



# Healthy Ecosystems Team Summary Report

Bob Van Dolah

# Team Members

## Mentors:

- ▶ Michelle Duval (Lead Mentor) NC DENR
- ▶ Mary Conley TNC
- ▶ Christine LaPorte GA Coastal Research Council, UGA

## State Leads:

- ▶ Bob Van Dolah (Team Lead) SC DNR
- ▶ Anne Deaton NC DENR
- ▶ Pat Geer GA DNR
- ▶ Jan Landsberg FL FWC

## Federal Leads:

- ▶ Pace Wilber NOAA Fisheries
- ▶ Wilson Laney USFWS
- ▶ Tony Able/Jennifer Derby USEPA
- ▶ Mark Wolff USACE

# Team Members

## Other Participants:

- |                         |         |
|-------------------------|---------|
| ▶ Melissa Rada          | SC OCRM |
| ▶ Elizabeth Von Kolnitz | SC OCRM |
| ▶ Anna Toline           | NPS     |
| ▶ Roger Pugliese        | SAFMC   |
| ▶ Debra Hernandez       | SECOORA |
| ▶ Jennifer Dorton       | SECOORA |
| ▶ Vembu Subramanian     | SECOORA |
| ▶ Rua Modecai           | SA LCC  |
| ▶ Ken McDermond         | SA LCC  |

# Top Priority Actions

- ▶ **HE1A:** Develop coordinated state programs to *map distribution of key estuarine and marine habitats* and land use cover in coastal watersheds of each state, *and distribution of key species of management concern* using a common set of standards and attributes.
- ▶ **HE3A:** Initiate a joint federal–state agency marine spatial plan that *identifies the location of key coastal and marine resources and activities*.

# Top Priority Actions

- ▶ **HE1A:** Develop coordinated state programs to *map distribution of key estuarine and marine habitats and distribution of key species of management concern*

## Approach:

- **Early Team Decision:** Focus *initially* on ocean resources (beach to shelf break / EEZ)
- **Rationale:** Resources of most common concern among the states  
More likely to have common management needs / issues  
Less complicated data sets, many of which are regionally important  
Estuarine and upland management issues are more state specific  
These data layers are still very important, second phase

# Top Priority Actions

- ▶ **HE1A:** Develop coordinated state programs to *map distribution of key estuarine and marine habitats and distribution of key species of management concern*

## Approach: (Year 1)

- Conduct an analysis of key habitats and resources that have been or are being mapped by each state
- Convene workshops of resource managers and scientists
  - Identify resources of common concern
  - Identify data attributes desired or possible
- Initiate inter-state GIS workgroup to resolve standards, ensure compatibility

# Top Priority Actions

- ▶ **HE1A:** Develop coordinated state programs to *map distribution of key estuarine and marine habitats and distribution of key species of management concern*

## Approach: (Year 1)

- Conduct an analysis of key habitat and resources that have been or are being mapped by each state (Completed)
- Convene workshops of resource managers and scientists (Not completed, funding needed, some overlap with SECOORA effort)
- Initiate inter-state GIS workgroup to resolve standards, ensure compatibility (Not completed, funding needed, some overlap with SECOORA effort)

# Top Priority Actions

- ▶ **HE1A:** Develop coordinated state programs to *map distribution of key estuarine and marine habitats and distribution of key species of management concern*

## Approach: (Year 1)

- Conduct an analysis of key habitat and resources that have been or are being mapped by each state (Completed)
- Convene workshops of resource managers and scientists (Not completed, funding needed)
- Initiate inter-state GIS workgroup to resolve standards, ensure compatibility (Not completed, funding needed)
- **Map Habitats/resources agreed upon in coordinated, consistent GIS framework (Year 2, Initiated)**

# Top Priority Actions

- ▶ **HE3A:** *Initiate* a joint federal–state agency marine spatial plan that identifies location of key *coastal and marine resources* and *activities* for incorporation into multi–use management decisions

## Approach: (Year 1)

- Identify locations and scope of coastal/marine activities likely to benefit from interstate coordination of planning, implementation or monitoring
- Prioritize resources currently in greatest need of conservation or restoration

## Top Priority Actions

- ▶ **HE3A:** *Initiate* a joint federal–state agency marine spatial plan that identifies location of key *coastal and marine resources* and *activities* for incorporation into multi–use management decisions

### Approach: (Year 1)

- Identify locations and scope of coastal/marine activities likely to benefit from interstate coordination of planning, implementation or monitoring  
(Partially completed)
- Prioritize resources currently in greatest need of conservation or restoration  
(Not completed)
  - For coastal ocean waters, many are self evident (e.g. coral reefs, hard bottom habitat, MPAs, overfished species, etc.)
  - Original intent of restoration more focused on inland habitats and resources in need of protection/ restoration – current focus of team is on nearshore and offshore waters.

