

# THE ROLE OF METEOROLOGICALLY AND TIDALLY DRIVEN FLOWS IN THE ESTUARINE RECRUITMENT OF FALL-WINTER SPAWNED LARVAL FISH AND POST-LARVAL BROWN SHRIMP

## Recruitment Corridor

Valuable and productive Northern Gulf fisheries depend on the recruitment of larva from offshore winter spawning sites into estuarine nursery grounds

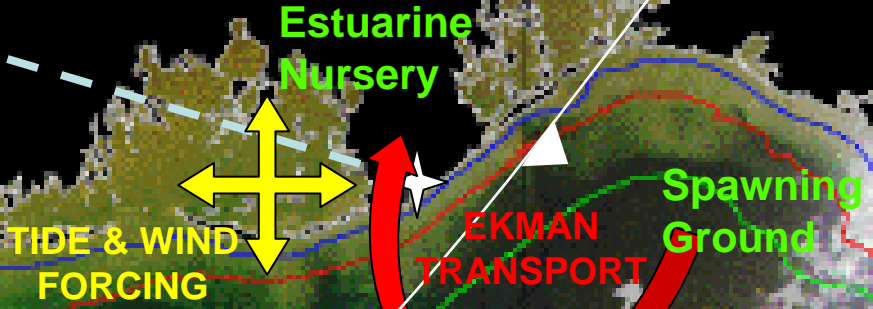
- Wind forced and tidal generated currents are hypothesized as critical components of the **Recruitment Corridor**.
- Our goal is to determine the relative role of wind and astronomical tidal currents.
- Potential to predict consequences of changing environmental conditions, coastlines & climate.



PORT FOURCHON TIDAL PASS  
 ICHTHYOPLANKTON SAMPLING  
 LSU Coastal Fisheries Institute

Acoustic Doppler Current Profiles  
 Fixed Moorings and Surveys  
 LSU Coastal Studies Institute

Linking Scales and Testing Hypothesis  
 Lagrangian Individual Based Particle Tracking - Matlab  
 NRL NGOMNFS – Raster maps – Velocity vectors, Temperature, & Salinity  
 NOAA, SEFSC



WIND STRESS



Brown shrimp (*Farfantepenaeus aztecus*)



Gulf menhaden (*Brevoortia patronus*)



**NOAA**  
 Office of Oceanic and Atmospheric Research  
 Northern Gulf Institute

Background Image: REMSS QuickScat Wind Vectors  
 April 26, 2007, 1801 UTC  
 LSU Earth Scan Lab

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