# Tim Visel worked to bring aquaculture to the forefront in CT education

By Ben Crnic

If you asked longtime educator Tim Visel about his extensive career, he'd likely humbly describe himself as a simple skiff fisherman.

Clearly, though, without Visel's tireless efforts across nearly 40 years, aquaculture education in Connecticut would not be at nearly the same level it is today.

Visel was a major force in starting two regional state schools that are dedicated to teaching aquaculture, or the cultivation of aquatic plants and animals, to high school-level students. The Bridgeport Regional Vocational Aquaculture School opened in 1993, and The Sound School in New Haven, which opened an aquaculture center in 1994, are cornerstones of his expansive legacy.

The two schools are complemented by other high school-level vocational aquaculture programs in Ledyard, Stamford and Wallingford, as well as the Marine Science Magnet High School in Groton, which opened in 2011.

Now, after nearly 28 years of serving as coordinator for the Sound School, Visel, 68, retired from his position in June, giving him the chance to reflect on a career well-spent.

"No one really thought aquaculture would grow as fast as it did, and it's growing faster," Visel said.

The inspiration for Visel's work toward starting these vocational aquaculture programs in the state came when he first learned about Connecticut's rich history of high school-level agricultural education, which started in 1875. One of the schools Visel attended growing up in Madison was once an agricultural school. That led to Visel learning more about high school-level agricultural education from the school's former agriculture teacher, Archie Holdridge.

"Connecticut actually piloted the concept of teaching agriculture at a high school level," Visel said. By the 1970s, though, interest in agriculture education along the shoreline was declining, as many coastal farms were being developed for housing and commercial uses.

But Visel, for one, didn't lose interest. Throughout his schooling and early career in running workshops on fishery technology, he held onto the idea that Connecticut's students could not only learn farming at the high school level, but ocean farming as well.

Years later, in 1981, Visel was leading an oyster management workshop where he met Roger Lawrence, a vocational agriculture consultant who worked for the state Department of Education and spent years beforehand teaching agriculture to students. After talking with Visel, Lawrence realized the similarities between aquaculture and agriculture education, and the idea grew from there.

Tim Visel visits Clinton Harbor, where at age 13 he and his brother Ray started a small-scale fishing business after they found and fixed up an old Brockway skiff. Photo: Ben Crnic

"He said, 'You build boats. We build barns.' And I said, gee, Roger, it's the same thing," Visel recalled, adding that Lawrence became instrumental in getting the state aquaculture vocational programs started.

"If he didn't take an interest, I don't think we'd have these schools," Visel said. "So many people helped along the way…it wasn't just me. It was dozens, if not hundreds of people who got behind the concept."

Tim Visel, left, talks with a Sound School senior José Carrion about an oyster shell on the shore near the school last spring. Photo: Judy Benson

One of those was Richard Schneller, who served as State Senate Majority Leader from 1981 to 1984. Schneller played a key role by helping to secure funding for developing aquaculture curriculum along with Errol Terrell, who ran the Department of Education's Bureau of Vocational Services.

Eventually, the Department of Education developed a proposal in 1986 to build four regional aquaculture centers in Bridgeport, New Haven, Old Lyme, and Groton. Execution of the plan hit a few snags, though, when some school district leaders became overwhelmed by the prospect of developing such a program, even though the state provided all the necessary funds.

When he proposed that districts build facilities such as pathology labs, bacteriology labs, computer-assisted design (CAD) labs, engineering labs and boat shops, some school boards balked.

"The curriculum was so different and so new, and a lot of times so advanced, I think districts felt they just couldn't do it," Visel said. Because of this, towns such as Old Lyme ended up returning the state funds meant for starting aquaculture centers.

Despite the difficulties in getting the schools off the ground, Bridgeport and New Haven were willing to take the leap and start the aquaculture programs, Visel said. In 1989, Visel started working on coordinating the architectural plans, engineering and laboratory designs for the construction of the Bridgeport school, and also coordinated the design and construction of the Sound School's aquaculture center, which was dedicated in 2003.

The school introduces students to topics such as vessel construction, aquaculture biology, marine mechanics, aquatic chemistry, toxicology and water quality. More than 100 people helped develop the different labs for the aquaculture center, Visel said.

"When we started working on this, aquaculture was pretty unknown," he said. "But we figured it was going to be important in the future."

One particularly relevant fact, he noted, is that most of the seafood people eat today is raised through aquaculture, including oysters, mussels, shrimp, tilapia and salmon.

Visel knows about seafood. He got his start in commercial oystering and lobstering with his brother, Ray, when he was just 13 years old, after they found an old Brockway skiff washed up on a beach. Soon, they set out in Clinton Harbor and the Hammonasset River, and were operating a small-scale fishing business.

