



SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

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Schedule **South Atlantic Ecosystem Model Workshop**

**Florida Fish and Wildlife Resource Institute (FWRI)
St. Petersburg, Florida
February 10-11, 2015**

Tuesday, February 10, 2015 – 8:30 a.m. to 4:30 p.m.

Facilitation: Brett Boston – Group Solutions

1. Review of recently developed prey/forage based Ecopath model to initiate development of a new expanded and updated model focused on Council managed species – Tom Okey, Univ. of Victoria / Ocean Integrity Research
2. Overview of the Atlantic Coast Ecosystem Simulation (ACES) model to frame development of the South Atlantic Ecosystem Model (SAES) - a model focused on South Atlantic managed species, atmosphere-ocean dynamics, prey species and habitats – Jerry Ault, University of Miami
3. Development of Conservation Blueprint Version 2.0 and Connectivity Modeling Coordinated through the South Atlantic Conservation Cooperative (SALCC) and Southeast Aquatic Resource Partnership (SARP) – Rua Mordecai, SALCC
4. Overview of oceanographic models (supported by SECOORA) which characterize the State of the South Atlantic ocean and are available for use in other modeling efforts
 - A. State of SECOORA Regional Coastal Observing System (RCOOS) - Vembu Subramanian, SECOORA
 - B. Regional Oceanographic Circulation and Associated South Atlantic Biophysical Modeling – Ruoying He, North Carolina State University
 - C. High Resolution Coastal and Estuarine Hydrodynamic and Ecosystem Modeling – Peter Sheng, University of Florida, Gainesville
 - D. Remote Sensing for Ecosystem Modeling – Mitch Roffer, Roffer's Ocean Fishing Forecasting Service, Inc.

Wednesday, February 11, 2015 – 8:30 a.m. to 4:30 p.m.

Facilitation: Brett Boston – Group Solutions

5. Overview of Habitat and Environmental Parameter Modeling to Enhance Fish Stock Assessments, Characterize Species Habitat Distribution and Investigate Climate Variability - Mitch Roffer, ROFFS
6. A Perspective on How Ecosystem Models Could Support/Enhance SAFMC and SSC Review and Evaluation – Luiz Barbieri, FWRI and Marcel Reichert, SCDNR
7. Developing a Refined and Focused South Atlantic Ecopath Model
 - A. Roundtable Input on a path forward
 - i. Identifying Required Updates, Missing Components, and other Data
8. Developing a South Atlantic Ecosystem Simulation (SAES) Model
 - A. Roundtable Input on a path forward
 - i. Identifying Required Updates, Missing Components, and other Data

Background References/Links Provided by Presenters:

1. Exploring the trophodynamic signature of forage species in the U.S. South Atlantic Bight ecosystem; Fisheries Centre Working Paper 2014-14 <http://www.fisheries.ubc.ca/node/4687>
2. Ecosystem Simulation Modeling - ACES Model: http://ccs.miami.edu/?page_id=716
3. Conservation Blueprint - <http://blueprint.southatlanticlcc.org/>
Indicators in Conservation Blueprint - <http://www.southatlanticlcc.org/page/indicators>
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13. Qian, H., Y. Li, R. He, and D. B. Eggleston (2014) Connectivity in the Intra-American Seas and implications for potential larval transport, *Coral Reefs*, doi:10.1007/s00338-014-1244-0. [[PDF](#)]
14. Zambon, J. B., R. He, and J. C. Warner (2014) Investigation of Hurricane Ivan using the Coupled Ocean-Atmosphere-Wave-Sediment Transport (COAWST) Model, *Ocean Dynamics*, 64(11), pp. 1535-1554, doi:10.1007/s10236-014-0777-7 [[PDF](#)]
15. Kourafalou V.H., P. De Mey, M. Le Hénaff, G. Charria, C.A. Edwards, R. He, M. Herzfeld, A. Pascual, E. Stanev, J. Tintoré, N. Usui, A. van der Westhuysen, J. Wilkin, and X. Zhu (2015) Coastal Ocean Forecasting: system integration and evaluation. *Journal of Operational Oceanography*, 7(3) 129-148 [[PDF](#)]
16. Zeng, X., Y. Li, R. He, and Y. Yin (2014) Clustering of the Loop Current patterns based on satellite observed sea surface height and self-organizing map, *Remote Sensing Letters*, 6,1, 11-19 [[PDF](#)]
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18. Three dimensional simulation of transport and fate of oil spill under wave induced circulation, Liu, T.Y. and Y.P. Sheng, *Marine Pollution Bulletin*, 80, 148-159, 2014.
19. Estimating the dispersal capacity of the introduced green mussel, *Perna viridis* (Linnaeus, 1758), from field collections and oceanographic modeling, M.R. Gilg, R. Haywood, R. Turner, M. Middlebrook, M. Abdunour, E. Lukaj, Y. P. Sheng, T. Liu, and B. Tutak, *J. Experimental Marine Biology and Ecology*, 461, 233-242, 2014.
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30. Skill Assessment of An Integrated Modeling system for Estuarine and Coastal Ecosystems, Y. P. Sheng and T. Kim, *Journal of Marine Systems*, 76, 212-243, 2009.
31. Circulation and Flushing in the Lagoonal System of the Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNERR), Florida,” Y.P. Sheng, B. Tutak, J.R. Davis, and V. Paramygin, *J. Coastal Research*, 55, 9-25, 2008.
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33. Relative influence of various water quality parameters on light attenuation in Indian River Lagoon, D. Christian and Y.P. Sheng, *Estuarine, Coastal, and Shelf Science*, 57, 961-971, 2003.

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