



ECOHAB: FLORIDA PROJECT GOALS

Our ability to predict initiation, maintenance, and dispersal of red tides is severely limited by the lack of a quantitative description of their population dynamics. The goal of the collaborative ECOHAB: Florida investigators is to research and answer the questions surrounding harmful algal blooms in the Gulf of Mexico. To meet this goal, the research objectives of this project are to:

- Model the initiation, maintenance, and export of *Karenia brevis* red tides on the west Florida shelf at different time and space scales and to predict its movement
- Describe the physical habitat that affects transport and concentration of *K. brevis*
- Determine the sources of inorganic and organic nutrients that allow growth and persistence of large *K. brevis* populations in coastal waters
- Evaluate the interactions of cellular, behavioral, life cycle, and community regulation processes with environmental forcing factors during stages of bloom development and
- Determine the production, occurrence, fate, and effects of brevetoxins in the environment during and after *K. brevis* blooms