



Chilean educators learn from Aquaculture School

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BRIDGEPORT — With a coastline stretching 6,435 kilometers, it would seem Chilean educators could probably teach the staff at the Bridgeport Regional Vocational Aquaculture School a thing or two about the sea.

But seven educators from the South American republic came away this week with three-inch binders stuffed with lesson ideas from the local school, and the image of Carla Ebmeyer's students using candy and balloons to visualize what happens to molecular energy levels during photosynthesis.

"Sometimes you have to see it to learn it," Ebmeyer said as Alejandro Buschmann and his colleagues sat in the back of her biology class taking notes at one point during their weeklong visit.

Buschmann, director of the I-Mar Center at the University of Los Lagos in Puerto Montt, Chile, has previously visited the Aquaculture School. He returned to the school with colleagues — two from the college level, and four high school and middle school instructors — to give them guidance for developing Chile's aquaculture instruction.

"I won't say things like that do not happen in our country, but it is not common," said Buschmann.

In most cases, the science instruction students receive in Chile come in the form of lectures. Students don't ask questions. They take notes. They memorize. There is little interaction.

"Now there is a shift to increase the competencies of students," Chilean educator Valeria Fuster said in Spanish, with Buschmann translating for her. "We want students that have the capacity to deal with the real world."

Chile is the world's second largest producer of salmon, after Norway, and the top supplier of salmon to the United States.

In Chile, aquaculture schools provide the educational background for workers with technical skills, but not a lot of scientists, researchers or professors. That will change if the level of science instruction is strengthened, said Buschmann.

For some time, he has collaborated with Charles Yarish, a professor of marine science at the University of Connecticut's Stamford branch. Yarish urged Buschmann to visit the local Aquaculture School.

Buschmann decided to pay a visit, using a grant from the National Science Agency of Chile. The group arrived Monday and is scheduled to stay through today. In addition to visiting the school, the Chileans saw the Sound School in New Haven, the National Oceanic and Atmospheric Administration lab in Milford, the Norwalk Maritime Center, UConn's Avery Point campus and Mystic Seaport.

Teachers who made the trip will train colleagues in methods they learned.

Hector Toledo, from the department of natural resources at the University of Los Lagos, will brief Chilean school authorities about the collaboration between college and high school students. He was fascinated with the ability of students here to earn college credits while still in high school, both from the standpoint of student motivation and validating the level of learning taking place in high school.

Buschmann liked seeing students participating in real research, such as the state's lobster v-notching program, an effort to help restore Long Island Sound's lobster population.

He hopes to get grants to pave the way for teacher and student exchanges between the Aquaculture School and his homeland.

The group brought with them drafts of two textbooks to get critiques from the local aquaculture staff. The school helped create "hands-on" activities and assessments to go along with lessons in the books.

Many of the activities encourage students to come up with answers, said John Curtis, director of the Aquaculture School.

Curtis, along with Kirk Shadle, an instructor at the center, has visited Chile. "They want to do the same thing for their students that we are fortunate enough to do for ours," he said.

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