SECOORA Projects Updates

- Moorings and HFR
- Gliders
- Modeling
- Applications
- Data Management and Communication

10-Year Anniversary

SECOORA

IOOS Integrated Ocean Observing System

Optimization & Enhancement of the SECOORA Marine Weather Portal

Jennifer Dorton, UNC-Wilmington
Dwayne E. Porter, University of South Carolina
Charlton Galvarino, Second Creek Consulting
Steve Pfaff, NOAA NWS-Wilmington

Optimization and Enhancement of the MWP

2016/17 Goals

- Upgrade the data management and technology that supports the current MWP, including a revision of the mapping software and data management functionality.

- Work with the SECOORA data management provider to determine the best mechanism for hosting the Marine Weather Portal.

All goals have been achieved and portal is available at:
http://mwp.secoora.org

Optimization and Enhancement of the MWP

Optimization and Enhancement of the MWP

Partners and Stakeholders

- NWS offices in the Southeast Region –specifically WFOs in Newport/Morehead City, NC, Wilmington, NC, Charleston, SC, Ruskin, FL, and Brownsville, TX

- SECOORA DMAC

- Boating and fishing community members (e.g. Dave Tilley with FryingPanTower.com, Mitch Roffer with Roffer's Ocean Fishing Forecasting Service, Inc.).

Optimization and Enhancement of the MWP

2017/18 Planned Activities

- Target boating and fishing community members and their representatives
- Identify other regional products that could be included in the MWP. Examples:
    - Rip current forecasting
    - Water quality modeling

# Southeast Ecosystem Advisory: Feasibility Study Report

Mitchell A. Roffer, PhD
Roffer's Ocean Fishing Forecasting Service, Inc.

