Sea Grant
South Atlantic Regional Research Project (SARRP)

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http://www.gcrc.uga.edu/sarrp_temporary

NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce

Sea Grant North Carolina

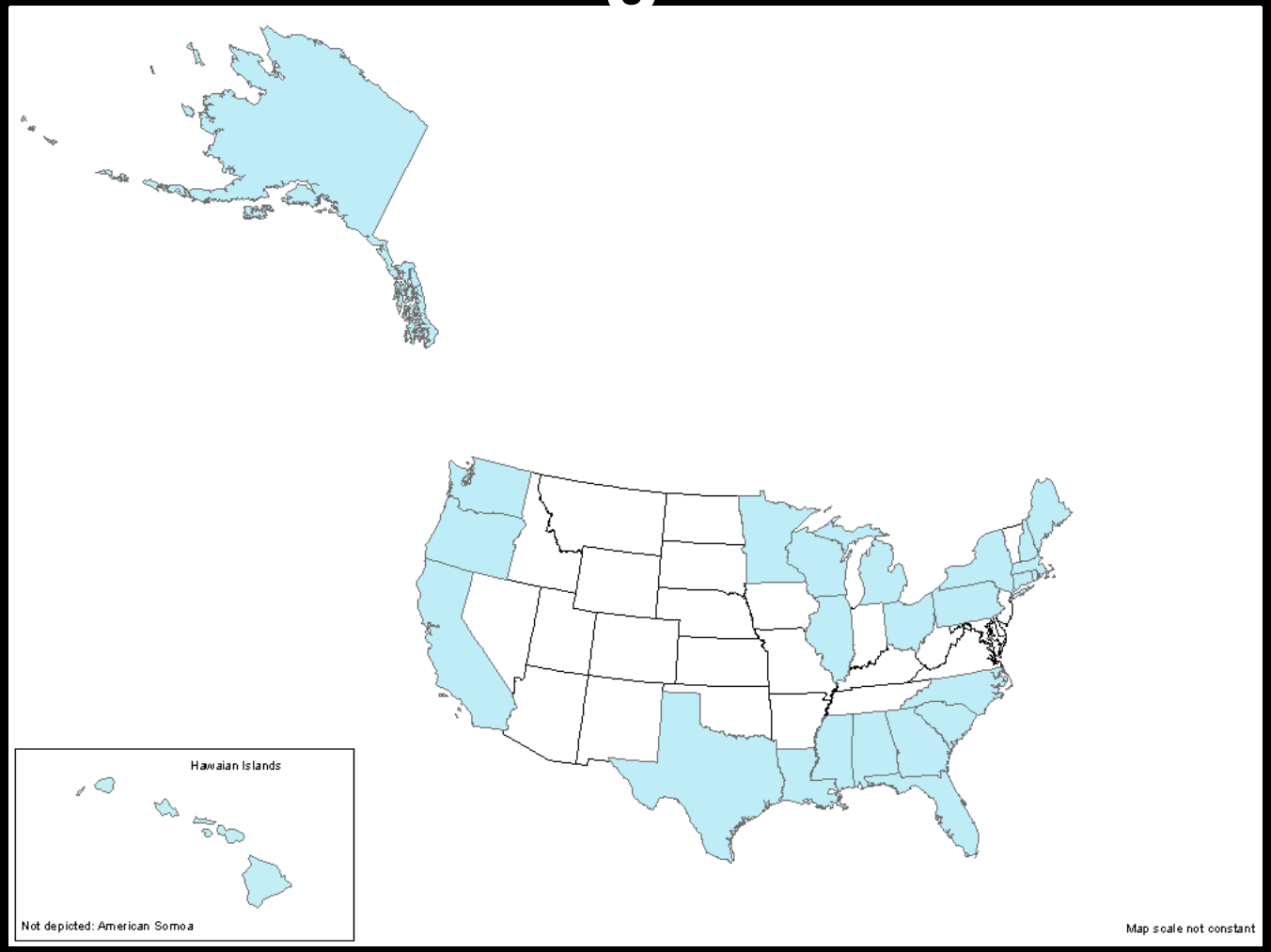
Sea Grant S.C. Sea Grant Consortium

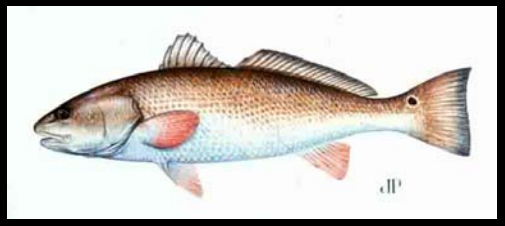
Sea Grant Georgia

Sea Grant Florida

