



## Projects Proposed to Benefit the Industry

The Florida Aquaculture Review Council (ARC) wants to stimulate the growth of aquaculture in Florida and requested Statements of Interest for the development, coordination, and implementation of technical, market, demonstration, and educational projects early this year. As a result, 13 projects were submitted by investigators and reviewed at the ARC's April meeting. Of those, nine were selected to develop full proposals. The nine investigators made presentations to the ARC on June 28.

As a result of this meeting, the projects were ranked by the ARC and submitted to Charles Bronson, Commissioner of Agriculture, for his consideration as budget items for fiscal year 2002-03. Over the past few years, the ARC ranking has become a critical step in the process of seeking state funds. Submitted projects are listed in priority order with the amount requested.

1. Commercial Scale Penaeid Shrimp Demonstration in Inland Freshwater Systems by Aquaculture Advisory Committee, Indian River Research and Education Center, University of Florida. \$235,368.
2. Educational Training Workshop: Current and Potential Aquaculture Opportunities in Florida by Florida Aquaculture Association. \$20,000.
3. Developing Marine Fish Hatchery and Nursery Culture to Expand Florida's Aquaculture Industry by Mote Marine Laboratory, Florida State University and Florida International University. \$501,925.

4. Environmentally Friendly Clam Harvesting Machine by G&L Associates, Inc. \$122,790.
5. Hybrid Striped Bass Hatchery and Fingerling Facility by Blue Heron AquaFarms, LLC. \$1,320,250.
6. Induced Spawning of Marine Ornamental Fish Using Sustained Release of Gonadotropin-releasing Hormone by Florida Institute of Technology. \$80,572.
7. "Eco-Gorgonian" Propagation for the Marine Ornamental Trade by Hillsborough Community College and Sea Critters. \$58,600
8. Freshwater Shrimp Production Demonstration Project by South Florida Resource Conservation & Development Council, Inc. \$649,000.
9. Eco-tank Floating Finfish Production System by Sweetwater Seafood, Inc. \$639,500.

The ARC also reviewed summaries of state-funded aquaculture programs at the University of Florida, Hillsborough Community College and the Department's Divisions of Marketing and Aquaculture. The ARC commented to the Commissioner that "these programs have a long history of providing good and necessary assistance" and that "the State should provide the funding necessary for them to accomplish their goals."

For information on the projects or the Aquaculture Review Council, contact Karen Metcalf (metcalk@doacs.state.fl.us or 850-488-4033).

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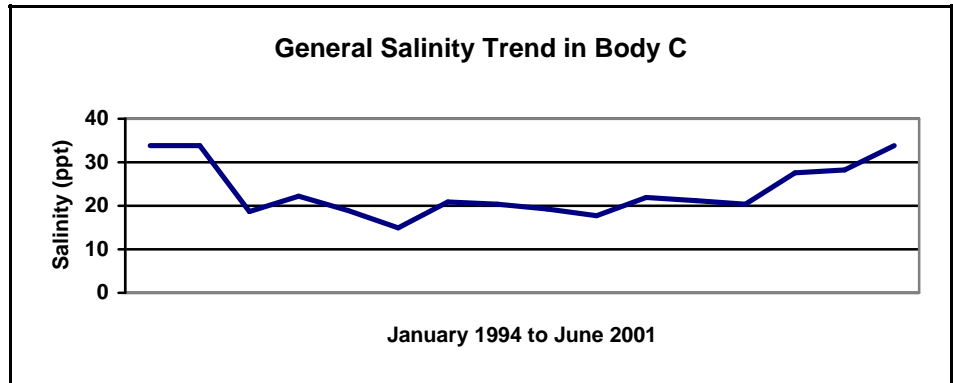


# Salinity Levels Improve in Body C

During 1995, an influx of freshwater as surface flow from Merritt Island reduced salinity levels in North Body C in the Indian River. Low salinity concentrations would not support hard clam cultivation. This low salinity condition persisted and forced approximately 20 leaseholders to stop production. The Division did not want to subject clam farmers to unreasonable risk and losses and allowed leaseholders to deviate from the cultivation requirements in their lease agreements. Instead of terminating the leases in North Body C, the Division hoped that water quality would return to levels where cultivation could be resumed.

