Red Tide Research

CLAIRE LACEY, graduate student at the University of West Florida, joined the CBA crew on the boat this month to collect some additional water samples for her red tide research. She is researching the spatial and temporal variability of the red tide organism *Karenia brevis* within the Choctawhatchee Bay system. Our area has previously experienced red tides caused by blooms of the toxic dinoflagellate *K. brevis* which resulted in massive fish and dolphin kills.

More in-depth information about Claire's research:

Water samples were collected at monthly intervals for the past five years, at six shore stations in two bayous in western Choctawhatchee Bay. Polymerase chain reaction (PCR) will be used to determine *K. brevis* concentrations within these Choctawhatchee Bay bayous. Surface water nutrient levels and chlorophyll *a* were measured in all samples along with standard physical water characteristics (DO, temperature, and salinity) to provide relevant biogeochemical framework to assess the observed spatial and temporal variability in *K. brevis*. The results will be evaluated for spatial and temporal correlation in order to expose potential causes for the periodic blooms, including nutrient loading from surface and subsurface fluxes.

~ About Claire ~

I'm from Western Canada (Alberta). I got my Bachelor of Science in Geography with a concentration in GIS from the University of Lethbridge. I'm hoping GIS will play a large part in the spatial analysis of the data. After graduating and working as a GIS Analyst for two years, I decided it was time to continue my education. My area of interest was environmental water management and I felt it would be valuable to seek more extensive experience abroad where I might gain a more diversified perspective. I discovered the Graduate Teaching Assistant GIS position at the University of West Florida and when I looked into the Master's Program there, I was thrilled to see that the Department of Environmental Studies offered a Master's Degree with a research concentration in Hydrogeology. Applying my GIS experience, I chose to work on a thesis project entitled Spatial and Temporal Variability of *Karenia brevis* in the Choctawhatchee and Pensacola Bay systems.