GCRC Georgia Coastal Research Council

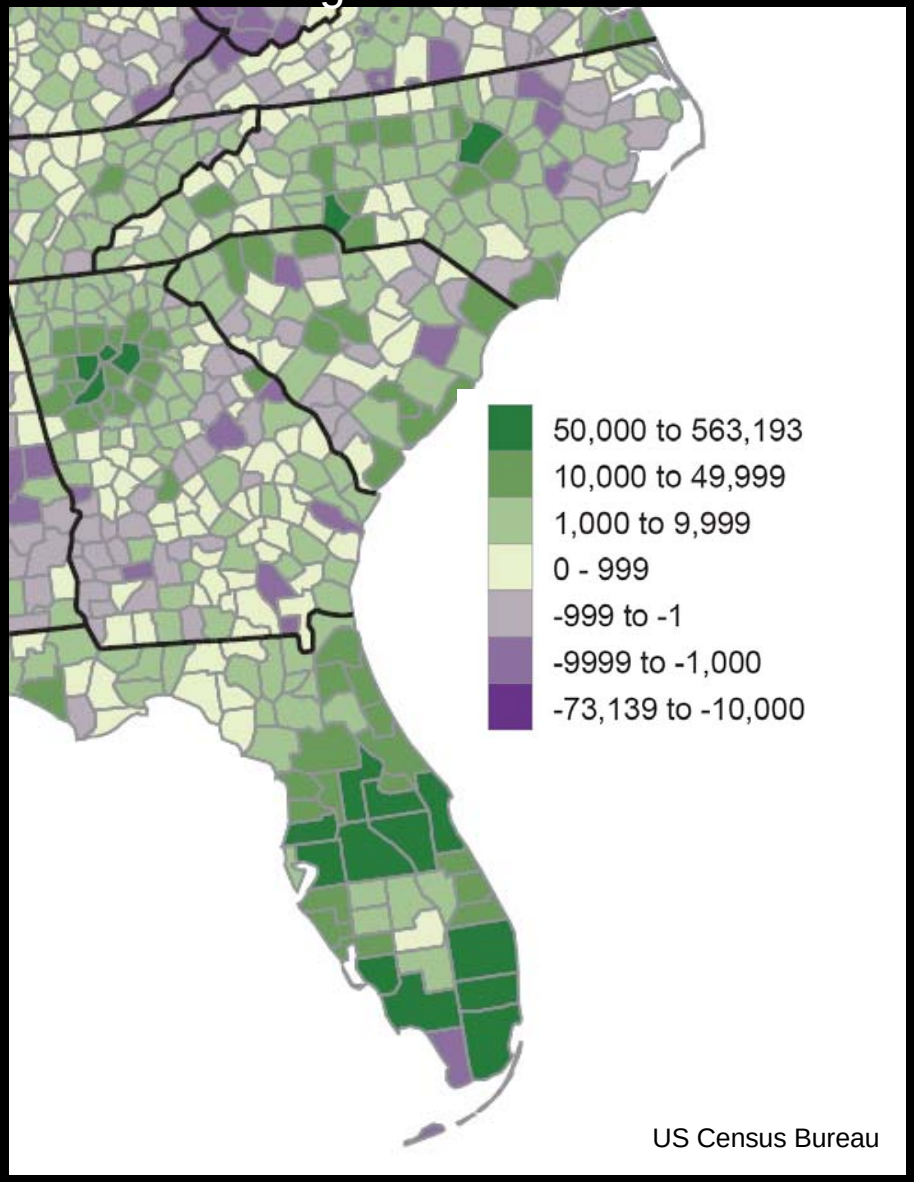
Sea Grant Planning Project Regions



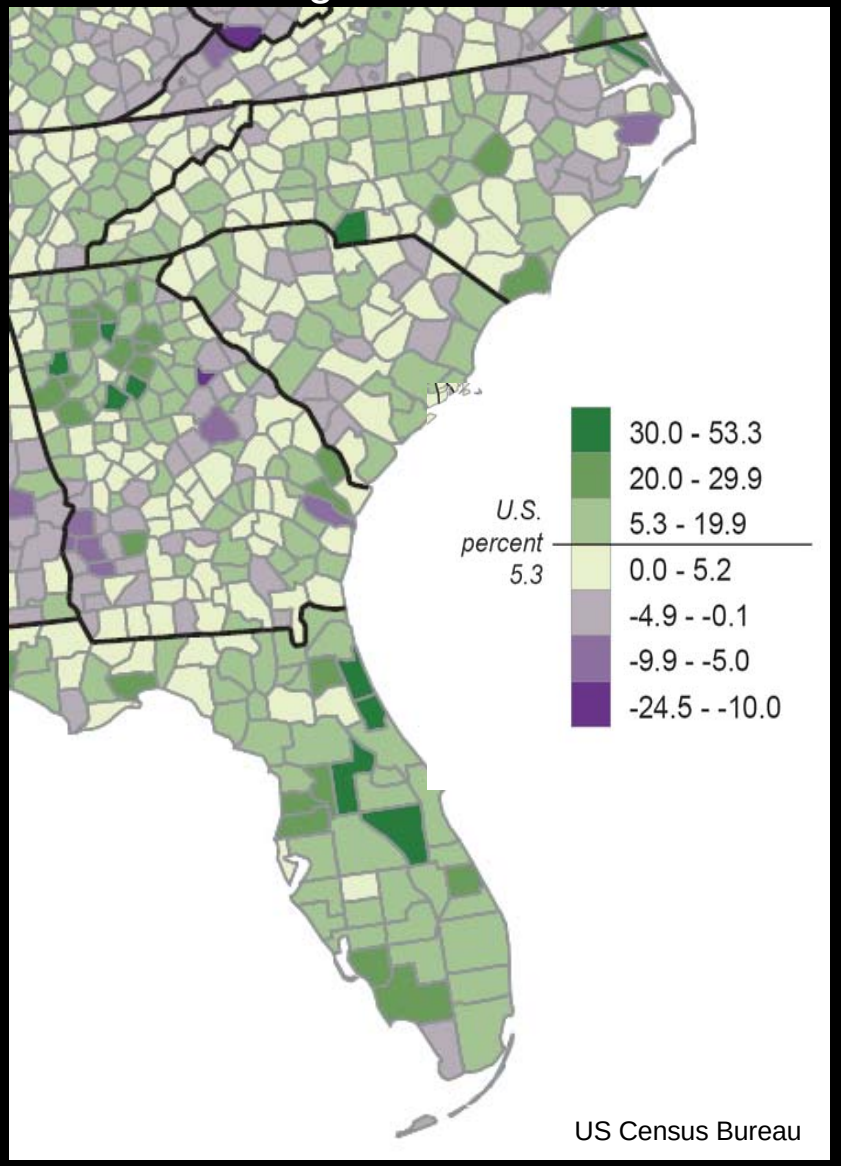


Population Growth (2000-2005)

