

# DOWNEAST INSTITUTE

## FOR APPLIED MARINE RESEARCH & EDUCATION

[Home](#)  
[About Us](#)  
[How You Can](#)  
[Support DEI](#)  
[Current Research](#)  
[Soft-Shell Clam](#)  
[Stock Enhancement](#)  
[Published Research](#)  
[Directions](#)  
[Contact](#)

## HISTORY OF DEI

The collaborative effort that grew to become the Downeast Institute began in 1987 on the clam flats of six Washington County communities. Clammers and town officials, concerned about declines in soft-shell clam harvests, teamed up with Dr. Brian Beal, a professor of marine ecology at the [University of Maine in Machias](#). They created the Beals Island Regional Shellfish Hatchery (BIRSH) - a facility where wild clams were spawned, clam larvae and juveniles reared on diets of cultured algae, and seed clams produced for planting on the depleted municipal flats.



**Beals Island Regional Shellfish Hatchery on Perio Point in the town of Beals was DEI's home from May 1987 to June 2003.**

BIRSH, as the program came to be called, opened the doors to its 1,600 square-foot-facility on a wharf overlooking Moosabec Reach in May 1987. It was Maine's first public shellfish hatchery.

Over the next 16 years, the former clam shucking shed produced hundreds of millions of seed clams for more than 40 Maine coastal towns and a handful of communities in New Hampshire and Massachusetts. Shellfish production efforts and the accompanying applied research were conducted under Dr. Beal's direction by a mix of UMM work study students and staff paid with public and private grants. BIRSH developed techniques for growing, overwintering, and seeding clam flats, passing along those technologies to municipal shellfish committees, clammers, and the scientific community through published articles in a number of research journals.

In 1996, BIRSH organized as a non-profit 501(c)(3) corporation. Its [Board of Directors](#) includes residents of Maine's coastal communities as well as specialists in marine resources, education and economic development.

In 2000, the Board changed its name from BIRSH to the Downeast Institute for Applied Marine Research and Education (DEI) to more accurately reflect its mission.

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During the summer of 2003, DEI worked to purchase a building at Trio Point (Beals Island) in Mackinac Island (Great Wass Island) with the goal of renovating a 9,600 square-foot building that had previously been used for storing oysters into a shellfish production facility. In addition, the DEI board had its sights on creating the

easternmost marine research laboratory and education center in the US.



**Lobster holding facility at Black Duck Cove  
(Great Wass Island, Beals, Maine) in June 2003**



**Original wharf at Black Duck Cove  
(a lobster-buying station) in June 2003**

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In March of 2006, with help from the United States Fish and Wildlife Service, support of Maine  
senators Olympia Snowe and Susan Collins, and the **Maine Technology Institute**,  
**FOR APPLIED MARINE RESEARCH & EDUCATION** purchased a 10-acre site, a half acre and  
associated buildings at Black Duck Cove.

The site has more than 2,000 feet of deep water frontage and two working lobster pounds. The Institute has converted the property's former lobster tank building to a production/research shellfish hatchery and running seawater laboratory.



**In 2003, the lobster holding facility was converted to a working shellfish production facility**



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### Mass algal culture system at DEI

Recently, DEI has been able to complete one of its goals toward becoming the easternmost marine research laboratory and education center in the US. With grant funding through the Maine Technology Institute's Maine Technology Asset Fund and the National Science Foundation grant through the Partnerships for Innovation program, a state-of-the-art marine education center was constructed at DEI. This 1,000-square foot structure is well-equipped for classroom teaching, laboratory research projects, and other non-traditional classroom uses. It has running seawater, freshwater, white boards, and drop-down electrical boxes for microscopes, PC projectors, and other appliance needs. With an extensive floor drainage system, there is no limit to what organisms can be brought into the classroom, or what projects can be done. The classroom has enough seating for 30 people. The marine classroom/education center was designed by Sealander Architects (Ellsworth, Maine), and built by Pizzagalli Construction Company (Portland, Maine). It was opened in December 2010.

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**DEI's Marine Education Center under construction (July 21, 2010)**



**DEI's Marine Education Center under construction (August 20, 2011)**

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**DEI's Marine Education Center (April 2011)**

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