Candice Hall
Was ROFFS^{TM}, *Now* NOAA NDBC

www.secoora.org
#secoora2017

Devise Ecosystem Advisory

2016/2017 Goals

- Develop climatologies for:
  - Three of nine NOAA buoys
    - Sea surface temperature
    - Winds and waves
  - Regional satellite data
    - Sea surface temperature
    - Ocean color – chlorophyll +CDOM
  - Model output
    - HYCOM (free and easy to download)
      - Water temperature: surface and bottom
      - Salinity: surface and bottom
- Derive fish habitat preferences for 12 species
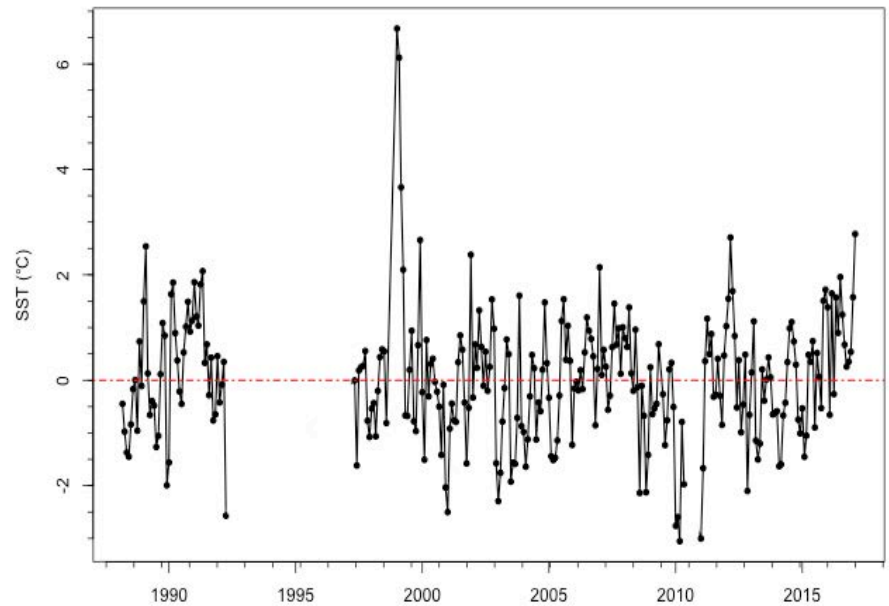- Derive stop light figure summaries of environmental effects
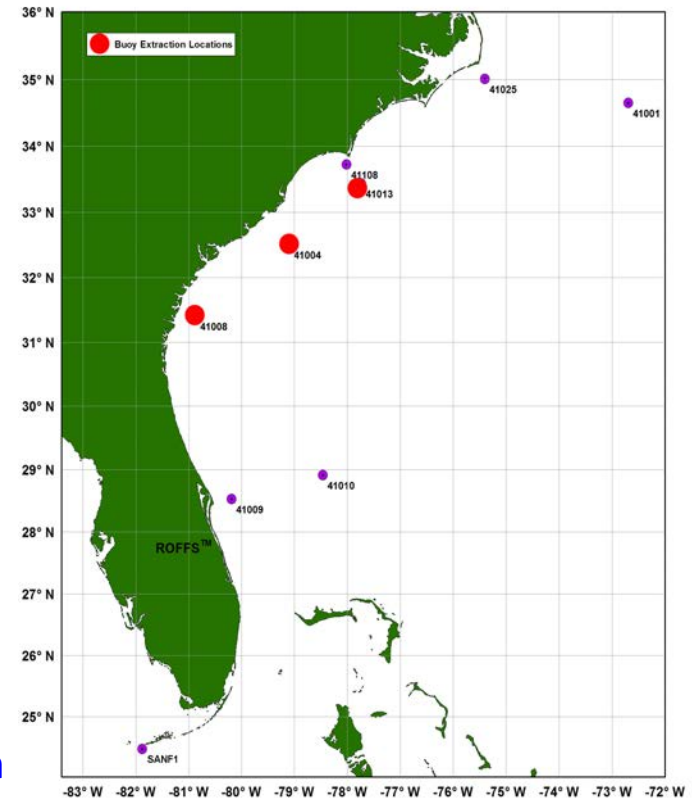
Devise Ecosystem Advisory
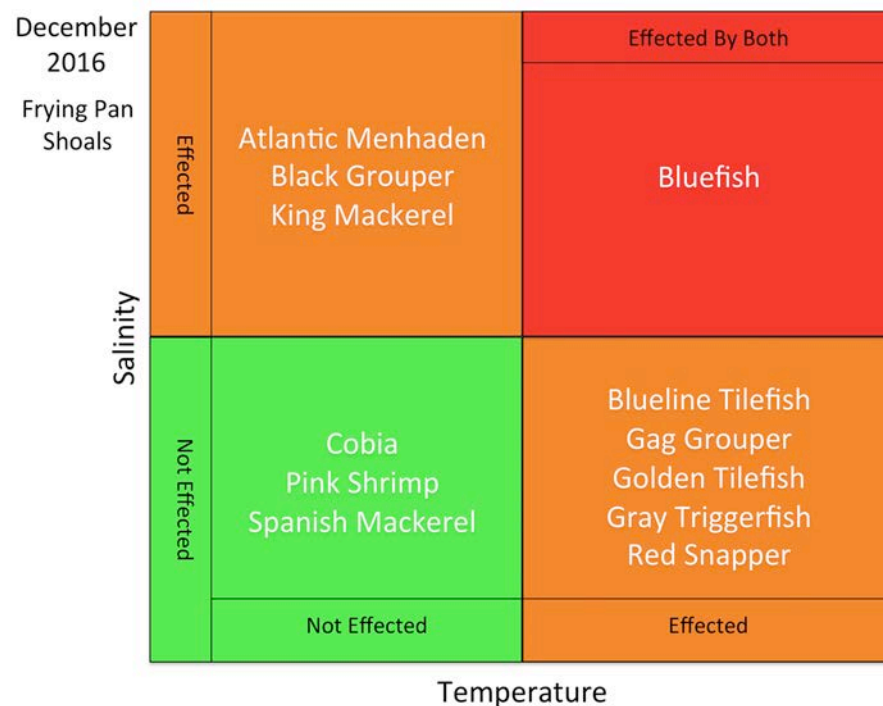
Example: SST Gray's Reef
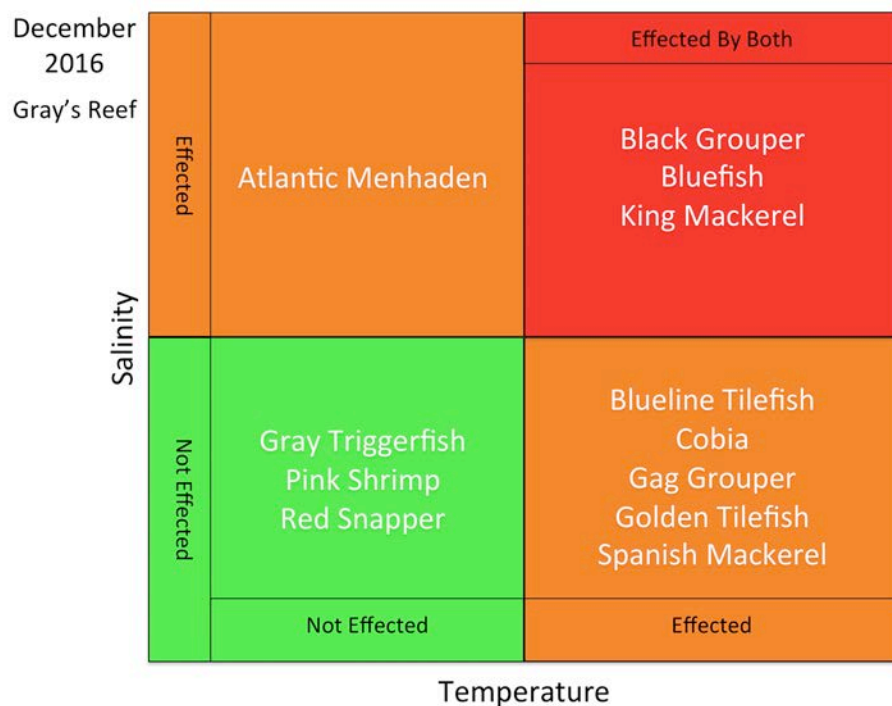

