

FARMING SEAFOOD

More federal funds likely to flow to UNCW project

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WRIGHTSVILLE BEACH - As people touring UNCW's fish farming research complex sweated out a summer scorcher Wednesday, the black sea bass enjoyed what felt like a comfortable spring day.

That's because scientists are keeping a series of 6-foot-wide tanks at 70 degrees and limiting sunlight for part of the day to mimic the breeding season.

"We've basically tricked these fish into thinking its springtime," said Chris Woolridge, a University of North Carolina at Wilmington graduate student.

As a result, fish that normally spawn from March to June stay in the mood through August. The breeding experiments, which researchers here hope will produce year-round spawning one day, are part of a growing mariculture facility designed to establish commercially viable flounder and sea bass farms.

It was showcased before legislative aides and journalists Wednesday at Wrightsville Beach.

The lab, which has received \$300,000 in federal and private grants, owes most of its development to \$975,000 in funding from the U.S. Department of Agriculture.

This year, the facility is on track for more congressional aid. The House has budgeted \$324,000 for the mariculture complex while the Senate has proposed a \$450,000 appropriation. The two chambers will work out a compromise later this year.

Built atop the site of a U.S. Department of Interior desalinization plant that closed in the early 1980s, the research facility off Salisbury Street now actually depends on salt to make its mark.

The scientific community has a good understanding of how to raise catfish and other freshwater species, but methods for farming saltwater fish aren't as well developed, explained Wade Watanabe, the UNCW professor leading the research effort.

Marine species have complex life cycles and little is known about how to grow them quickly in captivity, Dr. Watanabe said.



Staff Photo | Jeffrey S. Otto

As UNCW Chancellor James Leutze (left) looks on, graduate student Chris Woolridge shines a light on black sea bass hatchlings during a tour Wednesday of the school's mariculture project.



Staff photo | JEFFREY S. OTTO

UNCW is on track to get a federal funding boost for a project at Wrightsville Beach where the school is researching the cultivation of these black sea bass and other fish.

The work is particularly important considering dozens of commercially important fish species continue to experience declining stocks.

"It's clear that we're going to have to rely on farm-raised seafood in the future," he said.

Further down the road, the university would like to try releasing into the wild fish reared at the facility, said UNCW Chancellor Jim Leutze.

"This will have enormous significance if we're able to do this," he said, because it could open up another avenue to boost fish populations in the ocean.

First, the researchers have to determine the fastest, most reliable way to raise the fish. They're experimenting with hormone pellets to induce spawning, testing how different levels of light exposure affect development and trying out different fish densities to optimize growth.

One particularly difficult step is feeding flounder and sea bass that are less than a week old. The flea-size fish eat small meals - microscopic animals called rotifers. And

the rotifers dine on even smaller microalgae.

The researchers have learned to grow the algae in bubbling cylinders that stand 4 feet tall. That makes it possible to raise the rotifers, whose sluggish nature make them an easy meal for the developing fish.

A key test will come at the dinner table. The researchers want to find out how the farm-raised fish taste compared to wild fish. Black sea bass, much of which gets sold in the Northeast as sushi, goes for \$4 to \$5 per pound, said researcher Kim Copeland, but only if it meets the standards of the high-end market.

The lab plans forays into shellfish mariculture if the additional federal funds arrive.

Already the mariculture center can boast of its first sale. An Israeli company bought 70,000 fish embryos earlier this year. UNCW split the \$600 sale with a South Carolina company that packages the embryos.

"That's almost a penny each," Dr. Watanabe said.