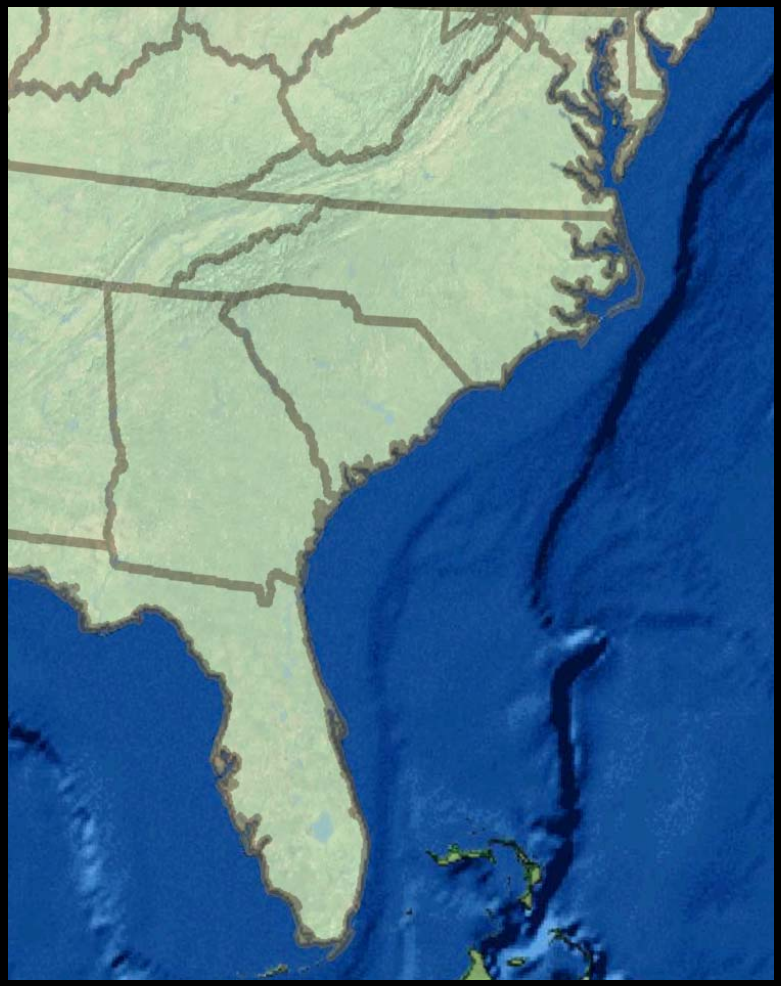
Numeric Change



Percent Change



South Atlantic Team: Organizing Committee



2006 Sea Grant Directors

NC: Ron Hodson

SC: Rick Devoe

GA: Mac Rawson

FL: Jim Cato

Current Sea Grant Directors

NC: Michael Voiland

SC: Rick Devoe

GA: Chuck Hopkinson

FL: Karl Havens (Interim)

And:

GCRC: Merryl Alber, Christine Laporte

Sea Grant: Communication Directors, Extension Directors, Education Directors

http://www.gcrc.uga.edu

Goals: To provide mechanisms for improved scientific exchange and to promote the incorporation of best-available scientific information into resource management .

GCRC accomplishes this by

- Facilitating Interactions
- Synthesizing Technical Information
- Conducting Research
- Communicating Results

South Atlantic Regional Research Project (SARRP) **Process**

1. Inventory existing research plans and documents
2. Identify top research needs
3. Select priority issues
4. Develop action plan
5. Promote coordination, collaboration and resource sharing
6. Ongoing education and outreach

Step 1:

National/International Research Plans and Documents

(excerpt)

Coastal Ocean Plan/ORPPIS
Pew Report
National Sea Grant Strategic Plan
National Ocean Service Strategic Plan
NOAA National Centers for Coastal Ocean Science
EPA Strategic Plan
NMFS Strategic Plan
National Weather Service Strategic Plan
Nat'l Governors Association on Coastal Planning & Policy
Army Corps. of Engineers Civil Works Plan
Dept. of Defense Naval Oceanographic Office Strategic Plan
UN Atlas of the Oceans
USGS Florida Science Center plan
Environment Canada

Step 1:

