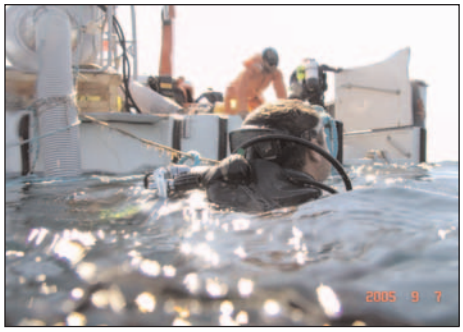
Innovative Research and Technology for Healthy Oceans

atlantic marine aquaculture center

ATLANTIC HADDOCK HARVEST

Once a favorite of New England seafood lovers, Atlantic haddock had nearly disappeared from the menu by the early 1990s, when wild stocks reached a historic low. Today, thanks to recovering fisheries and advances in aquaculture technology, this light flaky fish may be making a comeback. In September 2005, the Atlantic Marine Aquaculture Center at the University of New Hampshire harvested the first crop of market-sized haddock to be raised on the open ocean in United States waters.



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HADDOCK CULTURE EMERGES

By the early 1990s, haddock's popularity in eastern North America had motivated researchers in New England and Atlantic Canada to explore its potential as a farmed crop. After more than a decade of preliminary research, a partnership between Canadian government laboratories and Heritage Salmon, Ltd., made large-scale production of juvenile haddock a reality.

This collaborative research catalyzed the development of techniques in broodstock management, spawning, larval rearing, and feed formulation. By 2000, pilot crops of haddock were being raised in nearshore salmon pens in New Brunswick, Canada.

CULTURE MOVES OFFSHORE

In 2002, the University of New Hampshire's Atlantic Marine Aquaculture Center teamed up with Heritage Salmon, Ltd. Three thousand juvenile haddock, each weighing about half an ounce, were shipped to UNH's Coastal Marine Laboratory. After a three-month stint in nearshore nursery cages, the fish were transferred to a submerged cage, six miles off the New Hampshire coast.

The haddock were fed a chemical-free, formulated diet, delivered from a surface feeder that pumps water mixed with food into the submerged cage. Researchers monitored and controlled feeding operations by wireless communications technology.

The first of its kind, this feeder has led to the design a 20-ton feeder, capable of servicing commercial size crops in several cages simultaneously.

HADDOCK HARVEST

Researchers harvested the crop of Atlantic haddock in September 2004. The crop yeielded 15,000 pounds of whole fish, or about 7,000 pounds of filets that earned high marks for flavor and freshness.

FUTURE PROSPECTS

Results suggest that Atlantic haddock is a good candidate for open ocean culture. The fish grew well—from a half an ounce to nearly five pounds—and further research on feed formulation and maturation control will likely improve growth rates. Mortality was very low; and there was no incidence of disease. None of the haddock escaped from the cage, and a rigorous monitoring program has detected no impact on the surrounding environment.

WHERE CAN I LEARN MORE?

For more information on our offshore finfish culture research, please contact Dr. Hunt Howell, UNH professor of zoology: whh@cisunix.unh.edu.

VISIT US ONLINE:
HTTP://OOA.UNH.EDU

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The Atlantic Marine Aquaculture Center is a partnership of the National Oceanic and Atmospheric Administration and the University of New Hampshire.