

Sowing seeds in a 'shack'

By Patrick Anderson
Staff Writer

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Aquaculture students at Gloucester High School's Clam Shack have completed more than a few tests and their homework.

Part of the growing trend of practical, hands-on education, the Clam Shack students learning aquaculture in a joint program with Salem State College grow clams, maintain tanks and, in many cases, also built the classrooms in which they learn.

Begun more than a year ago behind the high school on the banks of the Annisquam, the Clam Shack is now turning out dozens of baby clams and providing students a window into the world of science.

"We want kids to learn hands-on science," Clam Shack teacher Jim Schoel said this week. "A lot are concrete thinkers, the abstract doesn't necessarily work. If they see something they can maintain, they can learn this way."

The Clam Shack started as part of the Summitt Program, an alternative program for students struggling in school, but has expanded to regular education and is drawing collaboration from the science department.

Built by students in the high school carpentry program — many of them now in the aquaculture program — the shack itself is filled with circulating, aerated tanks and sits on the banks of the Annisquam River near the Dun Fudgin boat landing.

The students, given expertise, equipment and clam seed by the biology department at Salem State, keep the water and nutrients as close as they can to the Annisquam River.

Right now, the grown clams are sent back to Salem State, but the program has applied to the state Division of Marine Fisheries to be allowed to return them to flats in the Annisquam.

In addition to a science class, Schoel uses the aquaculture program to teach writing and other skills. Having worked to build the lab and now running it, Schoel said the sense of ownership in the Clam Shack gives students something they can relate to other concepts.

In a recent writing assignment, senior Dan Signor described constructing the Clam Shack, wiring it and setting it up as a lab, not knowing that this year he would be writing about it.

"Now that I am out there, I see a change in my English skills," Signor wrote. "I don't dread it anymore."

Sophomore Thomas Grennan described testing the salinity, acidity and density of the water in the three clam tanks, growing clams and two different types of algae to feed them.

The aquaculture program comes as robotics classes have become increasingly popular and the school district harbors dreams of building a special marine sciences vocational school.

High School Principal William Goodwin on Thursday said the move towards hands-on learning was working well in the high school.

"It is making real-life connections," Goodwin said. "They read it in a book, but when they see it how it works, that is the connection to real life."

"If they were doing this in Wyoming, it would be cattle ranching," Goodwin said. "For us, it is the ocean, because we are surrounded by it."

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Photos



Gloucester High senior Randy Haskell shows the baby clams that students are raising in the clam shack behind the high school. The school has partnered with Salem State College to try and create healthy environments for raising clams. Staff Photographer



Gloucester High sophomore Thomas Grennan takes a sample of water to see how dense the algae is during an aquaculture class held in the clam shack behind Gloucester High School. Dr. Mark Fregeau, chairman of the Salem State Biology Department, talking with senior Randy Haskell, right, came to work with the teens in Jim Schoel's class Thursday morning. The students are growing the algae to feed clams. Gloucester Daily Times