Regional scale Research Plans and Documents **(excerpt)**

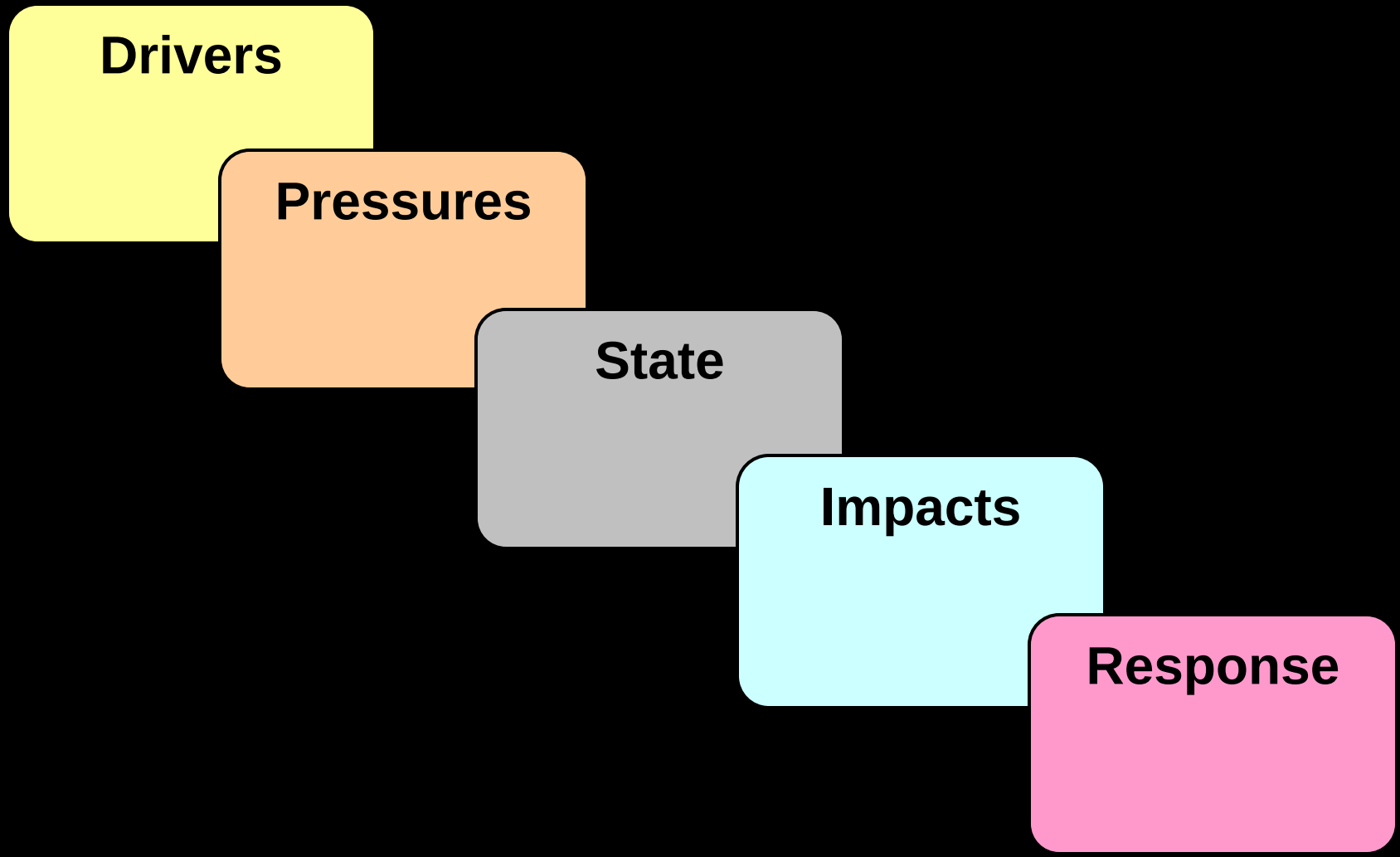
Southeast

- South Atlantic and Caribbean Regional Marine Research Plan
- NC, SC, GA, FL Sea Grant Documents
- State Coastal Management Programs
- Coastal Services Center Plan
- South Atlantic Marine Fisheries Council
- Fish and Wildlife Service Southeast Region
- EPA Strategic Plan, Region IV
- Natl. Park Service Coastal Southeast watershed reports

