SEMAC Budget Set at $50k through June 2010

**Update: by Bill Burt**

When the SEMAC Board met in September of 2008 to develop an FY 2009 budget proposal for MA DAR, members identified several major issues confronting the shellfish culture industry in Southeastern Massachusetts as budget request categories. These included: shellfish disease, unexplained mortalities in Wellfleet Harbor, public acceptance/perception of private shellfish leases and ongoing competition within the marketplace. Of greatest concern was shellfish diseases, which remain a very large problem in some areas, with Dermo, MSX and QPX causing catastrophic losses during recent seasons. In addition, there has been some large scale, unexplained and very worrisome mortality of hard clams in areas within Wellfleet Harbor over the last two years. The board also recognized that growers are met with continued public scrutiny regarding lease operations and new leases; while at the same time, face ongoing competition in the marketplace from shellfish harvested in other areas of the country. One possible idea discussed to address this public perception and acceptance problem was the pending requirements towns will face regarding Total Maximum Daily Loads (TMDLs) and the restoration of estuaries. This may offer an opportunity to demonstrate the potential role which shellfish aquaculture may play in remediation efforts; and it was thought that coastal communities, which may be required to adopt mitigation plans to improve estuary water quality, will see expanded private shellfish leases and increased production as a cost effective mediation mechanism to include in such a plan. The value of the Research Farm Network and ongoing water quality monitoring were also discussed and were seen as valuable parts of an overall program to address those issues facing the industry. After considerable discussion the board voted to request a two year budget of $200,000.00. through 2010 to address the issues cited above. This original request was submitted later in the fall of 2008, but with state budget uncertainties and cutbacks MA DAR was unable to fund that request. Instead the center received a contract for $50,000.00 in April for the two year period, of which $45,000.00 was set aside in the

FDA Proposal Sparks Concern at ISSC and Among the Nation’s Oyster Growers

**Several news sources**

In a surprise letter and speech at the Interstate Shellfish Sanitation Conference (ISSC) in Manchester, NH this past month, officials from FDA announced a proposed ban on oyster sales from the Gulf states during the summer months, unless the oysters undergo post-harvest treatment. The proposed ban is intended to deal with the health concerns related to the bacteria vibrio vulnificus, which is a naturally occurring bacteria of warmer waters, and which can cause intense sickness and even death in individuals who have compromised health conditions. The action on the part of FDA was not well received by ISSC or by the oyster industry which has been working on this issue for years, and up to that meeting in Manchester on Oct. 17, had the agreement of FDA on a plan as to how to deal with the problem. In a response letter to FDA the ISSC wrote: “The ISSC was surprised, confused, and very disappointed by the timing and the actions proposed in the USFDA letter. The ISSC has a working Memorandum of Understanding (MOU) with the USFDA which recognizes the ISSC as the primary body for consultation on matters involving molluscan shellfish. The USFDA did not consult with the ISSC prior to deciding on the continued on page 3
Josh Reitsma joins SEMAC staff

Dr. Bill Walton’s departure to Auburn University was a sad day for SEMAC staff and friends, who had grown accustomed to his friendly manner and fine research; but the center was indeed fortunate in that Diane Murphy immediately stepped in and took over the Technical Coordinator responsibilities of SEMAC, which is a joint appointment between Cape Cod Cooperative Extension and WHOI Sea Grant. Diane has done an excellent job in her new position, and we are now very pleased to announce that Josh Reitsma has been added to the marine staff of Cape Cod Cooperative Extension and will serve as a research associate and field coordinator for SEMAC. Josh received his B.S from Unity College in Maine in 2002, where he majored in Environmental Studies, with a concentration in Aquaculture and Ecology. He completed his Master of Science Degree in Aquaculture from the University of Rhode Island in 2008, and served as the hatchery manager and biologist for Mid-Atlantic Aquatic Technology in Quinby, VA. Here he was responsible for the oversight of three employees and the overall operation of the facility, which is concerned that FDA has gone beyond what is needed to protect public health. “The folks who are members of ISSC have been dealing with this, and it has been a good working relationship between growers, wholesalers, regulators and health folks from various states. FDA has now stepped in and changed the game, that’s not the way it should be.” Other growers remain concerned that post-harvest treatment may be expanded to other states and will include the required post-harvest treatment for another natural bacteria of coastal waters called Vibrio parahaemolyticus. Bob Rheault Executive Director of the East Coast Shellfish Growers Association (ECSGA) believes its just a matter of time before post-harvest becomes implemented elsewhere, and noted, “the directive circumvents decades of cooperative negotiations between the industry, state regulators and the FDA.”