Gray's Reef SST Monthly Mean
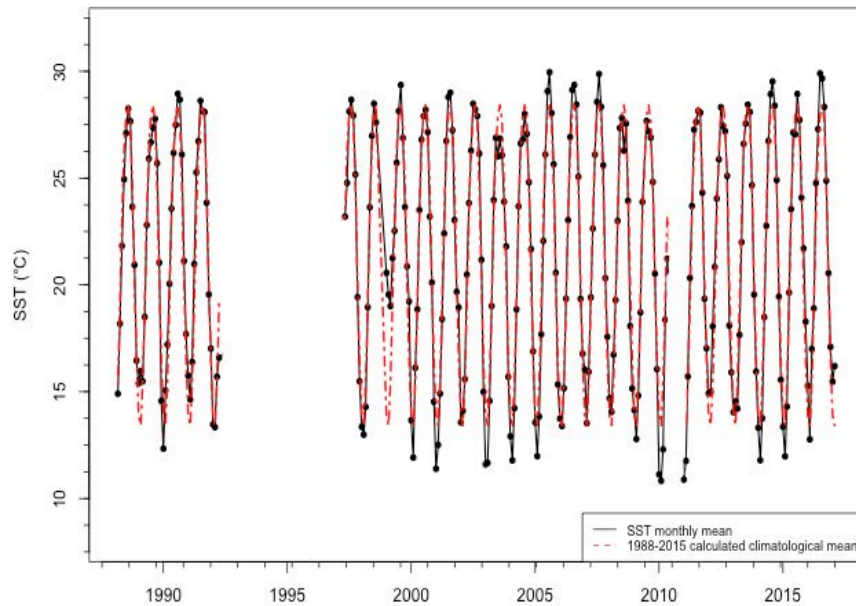
Gray's Reef SST Anomaly

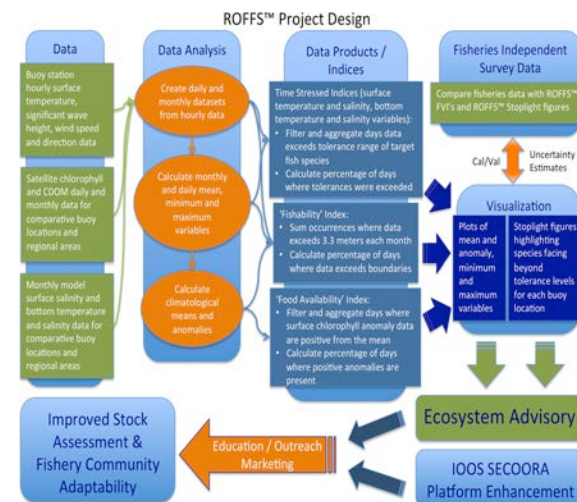# Devise Ecosystem Advisory

Results: Gray's Reef & Fry Pan Shoal

Devise Ecosystem Advisory

Partners and Stakeholders

- Commercial and recreational fishing associations
  - Southeastern Fisheries Association
  - North Carolina Fisheries Association
  - International Gamefish Association
- Management and science
  - Fisheries Management Councils
    - SEFMC, NEFMC
  - NOAA National Marine Fisheries Service
    - SEFSC, NEFSC, Office of Sci. & Tech. (climate)
  - South Carolina Department of Natural Resources
- Stakeholder engagement (Use and feedback)
  - Stakeholders (above and others) co-developed project
  - Use and feedback to be determined

Devise Ecosystem Advisory

2017/18 Planned Activities

- Products will be made available on SECOORA soon.

