



FOR IMMEDIATE RELEASE

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Sea Grant awards research funding

Fuel from seafood-processing waste products, population growth's effects on ecosystems and stronger construction materials for homes are just a few topics of research projects that recently received funding from the Mississippi-Alabama Sea Grant Consortium (MASGC).

From a field of 18 proposals, MASGC selected nine research projects to fund for its 2008- 2010 budget cycle. MASGC also has teamed up with Sea Grant programs in Florida, Louisiana and Texas to fund two regional projects.

The following projects received funding through the peer-reviewed, competitive funding process. Funding amounts include Sea Grant funds and required matching funds.

- Todd French, Rafael Hernandez and Hossein Toghiani of Mississippi State University will determine the most effective process for converting the carbon in seafood processing waste into a biodiesel feedstock that could be a source of biofuel. This process could reduce processors' operational costs by eliminating some waste disposal costs and providing income streams from the sale of products generated from shrimp processing waste. \$195,356.
- Latif Kalin, Charlene LeBleu, Rebecca Retzlaff, Pan Susan and B. Graeme Lockaby of the School of Forestry and Wildlife Sciences of Auburn University will assess the effect of land use/cover on the water quality of the Fish River, a major water supplier. They plan to develop population projections and zoning maps that will aid local authorities in making science-based decisions regarding environmental and ecosystem health. \$281,833.
- Using acoustic technology, Eric Hoffmayer, James S. Franks and Bruce H. Comyns of the Department of Coastal Sciences at The University of Southern Mississippi Gulf Coast Research Laboratory will identify and map the spawning habitats of one of the most highly prized inshore game fish throughout the northern Gulf of Mexico: spotted seatrout (better known as speckled trout). This project, to be conducted in the Mississippi estuaries of Grand Bay and Biloxi Bay, will complement a spotted seatrout stock enhancement project currently under way and will help fishery resource managers develop improve supervision of the species. \$212,407.

- R. Douglas Watson of The University of Alabama at Birmingham's Department of Biology will study the possibility of using a cloned blue crab molting gland receptor that could induce molting in blue crabs. The process could provide an abundant and predictable supply of soft-shelled crabs and could benefit economies in states with existing or potential soft crab fisheries. \$100,000.
- D. Allen Davis and Luke A. Roy of Auburn University's Department of Fisheries and Allied Aquaculture, will work to provide west Alabama shrimp farmers with information about salinity and temperature tolerance of post-larval and early juvenile state shrimp. The information will help increase survival, growth and production of inland low-salinity farms. The information will help provide income to a depressed region of Alabama and will be applicable to other cultured species that can survive in waters in a wide range of salinity. \$211,535.
- Julia A. Cherry of The University of Alabama and Christopher A. May of the Grand Bay National Estuarine Research Reserve will address the lack of understanding of the effects of prescribed burning, a common management practice for many ecosystems. The findings will provide insight into the effectiveness of prescribed burning as a management strategy and the relative importance of biogenic accretion for the maintenance of marsh habitat. The data can also be used to evaluate the effectiveness of fire for removal of debris after severe storms. \$160,289.
- Because wastewater treatment plants account for more than 30 percent of shellfish area closures in the United States and more than 70,000 acres in Mobile Bay, Ruth H. Carmichael of the Dauphin Island Sea Lab will collect data that will examine the relationship between shellfish habitat, wastewater treatment plants and human health. This data will enhance coastal economies by helping to maintain and restore local shellfish populations, increase the area of land available for shellfishing and help processors learn to determine if shellfish is safe for consumption. \$99,995.
- Kevin S. Dillon and Richard Fulford of the Department of Coastal Sciences of The University of Southern Mississippi Gulf Coast Research Laboratory will study samples of spotted sea trout taken from Mississippi's Bay of St. Louis and Biloxi Bay to understand how changes in fish diet may be reflected in different sites and seasonal variances. These samples will be compared for differences, season and tissue type. The project will provide a baseline dataset for analysis of larger stable datasets collected to address specific questions about coastal ecosystems. \$25,766.
- Mark T. Hamann and Jiangnan Peng of The University of Mississippi are working to develop milder techniques to inactivate contaminants to extend the shelf life of oyster products and reduce the transmission of seafood-borne infectious diseases. They will test the use of dense phase carbon dioxide to treat oysters infected with *Vibrio* bacteria. \$24,130.
- Using state-of-the-art technology, high-strength fiber composites and a unique full-scale testing facility, Arindam Gan Chowdhury of Florida International University will work to remedy

hurricane-induced losses brought about from insufficiently built residential structures. The proposed research aims at the use of high-performance fiber composites in construction to form a barrier to winds of up to 140 mph. The proposed system would work by transferring wind forces from the building envelope to the frame and then to the foundation. \$300,000 (regional project).

- Nina Lam of Louisiana State University will develop models for post-Hurricane Katrina business return in New Orleans. By developing models and using first-hand survey data set collected after the storm, her findings could be useful in planning and policy development for economic recovery in the Gulf of Mexico. The models also will be beneficial to the Federal Emergency Management Agency, the Louisiana Recovery Authority and local planning agencies. \$300,886 (regional project).

MASGC is one of 30 university-based Sea Grant College Programs, which are of part of the National Oceanic and Atmospheric Administration and the U.S. Department of Commerce. Sea Grant is a federal, state and local partnership that helps communities apply practical solutions to coastal issues through competitive research, extension and outreach, graduate student training and K-12 education. MASGC works to foster a sustainable economy and environment.

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