from the Department of Oceanography and Coastal Sciences. Her research interests are wetland soils, wetland restoration and coastal ecosystem management. She is devising a sediment stabilization technique as part of her master's research project. A Baltimore native, she earned her Bachelor of Science degree from the University of Maryland.

Land hopes to work within a branch of the National Oceanic and Atmospheric Administration (NOAA) following her fellowship.

Scaroni and Land are two of the 49 fellows selected nationwide for 2011. They were nominated for the Knauss Fellowship by the Louisiana Sea Grant College Program.

Falgout Joins LSG Extension

Julie J. Falgout is Louisiana Sea Grant's newest Extension assistant. She has been with LSU since December 2006 and most recently worked on outreach for the university's Department of Food Science. She brings 30



Julie Falgout

years of fishing experience to the position and says she is happy to continue working with members of Louisiana's fishing industry.

Falgout has first-hand knowledge of the seafood business through working with her husband, Dean. They owned and operated four 90-foot shrimp boats in the 1980s and

'90s, and the couple built their own 70-foot vessel.

"I married into a shrimping family and learned the business quickly," Falgout said. "The people are the best part of my job, whether it's shrimpers and their families or my coworkers here at Sea Grant. It's more like family."

Falgout's new job heated up quickly with the Deepwater Horizon oil rig disaster in April. She became the Sea Grant liaison embedded with the Unified Incident Command in Houma, where she helped coordinate various aspects of spill response. "There's so much rumor and innuendo out there regarding the oil, dispersants and the quality and safety of Louisiana seafood right now," explained Falgout. "Sea Grant is the trusted link for getting information out to the public."

4-H Junior Leaders Experience Marsh Maneuvers

Mark Shirley jokes that his family has grown accustomed to not having him around in July. The Louisiana Sea Grant and LSU AgCenter Marine Extension agent devotes the month to guiding 64 teens through Marsh Maneuvers – an intense, five-day, four-night, environmental camp. If hurricanes don't interrupt his plans, Shirley runs four consecutive sections of Marsh Maneuvers, each accommodating 16 high school 4-H Junior Leaders from a rolling roster of all 64 Louisiana parishes. Students are accepted based on nominations from their 4-H agents.

The program had a rather inauspicious start when 4-H members in Vermilion Parish wanted to take a trip but their treasury was low on funds. Instead of leaving town, they made arrangements to stay at a private camp on Vermillion Bay where they camped, crabbed and shined alligators for three days. That was 25 years ago, and Shirley has been with them all along.

"That went over so well, the following summer another parish wanted to bring a group over and it just kind of mushroomed from there," he explained.

Until six years ago, camp was held at the Louisiana Department of Wildlife and Fisheries marine lab on Grand Terre near Grand Isle. Marsh Maneuvers is cosponsored by LDWF, which now hosts campers at Rockefeller Refuge in Cameron Parish. The program is supported this year with part of a larger grant from the Louisiana Department of Natural Resources for wetland education.

Activities include boat tours, catching and cooking local seafood, water quality testing and getting dirty in a hands-on stewardship project. This year, participants transplanted smooth cordgrass into eroding mudflats along a canal near Avery Island and toured the Tabasco pepper sauce plant when their work was done. Campers also got a rare inside look at BP's oil spill response center in Intracoastal City where experts spoke about oil extraction, wildlife concerns, command center logistics and what went wrong aboard the Deepwater Horizon.



Angie Fusilier, a volunteer leader from Sacred Heart in Ville Platte, hands a bundle of smooth cord grass to Joshua Deshotel of Kinder High School for transplant to an eroding mudflat on Avery Island during Marsh Maneuvers.

In addition to the biology, ecology and sociology of Louisiana wetlands, Marsh Maneuvers presents a strong vocational message meant to pique student interest in professions that will have a positive impact on the coast.

"It's been a good cooperation among a lot of agencies and some private companies to support this effort," Shirley explained.

"It has paid off in the benefits of kids going on to college in different curricula related to the environment, marine science, wildlife management and science education. We have seen some of our alumni 10 or 15 years later go on to do things related to their experiences here as teenagers at Marsh Maneuvers camp."

LSG Extension Leader Glenn Thomas is pleased with Falgout's crisis-management skills and feels she is uniquely qualified to work in Marine Extension.

"Julie has several distinctive capabilities that help us increase the awareness of seafood quality," Thomas said. "She helped develop state-of-the-art seafood handling practices and is very familiar with the regulatory framework for commercial and recreational fishing. With the experience that Julie has running her own boats, she is up-to-date on regulations and the issues that affect seafood producers."

"Julie also is an active member of several seafood organizations, including the Safe and Sustainable Seafood Focus Team, and she brings her thorough and unique personal experience working with all the current leaders in Louisiana's seafood industries."

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Research Update

EnvironMentors Chapter Launched

Fifteen Scotlandville Magnet High School juniors will broaden their science education this academic year as part of LSU's recently established EnvironMentors chapter.

"The program increases students' environmental awareness and encourages them to pursue science, technology, engineering and math careers," said Susan Welsh, chapter director and a research associate in LSU's School of the Coast and Environment. "Although these are magnet school students, they're not part of the engineering magnet program at Scotlandville. They're typical students from typically under-represented backgrounds when it comes to college degree programs in the environment, natural resources and other science fields."

