

NEMAC NEWS

Northeastern Massachusetts Aquaculture Center
Department of Biology
Salem, MA 01970

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North Shore shellfish populations will benefit from aquaculture efforts at the Cat Cove Marine Laboratory. Over 30,000 soft shell clams (*Mya arenaria*) obtained from the Beal's Island Regional Shellfish Hatchery in Maine last September were successfully over-wintered. Most of the clams now exceed 10 mm size and will be released in Eagle Hill River, Ipswich, to enhance local populations. With care provided by commercial fishers from Ipswich and cooperation from Division of Marine Fisheries these clams should attain market-size in two years and augment the commercial harvest of wild clams.



Scott Weston feeds immature clams at the Cat Cove Marine Laboratory

Building upon experiences gained from growing our first batch of soft shell clams, a second shipment of 200,000 clams arrived on 29 June 2000. By mid August these clams had grown from 1.4 mm to over 5 mm in shell length. Once

they attain a suitable size for release, sites in Ipswich, Gloucester, and other North Shore communities will be identified for enhancement/restoration of diminished populations.

On 23 July, Scott Weston's (laboratory Technician) persistence paid-off, approximately 1,000,000 fertilized eggs spawned from local soft shell clams. Parental clams, obtained from tidal waters of Cape Ann, required nearly two months of daily attention before they were induced to spawn. The young clams have been successfully reared through their planktonic larval stage and have metamorphosed into the bottom loving organism so familiar to bivalve connoisseurs. With this successful spawning of local clams we can use native soft shell clams for future restoration and enhancement efforts.

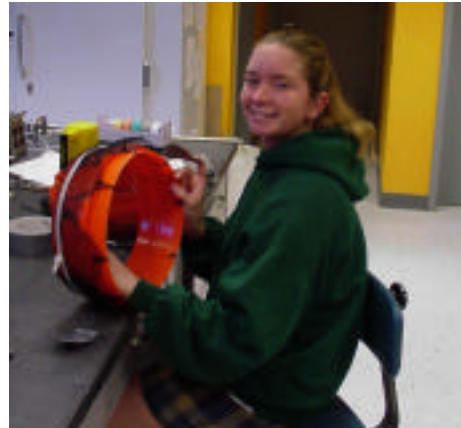
Gloucester linkages with the Northeastern Massachusetts Aquaculture Center continue to grow. **Introduction**



to Aquaculture (BIO 203) will be offered this fall as an interactive, hands-on, practical exploration of how sustainable aquaculture can be practiced by commercial fishermen to augment their income while continuing to work on the water. The 3-credit course is offered as part of Salem State College's program in Continuing Education; it will meet Wednesday evenings between 6-9 p.m. in room 2404, Gloucester H.S.

Summer initiatives at the Cat Cove Marine Laboratory focused on clam spawning and culture with occasional diversions into finfish culture, targeting red hake and tilapia. Biology majors from Salem State College, Tara Pelletier and Jason Best, and Kevin Kyle (Aquaculture major, University of Maine) provided for the daily maintenance and care of organisms. Efforts ranged from monitoring and adjusting water quality to feeding and record keeping. The students gained a wealth of experience in hatchery management, fish/shellfish biology, and applied ecology. Additionally, they had numerous opportunities to synthesize the insight they gained and nurture communication skills as they shared their knowledge, skills and enthusiasm with tens of middle school students

participating in summer programs at the Cat Cove Marine Laboratory.



Tara fabricates a sorter used in culture of young clams

Also gaining aquaculture insight were 8 local teachers that participated in *Shellfish Biology* a one-week summer institute instructed by Dr. Fregeau.

Aquaculture at Salem State College has a **new** and readily accessible **web site** <http://www.salemstate.edu/biology/aquaculture/>. The website is not only informative biologically, it is “spiffy” thanks to the talents of Derek Barr, Dick Walsh, and Nick Giarratani (Media Services, Salem State College).

Calendar

- Fall *Introduction to Aquaculture* (BIO 203) and *Aquaculture Methods* (BIO 205) instructed at Cat Cove Marine Laboratory, Salem State College and *Introduction to Aquaculture* (BIO 203) instructed at the Gloucester H.S.
- 1-2 October First Annual Southern New England Aquaculture Conference, Salve Regina University, Newport, RI. (co-sponsored by NEMAC)

For more information regarding aquaculture initiatives by NEMAC and Salem State College or to be added to our Newsletter mailing list contact the Cat Cove Marine Laboratory at 978-542-6821 or Dr. Joe (jbuttner@salem.mass.edu) or Dr. Fregeau (mfregeau@salem.mass.edu)