THE COASTAL BARRIER ISLAND NETWORK (CBIN)
Management strategies for sustainability

www.coastalbarrierisland.org

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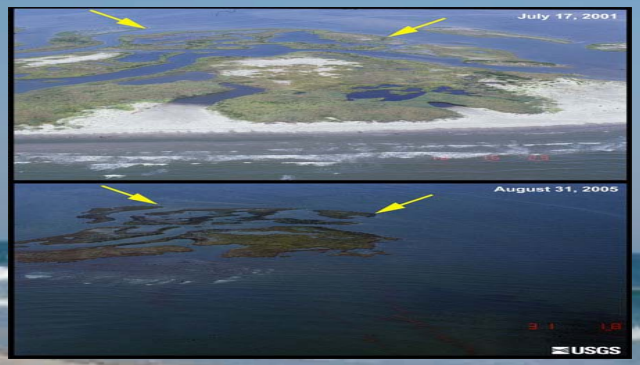
BACKGROUND & PURPOSE

Preservation of ecosystem services under continued anthropogenic development and global change, e.g. elevated sea levels and increased hurricane intensity. Emphasis on natural versus engineered solutions. Provide support for conferences, symposia, workshops, and classes.

The Coastal Barrier Island Network (CBIN) is a multidisciplinary, international research group established in 2008 with funding from the National Science Foundation, USA. This group serves as a forum scientists and managers to identify critical research questions and strategies promoting sustainability of ecosystem services provided by barrier islands of the Atlantic Ocean and Gulf coasts of the USA and Mexico.



MULTIDISCIPLINARY

Geology-Hydrology-Ecology-Tempestology-Economics-Sociology-Culture-Anthropology- Archeology-Government

RECENT ACTIVITIES

4/3-6, 2007 Post-Katrina workshop, Biloxi, MS
1/4-7, 2008 Post-Ike workshop, Galveston TX
1/6-8, 2010 Using Geologic/Biologic Enhancement, Avalon, New Jersey
5/2-4, 2010 Management Strategies workshop, Bald Head Island, NC
5/26-30, 2010 Restoration Inst, Coastal Ecosystems, Vancouver, Canada
Aug 8-2, 2010 AGU, Barrier Island Resiliency, Iquassu Falls, Brazil

PUBLISHED MANUSCRIPTS

Feagin, R.A., Smith, W.K., Psuty, N.P., Young, D.R., Martínez, M.L., Carter, G.A., Lucas, K.L., Gibeaut, J.C., Gemma, J.N., & Koske, R.E. 2010. Barrier islands: Coupling anthropogenic stability with ecological sustainability. *Journal of Coastal Research* 25, in press.

Williams, AM, RA Feagin, WK Smith, NL Jackson. 2009. Ecosystem impacts of Hurricane Ike on Galveston Island and Bolivar Peninsula: Perspective of the Coastal Barrier Island Network (CBIN). *Shore & Beach* 77:1-8.

Rusty A. Feagin, Amy M. Williams . 2008.Sediment Spatial Patterns in a Hurricane Katrina Overwash Fan on Dauphin Island, Alabama, U.S.A.. Journal of Coastal Research: Vol. 24, No. 4, pp. 1063-1070.

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CHALLENGES & GOALS

-There are critical differences between natural and human-dominated barrier island landforms and ecosystems due to biophysical processes, spatial and temporal dynamics, and anthropogenic modifications.

-The processes that influence vulnerability and resilience of coastal barrier ecosystems must be better understood across a broad spectrum of spatial and temporal scales (micro/macro-scale).

-Economic valuation tools such as cost-benefit analysis and rapid assessment methods utilizing remote sensing, GIS, and field-validation techniques can be used to generate collaborative solutions for advocates of different stakeholder perspectives.

-We need new mechanisms for communicating more effectively with stakeholders (decision makers, government agencies, teachers, local public, developers, etc.) about emerging science and the implementation of management strategies.

-We also need to address the idea of managing for stabilization versus sustaining natural processes, along with a more integrated application of restoration alternatives that would include native flora and fauna.

-In the future, there is potential for the development of a unified conceptual framework for managing soft-sediment coasts, although there is much work to be done .

ACKNOWLEDGEMENTS

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