The Division manages 1.4 million acres of coastal submerged lands for shellfish production and continually collects water quality data, including salinity. Salinity measurements from North Body C indicate salt concentrations have increased above 20 parts per thousand and remained above this value since January 2000. This positive salinity trend suggests that conditions should be favorable for hard clam production.

This water quality data is available from the Division and should encourage growers to begin cultivating clams in this area. Leaseholders should consider the option to initiate planting this fall, or by spring 2002. Initially leaseholders will not have to meet their effective cultivation requirements, but they should anticipate increasing production to meet these requirements if initial grow-out efforts prove successful. North Body C leaseholders that do not expect to plant during the upcoming season (fall 2001 or spring 2002), should consider the option of terminating their leases. Also, several leases in Body C will be up for renewal over the next few years. If leaseholders plan to renew their leases, then they should demonstrate their intentions to perform effective cultivation. Contact Mark Berrigan, 850-488-4033, for Body C water quality data or related questions.



## New York Hard Clam Size Limits Challenged

Unrestricted sale of farm-raised hard clams does not occur in the largest market for clams in the United States. New York, Massachusetts and Rhode Island specifically prohibit the sale of hard clam (*Mercenaria mercenaria*) less than one inch in size. New Jersey prohibits the sale of hard clams less than 1.5 inches. Substitutable products, manila clams and New Zealand cockles, are sold without size limitations. An informal coalition of state agency and shellfish aquaculture extension representatives from Florida, Virginia, North Carolina and South Carolina has been seeking a change to the New York regulation since 1998. During the recent Fifth Annual Hard Clam Industry Meeting hosted by Leslie Sturmer, UF-Shellfish Extension Specialist, industry participants suggested that other state departments of agriculture be contacted to recruit support. As a result Commissioners from Virginia and North Carolina have joined Charles Bronson, Florida Commissioner of Agriculture, in writing letters requesting assistance from the New York Department of Agriculture to exempt farm-raised clams from the one-inch limit.

## Portable Marine Toilets Available

Shellfish harvesters and farmers that use open boats that are not equipped with a head are invited by the Division of Aquaculture to apply for and receive a portable marine toilet. The Division has purchased 1,800 toilets to improve the on-board, sanitary handling of human waste by Florida shellfish harvesters and farmers. The toilets will be available on a first come, first served basis until all the units are distributed. Applicants must demonstrate their commercial or aquaculture status by supplying an Apalachicola, Brevard or Saltwater Products License with Restricted Species Endorsement, trip tickets indicating commercial landing of oysters or clams or an Aquaculture Certificate of Registration number. Currently, the Division has proposed amendments to Rule 5L-1.008 (3), Florida Administrative Code that require improved human waste handling. This one time opportunity to acquire a portable marine toilet assists the industry in meeting and exceeding the new standards. Temporary distribution centers may be set up around the state depending upon demand. Contact Tom Hudson, 850-653-8317, for further information.



# *Vibrio vulnificus* Risk Reduction Plan Adopted

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The Interstate Shellfish Sanitation Conference (ISSC), which provides the national uniform human health guidelines for all states and the shellfish industry to follow, has been aggressively addressing illnesses and deaths associated with consumption of raw shellfish containing the naturally occurring marine bacteria *Vibrio vulnificus*. During July 2000, at the ISSC annual meeting, the implementation of a mandatory "*Vibrio vulnificus* Illness Reduction Plan" was postponed. Following the ISSC meeting, the Division of Aquaculture coordinated meetings with the Florida shellfish industry to discuss the idea of developing a Draft Florida Plan using the ISSC proposed Plan as a guide. The consensus was that it was preferable to take a leadership role and cooperatively develop a Florida Plan. A small workgroup with broad representation (shellfish industry, academia, seafood trade association, federal health agency, and state health agencies) met on two occasions and came to consensus on the "Interim Florida Voluntary *Vibrio vulnificus* Risk Reduction Plan For Shellfish".