Visit the ISSC or ECSGA websites for further info: www.issc.org/ or www.ecsga.org/

“Spit and Chatter” - Growers’ Column

by John Milliken

First of all, let me introduce myself, to those I haven’t run across yet and bored to tears with bad sea stories. I’m a shellfish grower out of Eastham who got his start at the age of eight quahogging out of Rock Harbor with my father. Since then, I trained and worked as a boat builder, fished offshore and ‘alongshore for most anything, studied engineering and wound up around ten years ago working for grant holders in Wellfleet, where I learned what little I know of the business and where I still work when I’m not on my own grant in Nauset Marsh. And as of last week, I’m the brand new NRAC Industry Advisory Committee member for Massachusetts. But that’s enough about me. Too much, really. Let me briefly tell you a little about what the Northeast Regional Aquaculture Center (NRAC) is and does. They work with the other kind of grants, i.e. research grants, providing money for research projects to assist the aquaculture industry. The “RAC” system was set up by the USDA to have people like us work with scientists, extension folks and agencies like SEMAC to research things in the aquaculture business that help us grow our stuff more efficiently and to keep us informed and educated about issues in the business which are important to us or can help us. A whole lot more at: http://nrac.umd.edu/ where you can see what they have been doing, how they do it and what they are interested in doing in the future. Pre-proposal for this round of NRAC funding are due December 1st, 2009. Continued on page 4
Tech Talk – “Diploids and Triploids, Oh My!”

By way of Diane Murphy

The 2008 and 2009 Research Farm Network expanded to include 12 locations: Barnstable Harbor, Chatham, Cuttyhunk, Dennis/Cape Cod Bay flats, Eastham/Nauset Marsh, Ipswich, Onset/Buzzards Bay, Orleans/Pleasant Bay, Provine town, Wareham/Bourne Cove, Wellfleet Harbor, and Wellfleet/Indian Neck. The primary focus of research during this time period has been a quantitative side by side comparison of native diploid and triploid oysters. In July, 2008 we provided the participants with gear and sufficient diploid and triploid seed to stock their two standardized wire oyster rack and bag systems. Replicate 6 mm mesh bags (n = 6) were arranged in a completely randomized design within racks to allow an assessment of the effects of seed variety (diploid, triploid), site (12 locations), and spawning year (2008 or 2009), as well as any interactions. Farmers were asked to maintain the bags free of fouling, move the oysters to larger mesh bags when feasible, and protect them from winter damage. In October and November, 2008 the Research Farms were visited to collect data on the oysters. Samples of oysters were collected from each bag at every site and brought back to the lab for condition index. These data included wet weights for whole animals, shell lengths, as well as dry weights for shell and meats. The subsequent condition index is a ratio of how much dry tissue there is relative to the cavity volume. Interestingly, the diploids had, on average, a statistically higher condition index than the triploids across all sites. Conversely, there was an obvious effect of ploidy on shell length – triploids were on average longer at all sites but only statistically bigger at 8 of the 12. The four sites where the difference wasn’t statistically meaningful were among the sites with the smallest overall oysters.