- Future plans are to:
  - Find additional funding to support quarterly Advisories and expand to nine buoys and Gulf of Mexico.
  - Evaluate other sources of data and models.
    - E.g. Chevron trap survey data and gliders for subsurface conditions.
   - E.g. other ocean models (NCSU, USF, others).

Integrated Decision Support and Management Tools for Adaptive Public Health Practices: An Early Warning System for Swimming Beach and Shellfish Harvesting Waters

Dwayne E. Porter, University of South Carolina
Heath Kelsey, University of Maryland
Geoff Scott, University of South Carolina
Jen Dorton, UNC - Wilmington

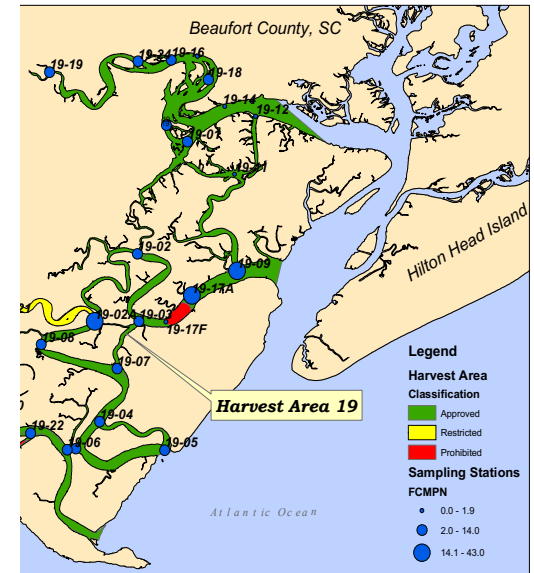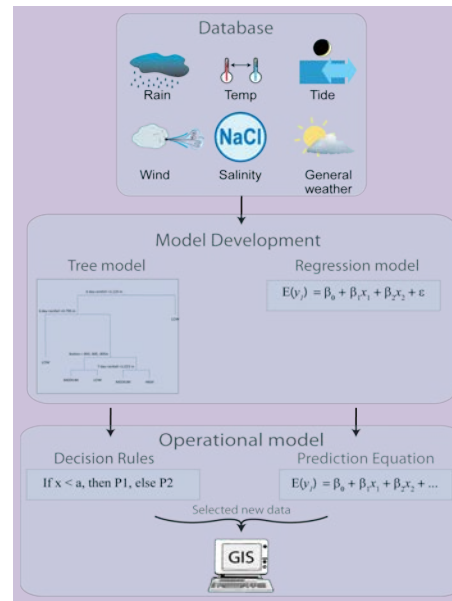# Integrated Decision Support and Management Tools
2016/17 Goals

