

STEM Scholars Summer Field Site Experience Florida Department of Agricultural and Consumer Services and Apalachicola National Estuarine Research Reserve

Participating School Districts



Panhandle Area Educational Consortium

Patrick L. McDaniel, Executive Director

Calhoun

Franklin

Gadsden

Gulf

Holmes

Jackson

Jefferson

Liberty

Madison

Taylor

Wakulla

Walton

Washington



Heartland Educational Consortium

Dr. Debra Elliott, Executive Director

DeSoto

Glades

Hardee

Hendry

Highlands

Okeechobee



North East Florida Educational Consortium

James Surrency, Ph.D., Executive Director

Columbia

Flagler

Gilchrist

Lafayette

Levy

P.K. Yonge

Putnam

Union

Through the Panhandle Area Educational Consortium's *FloridaLearns STEM Scholars* Project STEM Talent Development Program, talented and gifted high school juniors and seniors from small and rural districts across Florida had the opportunity to take part in locally-available Field Site/Workplace Experiences this summer. These experiences, made possible through partnerships with leaders in STEM (Science, Technology Engineering, and Math), such as industries, local businesses, agencies, the military, and higher education faculty, gave students an opportunity to actively engage in doing "real" STEM work.

Franklin County students Max Davis, Cash Creamer, Walker DeVaughn, and Amanda Smith spent a part of their summer vacation learning in the field from experts at the Florida Department of Agricultural and Consumer Services Division of Aquaculture and Apalachicola Estuarine Research Reserve. During this experience students participated in field sampling procedures and conducted tests for pollution and types of bacteria from fecal matter that have potential to negatively impact people and the ecosystem. This is particularly important; because oysters from the Apalachicola Bay are sold in many markets across the U.S. Students also examined oyster cages as a part of an ongoing experiment to determine what best support oyster growth- fossilized shell or regularly processed shell and examined the other organisms found in the cages. Additionally, students assisted in replacing some of the aging data loggers that measure temperature, specific conductivity, salinity, dissolved oxygen, pH, water level and turbidity in the bay. Summer is also the time when sea turtles lay eggs in the sand along the coastline and students spent a portion of their time driving the length of the beach looking for turtle tracks and nests. Each nest was marked and its location recorded using GPS technology. A protective covering was also placed over the nest.

Important outcomes for the students included greater insights into STEM career options, a keener understanding of the relevance of the rigorous STEM courses they are taking while in high school, and an understanding of the work done by scientists to protect the estuary and bay. Joe Shields III, Coordinator, FDACS Division of Aquaculture worked with DEP personnel to coordinate the experience and Franklin County School teacher, Heidi Montgomery was the onsite teacher.



Max Davis and Cash Creamer measure indicators of water quality in the Apalachicola Bay with Jenna Harper from the Apalachicola Bay National estuarine Research Reserve.

Participating School Districts



Panhandle Area Educational Consortium

Patrick L. McDaniel, Executive Director

Calhoun

Franklin

Gadsden

Gulf

Holmes

Jackson

Jefferson

Liberty

Madison

Taylor

Wakulla

Walton

Washington



Heartland Educational Consortium

Dr. Debra Elliott, Executive Director

DeSoto

Glades

Hardee

Hendry

Highlands

Okeechobee



North East Florida Educational Consortium

James Surrency, Ph.D., Executive Director

Columbia

Flagler

Gilchrist

Lafayette

Levy

P.K. Yonge

Putnam

Union



Amanda Smith logs data from the bay.



After placing a protective covering over the sea turtle nest, Walker DeV Vaughn ensures it is properly marked.