EnvironMentors is a national program, sponsored by the National Council for Science and the Environment, which pairs high school students otherwise unlikely to succeed in the sciences with faculty, graduate students and environmental professionals in one-to-one mentoring relationships. The LSU chapter is a cross-campus collaboration between the College of Education's GEAR UP program and Louisiana Sea Grant. GEAR UP is a federal program designed to increase the number of low-income students who are prepared to enter and succeed in college.

The 15 SMHS juniors will come to campus twice a week. They will meet with their mentors on a weekly basis, learn to work in a laboratory and use a college library, conduct basic research, as well as visit museums, aquariums and hopefully the Louisiana Universities Marine Consortium. "At the end of the school year, they'll present their research to elementary school students," added Welsh.

"We met in late August with our group, and they've all thought about college and what they want to do with their lives. They're talking about being environmental engineers or lawyers, and one wants to be an anesthesiologist, said Welsh.

"They've also asked if EnvironMentors can continue in their senior year, and that's our plan. We also want to expand it to other grade levels," she added.

EnvironMentors was established in 1992 in Washington, D.C., and now has nine chapters at universities around the country. Louisiana Sea Grant's 2011 Knauss Fellow, Lauren Land, and National Marine Fisheries Service/Sea Grant Marine Population Dynamics Fellow, Melissa Hedges Monk, wrote the proposal to establish the LSU chapter.

Oil Spill Creates Opportunity for Tulane Researchers

Tulane University researchers Caroline Taylor and Erin Grey began looking at recruitment of blue crabs – *Callinectes sapidus* – in November of last year. Then, the Deepwater Horizon oil spill began in April, changing the scope of their project.

"Blue crabs live most of their lives in estuaries, but the females move into the ocean to spawn," said Taylor. "Blue crab larvae spend about 40 days in the ocean and are carried by currents before they settle back into the estuaries. Consequently, blue crab megalopae (early-stage juveniles) don't end up where their mothers came from.

"As it turned out, the oil spill occurred in the middle of a spawning area and during spawning season," Taylor said.

The Tulane researchers quickly retooled their project to look at how oil might affect blue crab recruitment, and they received Louisiana Sea Grant and National Science Foundation funding for the revised effort. Their sampling area suddenly grew from sites in Louisiana and Mississippi to as far east as Apalachicola, Fla., to as far west as Galveston, Tx.

What they discovered surprised them. Tiny dark droplets, about one millimeter in diameter, were found under the shells of megalopae collected throughout the Gulf – a phenomenon never recorded before in decades of

blue crab research. "The droplets are hydrocarbons, suggesting oil," said Taylor.

"We don't know how the droplets got under the shells, and we don't know the long-term impacts. It may take years to determine the effects on blue crab populations and mortality," said Taylor. "We do know the megalopae are consumed by a number of marine species, and the droplets could bioaccumulate."

Of immediate concern to Taylor was the timing of the discovery. Tainted megalopae were discovered weeks before oil began washing ashore, suggesting to other scientists the oil might have been suspended in the water column and infiltrated near-shore areas long before it was actually detected at the surface.

The droplet discovery also created a research irony. Before the spill, high-resolution sea current modeling was used to simulate and predict blue crab dispersion throughout the Gulf. "Billions of blue crabs are spawned each season and most don't survive. It's impossible to tag them," said Taylor. Crabs with oil droplets create a unique marker that may allow researchers to test the accuracy of the computer model and better determine the range of blue crabs spawned in the Gulf of Mexico.

Charter Captains Queried

Every ten years since the late 1980s, recreational for-hire captains from Texas to the Florida Keys have been asked to complete a survey to gauge the impact of regulatory, economic and other factors on the structure and resiliency of the charter fishing industry. Texas A&M and the University of Florida administered the first two questionnaires. Louisiana Sea Grant is conducting the current survey, and the analysis of submitted 2009 economic data should be complete in the spring of next year.

"We're taking a snapshot of the Gulf charter fishing industry," said Sea Grant and LSU AgCenter economist Matt Freeman, who is funded through the Fisheries Extension Enhancement Program. Freeman is assisting LSG/AgCenter professor Rex Caffey and graduate student Michelle Savolainen with the project. "This lets us measure how healthy the industry is compared to the past, and in the future compared to today. It also provides good baseline economic information when making disaster damage estimates."

According to the U.S. Fish and Wildlife Service, approximately 2.48 million anglers purchased marine fishing licenses in 2006 in the five U.S. Gulf states. And many of those fishermen rely on the more than 3,300 guides and charter services in the Gulf to access coastal fisheries. "To date, we've received about 700 completed surveys from charter boat captains, which is a good percentage," Freeman said.

The information being collected includes captain and primary vessel characteristics, business structure and effort. "We're also capturing attitudinal responses to current and proposed fisheries management scenarios – catch share management and offshore petroleum exploration, for example," added Freeman. Questions in the current survey are structured similar to the previous inquiries, but there are additions. "Hurricanes Katrina, Rita, Gustav and Ike are being factored in," he noted.

Freeman hopes to present some preliminary findings during a conference in November, but some general observations have already surfaced. Eighty-seven percent of responding captains own their charter business, and 21 percent own two or more vessels. The median boat length, according to the early results, is 24 feet, and the average captain has been the skipper of his vessel for eight years.

"Although the survey is usually conducted every 10 years, the next one may need to be done sooner to take into account the Deepwater Horizon oil spill," added Freeman – a factor not being considered since this assessment looks only at 2009 data.