During this time, several experienced oystermen in the area took a liking to Visel, including George McNeil. He owned the McNeil Oyster Company at City Point in New Haven, where the Sound School is currently located. McNeil lived next door to the dock that the brothers would frequent in Clinton Harbor and would often talk to them about oystering and lobstering.

"George was a tremendous benefactor and got me interested," Visel said, adding that from McNeil and the other oystermen he met, he gained much of his knowledge about the oyster industry in Connecticut, which in the 19th Century was the largest in the country. By the 1970s though, the industry was in a state

of decline due to pollution from runoff and sewage overflows.

Learning about oystering from McNeil and others helped inspire his research as he moved on in his schooling at the University of Rhode Island, earning undergraduate and graduate degrees in commercial fishing, resource development and animal pathology.

As part of his work toward his master's degree, Visel developed shellfish management plans for many towns along the Connecticut coastline, including Old Saybrook, Guilford, Clinton and Madison. These plans included details on oyster cultivation and harvesting operations in rivers and along the coast. He also showed towns that if oysters were transplanted to cleaner waters not affected by pollution, they would naturally rid themselves of pollutants and become edible, a process known as depuration. Ultimately, although some towns were slow to catch on, Visel helped revitalize interest in recreational and commercial shellfishing.

After receiving his degrees, Visel continued to educate people about fishery technology and conduct workshops through positions with the University of Massachusetts and Connecticut Sea Grant. During his time with Sea Grant, Visel also worked to write curriculums for high schoolers about the marine environment and aquaculture.

"Tim has always been visionary in his thinking, whether working with commercial fishermen or on behalf of students interested in learning about aquaculture and marine trades," said Nancy Balcom, associate director for Connecticut Sea Grant and senior extension educator for UConn Extension. "When I took over his position after he left Sea Grant, I knew I could never fill his boots, given his breadth of experience, his focus on the enormous possibilities offered by this new industry and his ability to bring people together to work collaboratively toward common goals. It's been inspiring to see what he was able to accomplish during his career."

From Sea Grant he moved to his position as coordinator of the Sound School, where he helped oversee the school's curriculum, develop educational programs and supervise staff.

Peter Solomon, teacher at the Sound School for 14 years, is now filling Visel's shoes as coordinator.

"I can comfortably say The Sound School as we know it today would not exist without Tim," Solomon said, adding that Visel served as his mentor and always reminded him, even through the difficult times, that they were doing it for the students.

"He was really good at refocusing on what mattered most, which was doing what was right for the kids, and for really allowing and encouraging innovation and change in education," Solomon said. Visel also served as an encyclopedia of knowledge about the Connecticut shoreline, oystering, blue crabs and other topics, which made him an invaluable resource for the school, Solomon said.

"I learned a lot from Tim's stories and experience, and that's why I was like, 'I need your personal email,'" Solomon said. One of the last educational programs that Visel helped create with Solomon was an artificial oyster reef using concrete reef balls placed in the school's harbor where oysters could attach.

"We became the first place in Connecticut to use subtidal reef balls and to start restoring an oyster reef," Solomon said. "The pilot project that he inspired had tremendous success."
In addition to inspiring groundbreaking educational projects such as this, Visel

Students at The Sound School prepare air tanks as part of a diving lesson in June. Photo: Judy Benson

was also prone to getting excited about seemingly insignificant finds. One such time was when a student brought Visel a tray full of sapropel, a type of black mud found at the bottom of the school's harbor that is rich in organic material and sulfur.

"He got so excited. He said, 'this is the stuff, I'm going to bring it to my conference tomorrow,'" Solomon said, adding that the student who brought Visel the tray "had never seen anyone get that excited about a pile of mud," sometimes also referred to as "black mayonnaise."

"That was how Tim was. He could just light up when he was doing this work," Solomon said.

As the school moves forward without him there every day, Visel is hopeful that it will continue to impact students.

"It's been a bumpy ride, and hopefully the schools will thrive," Visel said. "I think it's important to the future, to the schools, that they keep up with the industry."

The schools are especially relevant, Visel says, as climate change impacts intensify.

"People say, 'Tim, should we be concerned about this warming?' Yeah, because the fishermen are going through it right now," Visel said.

The effects of climate change on species in Long Island Sound can be varied, he added. The blue crab population in the Sound has taken off in recent years, Visel said, but lobsters in Connecticut waters have become scarce. Ultimately, aquaculture education is vital for dealing effectively with the effects of climate change, he said.

"Climate change is a real serious problem, and a lot of what happens to inshore waters, because they're shallow and they warm up quickest, we can see first," Visel said.