# Team Products to Date

- ▶ Team developed a template for use across all four states in assembling listing of known data sets and their relevant characteristics
  - Excel spreadsheets for four categories (Biological, Habitat, Coastal Uses & Event data)
  - Information on extent of data, time frame, data format, source, contact, etc.
  - Supports both HE1A, HE3A

## Team Products to Date

- ▶ Team developed a template for use across all four states in assembling listing of known data sets and their relevant characteristics
  - Excel spreadsheets for three categories (Biological, Habitat, Coastal Uses)
  - Information on state, extent of data, time frame, data format, source, contact, etc.
  - Supports both HE1A, HE3A
  
- ▶ Information has now been compiled to the extent possible
  - Identifies both tabular data that has spatial information, and GIS data sets
  - Also includes tabular data that may not or does not have spatial information

# Team Products to Date

## ► Biological Data

- Regional fishery independent finfish data sets (MARMAP, SEAMAP)
- Regional fishery dependent data (NMFS)
- State fishery independent and dependent data (e.g. finfish survey, shrimp landings)
- Right whale aerial survey data
- Turtle nesting and juvenile in-water distribution data
- Sea bird nesting locations
- Piping plover overwintering habitat
- Benthic community data (limited)
- Coral reef evaluation data (FL only)
- Queen conch distribution (FL only)
- Spiny lobster data (FL only)
- Planktonic data (generally not available)

# Team Products to Date

## ▶ Habitat Data

- Hard bottom and coral reef, worm reef distribution
- Shallow banks and shoals (FL only)
- Submerged Aquatic Vegetation (limited )
- Bottom sediment type e.g. soft bottom characteristics, sediment depth (limited)
- Bathymetry
- Marine protected areas
- Marine ecosystem management areas
- Reserves and Sanctuaries
- Manatee protection areas
- Right whale critical habitat (GA, FL only)
- Environmental sensitivity areas (FL only)
- Shrimp closure areas (FL only)
- Wind energy data
- Contaminants (limited)

# Team Products to Date

## ▶ Coastal Uses

- Artificial reef permitted areas and reef locations
- Commercial harvest data (shrimp and finfish)
- Mandatory Right Whale reporting areas (FL only)
- Shoreline data
- Hard shoreline data (FL only)
- Ocean disposal areas
- Beach nourishment locations (not all in GIS)
- Sand borrow sites (limited)
- Storm water / waste water outfalls
- Maintained channels
- Cable locations
- Military activities (NC and SC)
- Shipwrecks
- Shipping Activities
- Regulatory lines and boundaries
- Fishing piers
- Ocean observing systems