- Expand existing decision support tool to provide daily forecasts of bacteria concentration for additional swimming beaches in the SECOORA footprint (howsthebeach.org) .
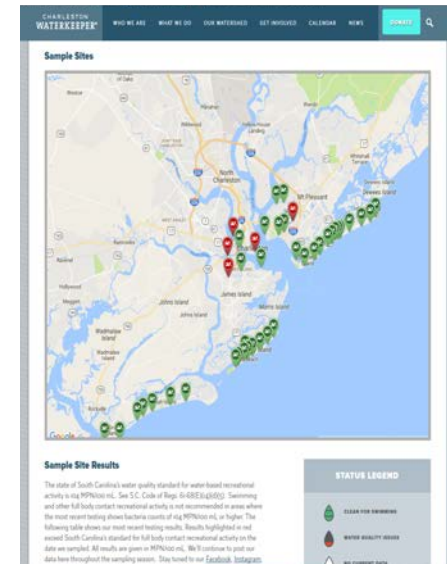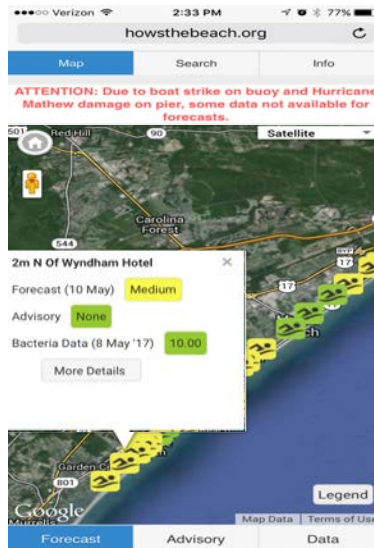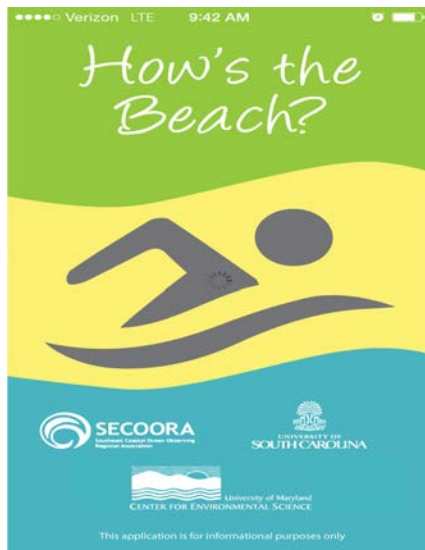
Integrated Decision Support and Management Tools

2016/17 Goals

- Refine a tool developed to predict fecal coliform levels in shellfish harvest areas for use in additional shellfish harvesting waters in the SECOORA footprint.

Integrated Decision Support and Management Tools

From: **Cheryl Carmack** <cheryl@charlestonwaterkeeper.org>
Date: Mon, May 15, 2017 at 12:41 PM
To: "PORTER, DWAYNE" <DEPORTER@mailbox.sc.edu>

Hi Dwayne,

That's great to hear! Thanks for spreading the word!

Yes! So we reach about 1,000 people with our weekly water quality update emails. We also share these updates via our social channels - instagram (~4,200 followers), twitter (~5,100 followers), and facebook (~5,600 followers). Our whole email listserv is over 4,000 subscribers, so we could hit that many with any content we wanted. So needless to say, our new partnership of your water quality modeling and our monitoring and outreach will reach a pretty broad and diverse stakeholder audience.
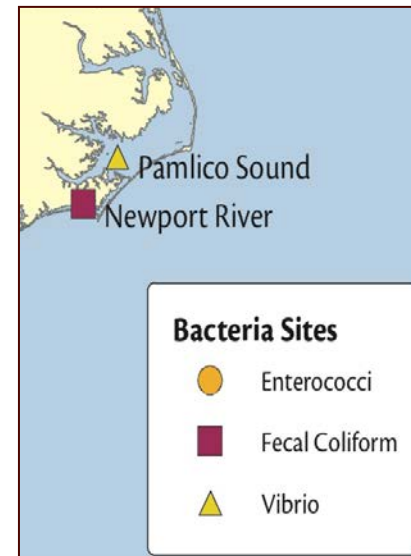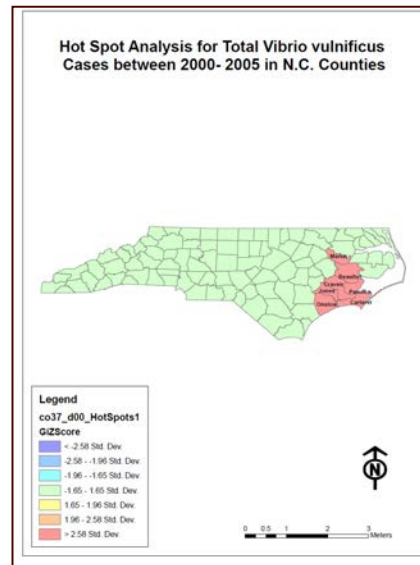
Cheryl

Send

Saved

SECOORA
Southeast Coastal Ocean Observing
Regional Association

IOOS
Integrated Ocean
Observing System

Integrated Decision Support and Management Tools
2017/18 Planned Activities

- ISSC and the NC Division of Marine Fisheries and the Division of Coastal Management have identified swimming beaches and shellfish harvesting areas for inclusion in decision support and management toolbox.

Questions?