Other Regions

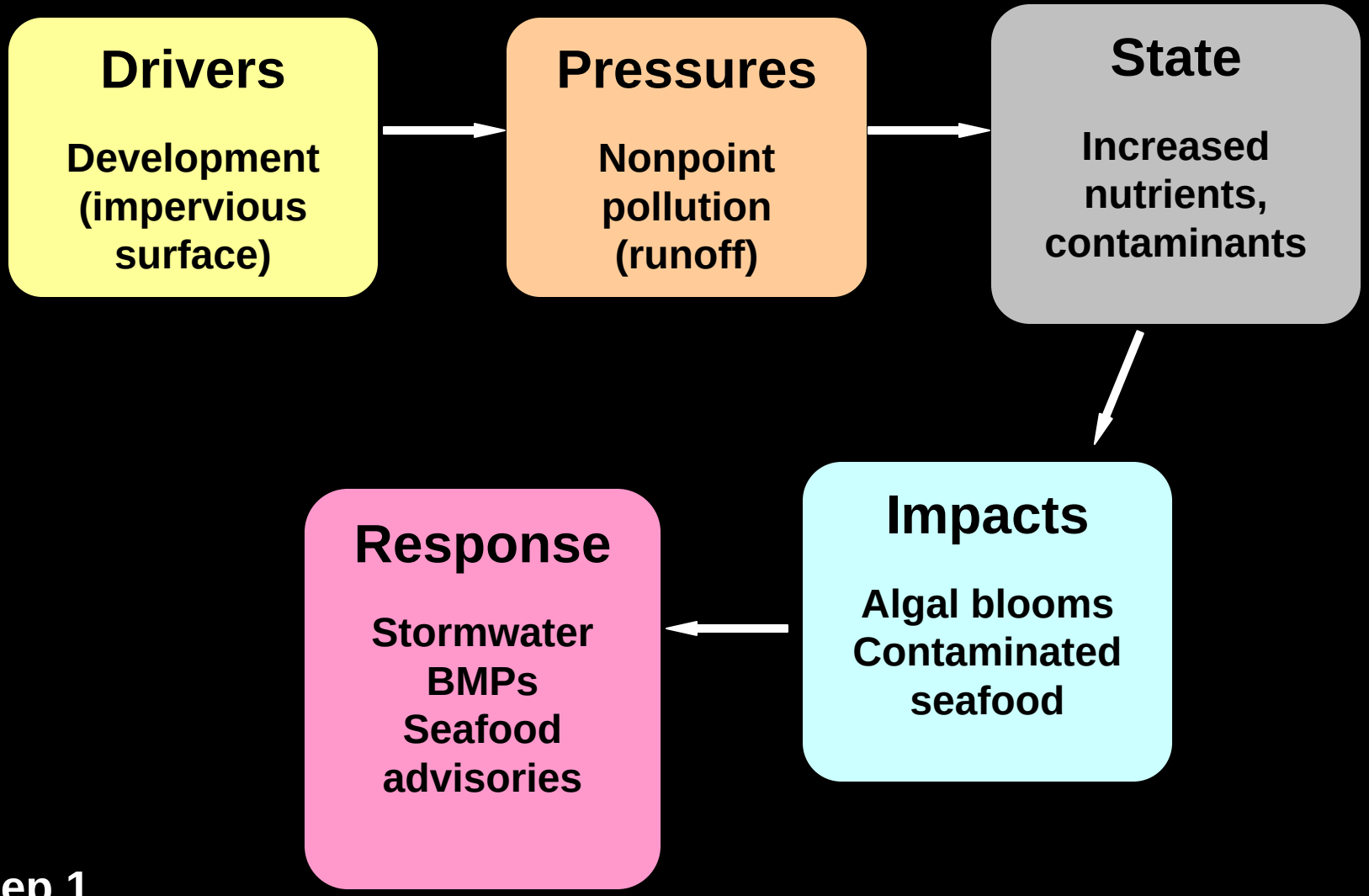
- West Coast Governors Agreement
- Gulf of Maine Council
- Great Lakes Regional Collaboration Plan
- Gulf of Mexico Alliance – Gulf Action Plan

