

The Department of Planning anticipates the entire application process (pre-application meetings with prospective lease applicants, lease application submission, public notice and comment review, and Aquaculture Lease Board decision-making) will be conducted during the coming year to determine those sites eligible for lease and identify the applicants that will be able to proceed in the program.

As the Shellfish Aquaculture Lease Program moves into its second year of implementation the Dept. will continue to be an advocate for Shellfish Aquaculture in New York, while persisting in its efforts to improve the Lease Program.

AN APPROACH TO STUDY THE FEEDING BEHAVIOR OF MUSSELS IN THE FIELD. Eve Galimany¹, Montserrat Ramón², Irintzi Ibarrola³, and Gary H. Wikfors¹. ¹U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center, Milford Laboratory, 212 Rogers Avenue, Milford, CT 06460, USA; ²IEO-Centre Oceanogràfic de les Balears, Moll de Ponent s/n, Palma 07015, Spain; ³Dpto. Genética, Antropología Física y Fisiología Animal, Facultad de Ciencia y Tecnología, 10 Universidad del País Vasco/Euskal Herriko Unibertsitatea, Bilbao 48080, Spain. esanroma@clam.mi.nmfs.gov

Mussels are suspension-feeding bivalves that can remove large quantities of organic matter from the ecosystems they inhabit, especially sites with high aquaculture production. Although different approaches have been used to study the feeding behavior of mussels, there is still a need to study such behavior in the field minimizing as much as possible the disturbance of the mussels to obtain more realistic data. To this end, two portable, flow-through devices were designed to simulate *in vivo* conditions of mussel feeding, and the biodeposition method was used to determine mussel (*Mytilus galloprovincialis*) feeding behavior and physiology in a Mediterranean estuary where bivalve aquaculture takes place. The study was performed at four different periods of the year following the mussel culture cycle to track seasonal differences. The results showed that short-term variations in food quantity and quality were similar to the long-term variations. Nevertheless, the bay water was characterized by a high organic content, with *f* (Particulate Organic Matter/Total Particulate Matter) values ranging from 0.48 to 0.73. Physiological variables characterizing both food acquisition and absorption were found to vary in the short-term; however, we found high clearance rate and absorption efficiency values throughout the study. Mussels reduced clearance rate instead of increasing pseudofeces production when seston concentrations were high in the bay. The absorption efficiency was positively related to the organic content of the seston particles. The physiological variables measured in the mussels decreased when the bay water temperature increased during summer. Recent

studies show that bivalves can improve water quality through filter-feeding capacity to clear microalgae and detritus from suspension, thereby mitigating some effects of eutrophication. A similar approach to the above-described study will be used to quantify particle removal and nutrient absorption by the native ribbed mussel (*Geukensia demissa*) in an experimental nutrient-bioextraction project in the Bronx River in New York City.

COMMUNITY SUPPORTED AQUACULTURE: INVESTING IN THE FUTURE OF LOCAL SHELLFISH FARMS. Tessa Getchis¹, Anoushka Concepcion¹, Katherine Blacker² and Karen Rivara². ¹Connecticut Sea Grant, University of Connecticut, 1080 Shennecossett Road, Groton, CT 06340; ²Aeros Cultured Oyster, LLC and Noank Aquaculture Cooperative, 100 Main Street, Noank, CT 06340. tessa.getchis@uconn.edu

According to market research consumers are changing their food buying habits and there is a trend toward purchasing products that are grown locally and by farmers/farms that people are familiar with. Community Supported Agriculture operations or "CSAs" act as a mechanism for community members to invest in a farm prior to the production season, assume a shared risk with the farmer, and receive a return on their investment - usually fruits, vegetables, or other farm products. CSAs has become a popular business structure for traditional land-based agriculture as a means to supply local agricultural products to consumers and also as a way to resolve the general disconnect among consumers, food production and farmers. CSAs have also become trendy among consumers, who are often willing to pay more for CSA products than their conventionally marketed equivalents. This type of business structure is gaining appeal of other food production industries including aquaculture.

A preliminary assessment of shellfish consumers in towns across Connecticut revealed a widespread interest in having access to local shellfish and a desire to support the development of shellfish CSAs. Ninety percent of those surveyed (n = 128) expressed a willingness to pay a premium for shellfish grown locally. Respondents were willing to pay a premium of at least \$0.50 to more than \$2 per pound greater than the average product price. In addition, a survey of municipal shellfish managers who use shellfish for stock enhancement or restoration efforts revealed that their demand regularly exceeded supply. Respondents stated that they either imported shellfish seed from outside of Connecticut or purchased expensive market-sized product from commercial harvesters. Many of these commissions also expressed interest in investing in a CSA as means of supplying their shellfish demands. These and other data will be used to determine the feasibility of establishing the Connecticut's first shellfish CSA.