



# Habitat Conservation & Restoration Team

## Gulf of Mexico Alliance

Texas | Louisiana | Mississippi | Alabama | Florida

## Reversing the Downward Trend in Habitat and Ecosystem Services

Governor's Action Plan II Action Item: H-5

**Action:** *Monitor a Gulf-wide inventory of distribution, gain, and loss of coastal habitats and measure the ecosystem services they provide.*

### Sub-actions:

1. Deliver information on state and federal conservation and restoration projects to the habitat distribution database.
2. Translate technical assessments of how to value habitat ecosystem services.
3. Analyze and communicate gains and losses in habitat distribution and associated ecosystem services to Alliance stakeholders.

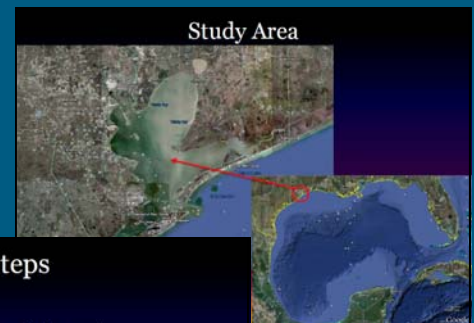
### Implementation:

#### Assessment of Changing Ecosystem Services Provided by Marsh Habitat in the Galveston Bay Region

The HCRT has partnered with the Harte Research Institute for Gulf of Mexico Studies to study the potential effects of sea level rise on ecosystem services in Galveston Bay, Texas. Identifying the service flows for each habitat type in the Galveston Bay area, then overlaying sea level rise projections under various scenarios and time frames will provide resource managers and local officials understandable information to base development and conservation decisions on. Assessing the productivity of ecosystems in terms of ecosystem services offers a view of tangible, and often quantifiable, factors to weigh against traditional economic development parameters. This can lead to more prudent and efficient outcomes for coastal communities. In addition to providing good information for Galveston-area officials, the HCRT will use the lessons from this endeavor to promote similar projects around the Gulf.

Sea level rise projections from the Galveston Bay SLAMM project conducted under GAPII action H-3 will serve as inputs for this project.

*See project presentations and newsletters at [www.gulfofmexicoalliance.org/working](http://www.gulfofmexicoalliance.org/working).*



#### Steps

- Identify ecological functions of salt marsh;
- Link ecological functions to ecosystem services provided by marsh habitat;
- Assess the change in value of the ecosystem services provided through a meta-regression;
- Create a heat map to visually represent the changes in ecosystem services values.

[www.gulfofmexicoalliance.org](http://www.gulfofmexicoalliance.org)