

Coastal Barrier Island Network (CBIN): Management Strategies for the Future

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The Coastal Barrier Island Network (CBIN – <http://www.coastalbarrierisland.org/>), an interdisciplinary research group (Research Coordinated Networks, NSF), was established in 2008 to provide a forum for bio-geo-social scientists and managers to identify research questions and management strategies that will promote ecosystem sustainability, given the known transiency of barrier islands and a future with sea level rise and increased storm impacts. A recent meeting on Galveston Island, Texas, provided the opportunity to evaluate management strategies while immersed in the aftermath of Hurricane Ike (Category 4 surge). From this meeting and an earlier workshop in Biloxi, Mississippi following Hurricane Katrina, six major priorities emerged that identified critical areas for future research and science-based management decisions for the Atlantic and Gulf Coasts of the USA and Mexico. These themes included: (1) balancing natural and human processes, (2) incorporating broad spatial and temporal scales to assess ecosystem sustainability and resilience, (3) use of economic valuation tools and rapid assessment methods to generate solutions, (4) initiating multiple stakeholder communication and collaboration, (5) developing more natural restoration ideas enabling greater geomorphic stabilization, and (6) developing a comprehensive and more unified conceptual framework for managing these critical coastal ecosystems. Overall, these priorities recognize that substantial urbanization has already occurred on many barrier islands, and will most likely continue into the future. However, improved management schemes could enhance both the sustainability of the ecosystem, and its critical services, as well as some degree of increased stabilization.