RESEARCH AREAS

LUMCON's scientific mission is to promote, facilitate, and conduct research in marine and coastal sciences relevant to the sustainability of coastal and marine environments in the Gulf of Mexico.

The DeFelice Marine Center's location on the upper end of Terrebonne Bay and its proximity to the Mississippi River and Atchafalaya River deltas, extensive estuaries and coastal wetlands, and coastal waters to the deep-water Gulf makes it an ideal venue for field- and experimental-based marine science. An emerging delta (Atchafalaya) and a degrading delta (Mississippi) combined with complex coastal processes (coastal erosion and wetland degradation, and continued nutrient inputs into the coastal zone provide diverse opportunities and challenges for both pure and applied research that have implications for coastal restoration, flood control, and the vast living resources (oysters, shrimp, crabs, and fin fisheries) in the area. The Marine Center resident faculty and associated research staff comprise a group of established and talented scientists focused on basic research with broad societal applications. Focal areas of research currently include:

- addressing and documenting the impacts of coastal loss and restoration efforts in coastal Louisiana
- monitoring and assessing both the acute and chronic impacts of human activity such as climate change, hypoxia, and oil spills on coastal and marine systems
- understanding the flow of nutrients and energy through biological systems
- revealing the connections between the physical and chemical environment with the biological environment
- quantifying the ecological, taxonomic, behavioral, and physiological diversity of life and how such diversity is maintained and generated