DPSIR Framework



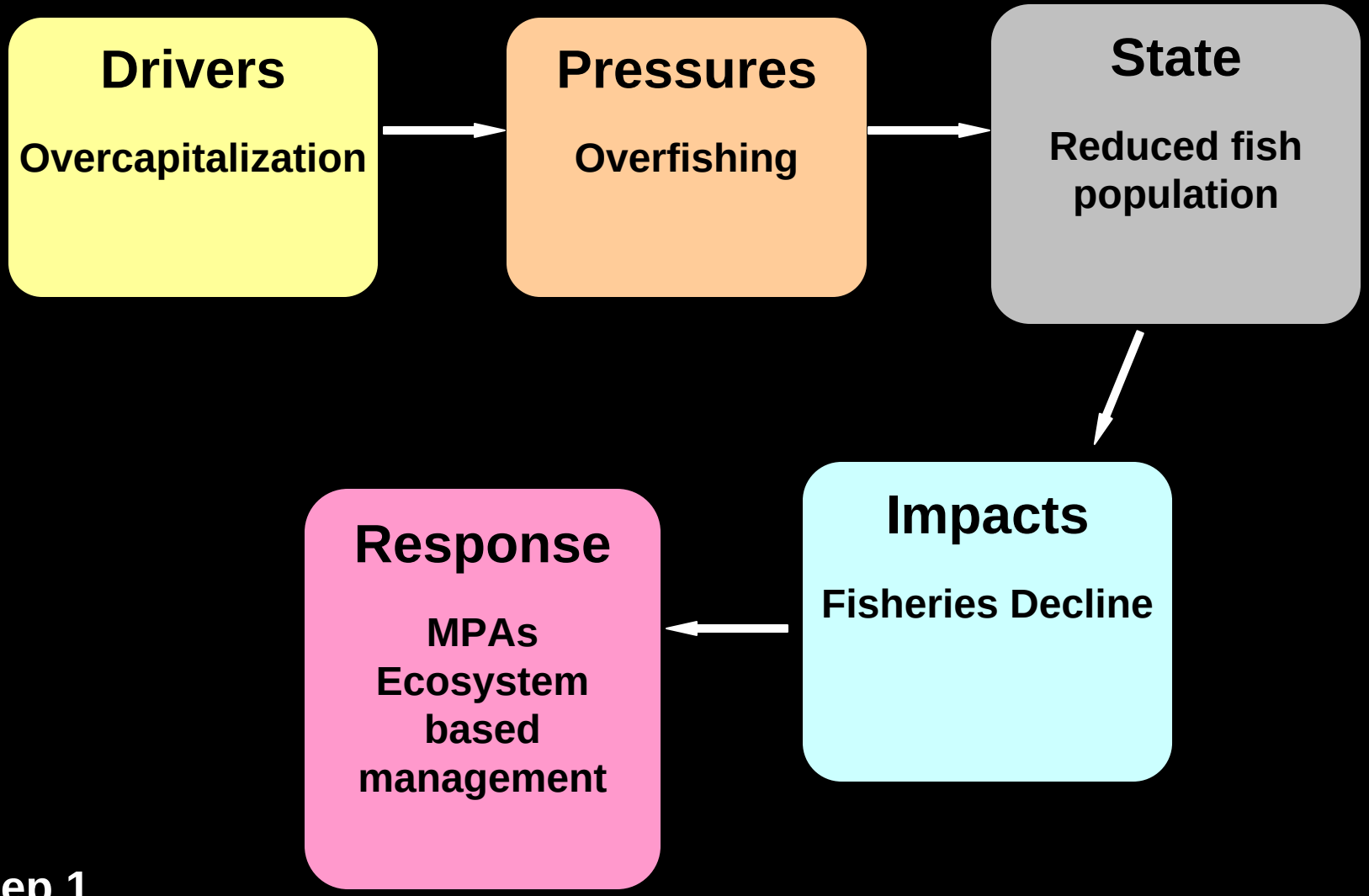
Step 1

DPSIR Example 1



Step 1

DPSIR Example 2



Step 1

Drivers

- **Human population growth**, e.g., coastal development, seasonal and vacation use
- **Watershed activities**, e.g., urbanization and other land use changes , operation of dams, emissions from industry, waste from power plants, effluent from sewage treatment plants, septic tanks
- **Direct alteration of coastal habitat**, e.g., construction of docks and marinas, dredging (dredge and fill), trawling, building seawalls, jetties, etc., Impoundments
- **Marine activities**, e.g., ecotourism, recreation, fishing, shell fishing, aquaculture, shipping activity (operation of ports, ballast water management), military operations, offshore oil and gas development, extraction
- **Climate**, e.g., precipitation, temperature, storm events, sea level , wind stress, decadal indices and other long-term forcing
- **Physical Setting**, e.g., bathymetry, wave environment

Step 1

Pressures

- Point source pollution
- Non-point source pollution, including atmospheric deposition
- Changes in freshwater inflow
- Habitat loss, fragmentation
- Changes in hydrography, bathymetry
- Introduction of invasive species
- Acoustic effects
- Overfishing, bycatch
- Climate effects

Step 1

State

- **Physical characteristics,** e.g. water circulation patterns , residence time, sediment transport, rate of erosion, extent and location of habitat (wetlands, coral reefs, hard bottoms, salinity zones, etc.)