# Team Products to Date

## ▶ Event Data

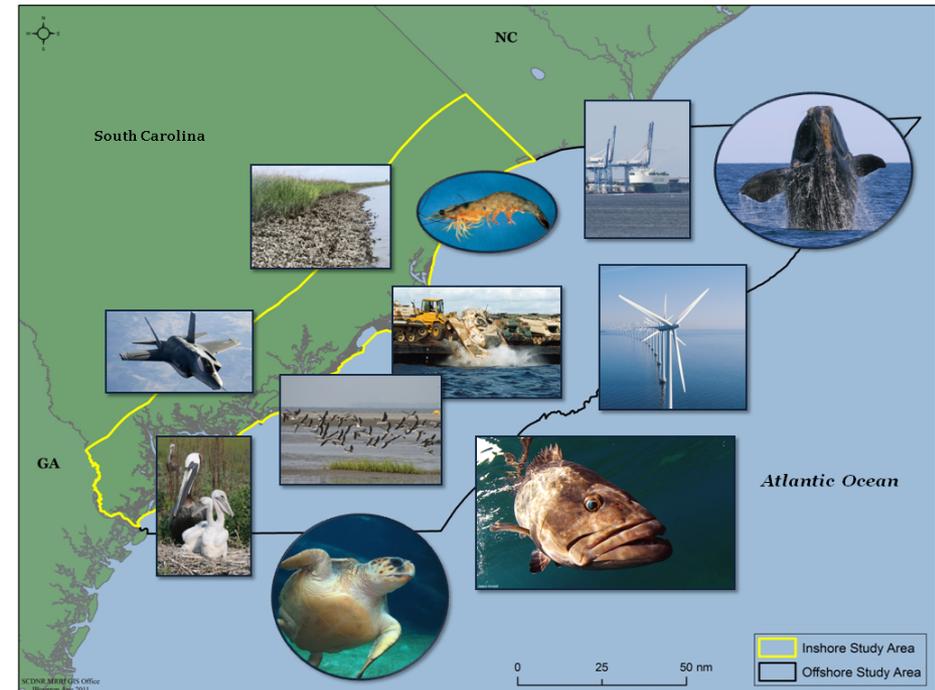
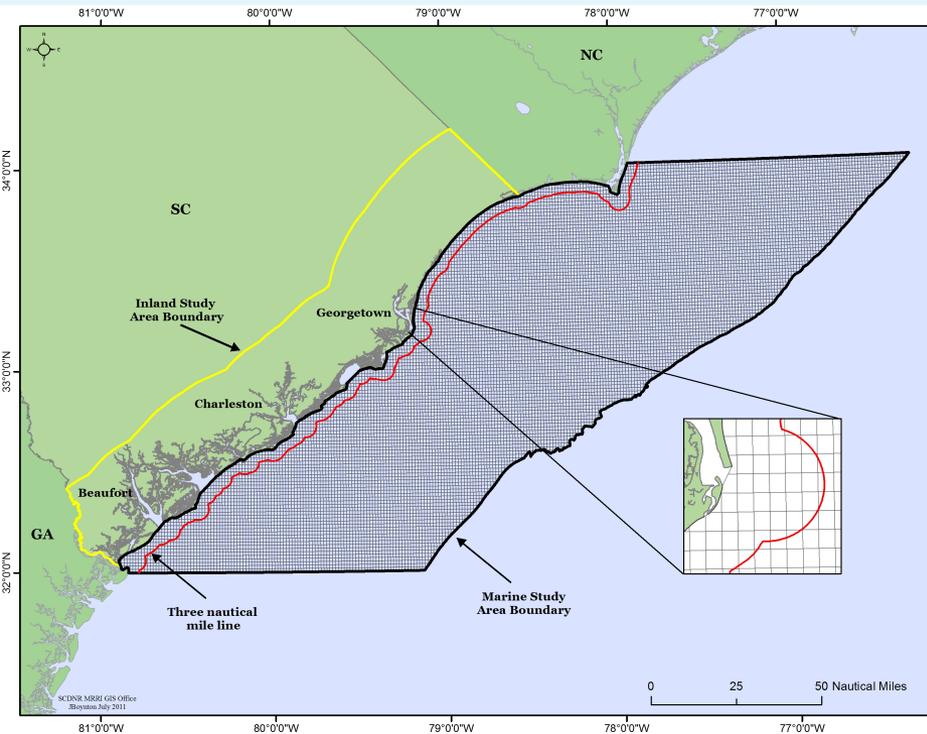
- Strandings
- HAB events (partial)
- Fish Kills (partial)
- Beach Closures
- TS Landfalls and tracks
- Sea Turtle takes by dredge
- Wrecks and obstructions
- Gulf stream locations

# Current and Future Activities

- ▶ HE Team plans to complete mapping of ocean resources on hold until funding available to fund next steps
- ▶ Some mapping efforts can begin through other funding
  - Will not address all of the desired data layers

## Current and Future Mapping Efforts

- ▶ **SCDNR:** Funding – State Energy Office Wind Energy Project
  - Completed comprehensive GIS maps of biological resources, coastal habitats, coastal uses 32° – 34° N



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  - Completed comprehensive GIS maps of biological resources, coastal habitats, coastal uses 32<sup>o</sup> – 34<sup>o</sup> N
- ▶ **SECOORA:** Funding – NOAA Regional Ocean Partnership
  - SCDNR expanding Ocean GIS layers to include all states
    - Biology: MARMAP, SEAMAP, Sea Turtle, Right Whale, Bird Nesting
    - Habitats: Existing information available for region in GIS formats
    - Coastal Uses: Commercial fishing activities, military activities, shipping lanes and activity, artificial reefs, ocean disposal areas
  - TNC expanding sediment mapping to include this region

# Current and Future Mapping Efforts

## ▶ SAFMC:

- Has compiled a number of important data layers for fishery management purposes

## ▶ TNC: Funding – South Atlantic Landscape Conservation Cooperative

- Will involve comprehensive mapping effort of habitats and resources – build upon what will be done through SECOORA, *and include inshore resources*
- Will involve the Healthy Ecosystem Team as the Project Steering Committee
- Includes other partners (e.g. NatureServe, ACFHP)

# Summary

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- ▶ Other funded activities will ensure continued progress relative to mapping initiatives
- ▶ Planned workshops to define priority data layers, data standards, level of data resolution, and compatibility have not occurred (lack of funding)
  - Some data layers may not be able to be vetted prior to development
  - Should not be a large problem as existing efforts are relying on best scientific input from experts and regional databases will be consistently analyzed

# Healthy Ecosystem Team

Questions?