



## **Enhancing the understanding of marine ecosystems through teleducation and field experiences**

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This project is an outreach and education program with a partner in the K-12 schools at Accomack County on the Eastern Shore of Virginia. It endeavors to build a community more knowledgeable of the importance the ocean plays daily in our lives, and our own impact on the ocean. It is an program built in stages that: 1) Establish high speed teleducation linkages with Eastern Shore of Virginia High Schools, for live interactive, classes (teleducation) for earth science teachers enabling them to remotely participate in University of Virginia classes in Oceanography (designed on a faculty development basis or acquire NSTA certification in Earth Science Education, as well as participation by seniors in the Accomack Schools; 2) Establish field experiences for teachers and selected students that involve travel to both the Virginia Coast Reserve Long Term Ecological Research (VCR/LTER) Center, UVA and the NOAA Beaufort, NC Laboratory to observe first-hand the science programs at those locations and participate in cutting edge coastal marine research efforts. These experiences will not only improve student understanding of the ocean-atmosphere biogeophysical system, but also encourage students to explore the sciences as a field of study and possible vocation. Advanced high school students and science teachers from Accomack County Public Schools participated in an experience involving field and laboratory methods employed in a NSF-sponsored study of the coupled natural-human dynamics on the Eastern Shore of Virginia over the past 500 years (NSF-Biocomplexity). Students and teachers worked with researchers of the VCR facility in Oyster, VA, collected sediment cores from Chesapeake Bay tributaries, and traveled to the Organic Geochemistry Laboratory at UVA, in Charlottesville, VA to prepare and analyze samples for isotopic and palynological information. In a first of its kind connectivity, in June/July, 2006, using high speed internet connections, a summer class in Oceanography was

live, interactively broadcast (teleducation) with Arcadia High School on the Eastern Shore, allowing teachers in the Accomack School district to receive university credit without leaving their home classrooms 400km from UVA.