- **Water, sediment quality,** e.g. salinity, suspended sediment, dissolved oxygen (hypoxia), nutrient concentrations, contaminant concentrations (metals, toxins, pharmaceuticals, plastics), coliforms, pathogens, pH , radioactivity, marine debris

- **Biological components,** e.g. amount and distribution of primary producers, amount and distribution of secondary producers, food web interactions, species diversity , presence of invasive species, contaminant concentrations in organisms

Step 1

Impacts

- **Habitat loss and degradation,** e.g., wetland loss, coral bleaching, seagrass dieoff, marsh dieback, alteration of physical setting (e.g. interruption of sand budget)
- **Eutrophication symptoms**, e.g., decrease in submerged aquatic vegetation, increase in harmful algal blooms, high chlorophyll concentrations, fish kills
- **Effects on fisheries**, e.g., decreased fish catch, increased disease of fish, aquaculture species, Disruption of food web due to invasive species
- **Effects on human health and quality of life**, e.g., Contaminated fish and shellfish, Beach closures
- **Effects on Valued Species,** e.g., Endangered, Threatened and Species of Concern (i.e. sea turtles, right whales), Culturally or commercially valued species (i.e. crabs, shrimp, shellfish, seagrass, coral, finfish)

Responses

- **Point source pollution control**, e.g. NPDES permits, secondary wastewater treatment
- **Stormwater management strategies**, e.g. buffers, impoundments, retention ponds, constructed wetlands
- **Habitat mitigation and restoration**, e.g. beach renourishment, wetland mitigation and restoration
- **Fisheries management**, e.g. fisheries regulations, Marine Protected Areas, ecosystem-based management
- **Eutrophication mitigation**, e.g. targets to decrease nutrient loads, best management practices in watershed

Step 1

Step 2: Identify top research issues/needs

Regional Advisory Group

Federal Agencies
National Sea Grant
NOAA- SECART
SAFMC
EPA Region IV
Dept. of Defense SERPPAS
US Army Corps of Engineers
National Park Service Region IV
US Fish and Wildlife Service Region IV
USGS NEERS
DHS (FEMA) Region IV
USDA Natural Resources Conservation Service

State Agencies
NCDENR, SCDNR and SCDHEC, GADNR and GADCA, FLDEP and FFWC

Academic and Other
SAML
SECOORA

Regional Advisory Group Considerations

- Align with other research efforts
  - National (ORPP)
  - Other SG Regional Research Plans
- Foster partnerships/synergy with other programs in the region, incl. NOAA Regional Team
- Scope- Create a well-defined niche

Step 3: Select priority issues

Stakeholders

- Resource Practitioners
- Government officials
- Industry
- NGOs
- Scientists
- Community members

Public Perceptions and Coastal Issues – Pop Quiz

- “Woman dies after eating Raw Oysters in Atlanta”
- “Beaches Take Turn for Worse Last year”
- “Whale Fears silence US Navy Sonar”

Step 4: Develop action plan

Strategy Teams

SECOR (Southeast Coastal Ocean Research)

- Develop DPSIR model for issue
- Consider the role of human actions
- Identify gaps
- Describe status and trends
- Identify factors that affect susceptibility
- Evaluate future risk/vulnerability

Strategy Teams – resource practitioners, researchers, others with expertise

Future Work

Step 5: Promote coordination, collaboration and resource sharing

- South Atlantic Regional Research Council (future coordination mechanism, GCRC model)

Step 6: Ongoing education and outreach

- Sea Grant Communication Directors, Extension Directors and Education Directors

Information

South Atlantic Regional Research Project

http://www.gcrc.uga.edu/sarrp_temporary.htm

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