Research Farms were re-visited in spring, 2009 to replicate the sampling that was performed during the prior fall. In June, 2009 another batch of triploid and half-sibling diploids (a spawn using native diploid males using the same females, to produce 50,000 half-sibling diploid oysters as a point of comparison in field trials) was conducted. Each of the participating farmers received on average 3,500 triploid and 3,500 half-sibling diploid seed for grow-out. In addition to this quantitative test, seedless oyster seed was also provided at a reduced price to the industry to encourage wide use of these seed on a trial basis, both to collect qualitative feedback and allow oyster farmers to see firsthand how seedless oysters will perform on their own farms. This additional seed was quickly sold out – interest and demand appears to be high.

We are now concluding our fall sampling period which included site visits to 11 locations containing 2 seed year classes held in 4 racks and 24 bags at each. We collected 10 oysters from each of the 2008 bags for condition index, 5 oysters from each for ploidy confirmation, as well as diploid/triploids from each site for disease testing. Samples of 2009 seed were also collected in similar manner, but only for condition index and weight.

Bill Walton at Auburn University is helping to process samples for condition index, VIMS (VA Institute for Marine Science) is providing ploidy confirmation, and Microtechnologies is performing histological examination for disease.

There’s a lot of analysis to get through, so stay tuned!

SEMAC’s work with triploids will be presented at Aquaculture 2010 in San Diego, CA next March.

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Fundamentals of Shellfish Farming:
Practical Tools, Tips & Techniques

A Course Offered by the Southeastern MA Aquaculture Center,
Cape Cod Cooperative Extension & Woods Hole Sea Grant

**Feb. 17th – April 7th 2010**

Wednesday Evenings, 6-8PM

This 8 week course will cover the basics of shellfish aquaculture, emphasizing practical, no nonsense information. Students will be introduced to the subject of shellfish aquaculture, progressing from an introduction to shellfish aquaculture to shellfish hatchery & nursery production to field grow-out of oysters and clams. Additionally, the course will include management of predators, pests and diseases, as well as providing basic information on business management and permitting.

Diane Murphy, the fisheries & aquaculture specialist for Cape Cod Cooperative Extension and Woods Hole Sea Grant teams with Henry Lind, former Director of the Town of Eastham’s Department of Natural Resources, Bill Burt and Josh Reitsma, marine specialists of Cape Cod Cooperative Extension to offer this course, along with guest speakers who do this for a living. They will emphasize tips, tricks and lessons learned.

The course will be limited to 14 students; and begins on Wednesday, February 17th and runs every Thursday through April 7th. The class will be held at the Barnstable County Farm Field Station of Cape Cod Cooperative Extension on Route 6A in Barnstable, and will meet from 6 to 8 pm. Additional optional field trips will be offered to enrolled students. (Times and dates to be determined) Cost for the 8 week course is $100.00. Students may audit the course or opt to take it as a certification course. Certification will be issued by the Southeastern Massachusetts Aquaculture Center Board of Directors to students with an exam score of 80% or better.

Registration is first come, first served and closes when class is full or on January 29, 2010. Payment must be included at the time of registration. If for some reason the course is cancelled a full refund of the course fee will be provided.

Contact Bill Burt at (508) 375-6702 or bburt@barnstablecounty.org for further info or a registration form.

**Upcoming Events**

December 18
*Massachusetts Aquaculture Centers’ Meeting*
UMASS Experiment Station, Waltham, MA

January 22nd, 23rd
*MA Aquaculture Centers Booth (Tentative)*
MA Municipal Assoc. Annual Meeting & Trade Show
Hynes Convention Center
Boston, MA

February 8th-10th
*30th Annual Milford Aquaculture Seminar*
Courtyard by Marriott, Shelton, CT

Feb.17th thru April 7th
Fundamentals of Shellfish Farming Course
Farmhouse, Barnstable, MA

March 1st-5th
*Aquaculture 2010*
San Diego, California
Information – [www.was.org/](http://www.was.org/)

March 14th-16th
Boston Seafood Show
Boston Convention and Exposition Center

**Mark Your Calendars**

Massachusetts will be hosting the Northeast Aquaculture Conference & Exposition (NACE) in 2010 Dec. 1,2,3 at the Radisson Inn in Plymouth, MA. Stay tuned for details.

Both a web site and registration will be available by mid-January 2010!