The goal of the Interim Plan will be to reduce the rate of shellfish-borne *Vibrio vulnificus* septicemia illnesses reported from the consumption of commercially harvested raw or inadequately cooked oysters in Florida from Florida produced oysters or from oysters processed by Florida certified processors. The Interim Plan includes the following strategies that are to be cooperatively implemented by the shellfish and foodservice industries, state and federal agencies and academic community:

- Work with the oyster industry to craft a *Vibrio vulnificus* Management Plan incorporating the Best Management Practices for *Vibrio* to reduce illness and deaths associated with consumption of Florida oysters.
- Craft and deliver specific educational programs on potential risks of consumption of raw foods containing *Vibrio vulnificus*. Target educational efforts to include all at-

risk groups and their health care providers.

- Work with Department of Business and Professional Regulation and the Florida Restaurant Association on adoption of the Model Food Code consumer message for oysters as well as prominent display of the current consumer information statement.
- Determine the local economic impacts on the oyster industry of specific post harvest treatments, limits of harvesting, and other potential controls.
- Develop a "Florida White Paper" on existing and emerging post-harvest treatment technologies.
- Work with the federal government and Congress to further develop post harvest treatment technology.
- Sponsor demonstration projects for post harvest treatment processes, for example, offshore cleansing and complete the demonstration projects for heat shock and dockside icing.
- Compile analytical data concerning *Vibrio vulnificus* levels in Florida waters and Florida oysters and conduct environmental *Vibrio* sampling program to fill in various data gaps.
- Increase harvester education with current harvesting requirements: shading, time to refrigeration, and other current control measures.

- Increase retail and food service education efforts in proper handling and preparation of shellfish to control and reduce potential illness.
- Work with industry and law enforcement personnel to increase compliance with current harvesting requirements: shading, time to refrigeration.
- Determine potential addition of value for products undergoing post harvest treatment.

In addition, the shellfish industry must select and prepare for implementation of one or more of the following controls to reduce illness: product use restrictions and labeling, post-harvest treatment, shellfish harvest area closures, on-board product icing or refrigeration or summer month early morning or late evening harvesting. The industry and Division of Aquaculture are to develop an incentive program to encourage industry to implement the identified controls.

The industry-agency workgroup will meet at least annually to review progress to implement the Interim Plan and deliver an annual progress report. For a complete copy of the Interim Plan and additional information, contact David Heil, 850-488-5471.

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## Residents Apply for Alligator Harbor Leases

The Division of Aquaculture received 66 applications, as of early July, for the 40 lease parcels that make up the Alligator Harbor Aquaculture Use Zone. The Division began accepting applications on June 18th. Qualified applications were accepted on a first come, first served basis. Leases will be awarded in order of preference to Franklin County residents followed by Wakulla County residents.

The Franklin County Board of County Commissioners requested that the Division identify sovereign submerged lands in Alligator Harbor that would be suitable for hard clam culture. As a result of natural resource surveys and a clam growth test, a 100-acre tract along the northern shore of Alligator Harbor was selected. The Division, in January, prepared a recommendation for an Aquaculture Use Zone which was approved by the Governor and Cabinet. Applicants will be evaluated to determine qualifying applicants and the list of applicants will be taken before the Governor and Cabinet to seek approval for individual lease parcels. Contact Mark Berrigan, 850-488-4033, for additional information.

## Controlling Wildlife Damage

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A wide variety of wildlife species damage farm facilities or invade the farm and eat valuable fish or plants. Florida aquafarmers have reported otters, alligators, and several species of turtles, snakes and birds as being damaging animals. Help is available from the United States Department of Agriculture's Wildlife Services. John Dunlap and Larry Brashears are stationed at the University of Florida's Mitchell Aquaculture Farm and Tropical Aquaculture Laboratory, respectively. John and Larry offer a wide variety of effective, flexible methods that are biologically, environmentally, and socially sound. They can also call upon expertise provided by the USDA's National Wildlife Research Center to resolve problems caused by the interaction of wild animals and the aquafarming community. Please contact John at 850-674-9513 or Larry at 813-671-5230 extension 105 for assistance.

## Veterinarians Focus on Aquatic Animal Health

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Dr. Lee Coffman, Florida State Veterinarian, hosted the annual meeting of the Southern Animal Health Association. The Association is composed of state and federal veterinarians from all the 13 southern states and Puerto Rico. Dr. Coffman emphasized the unique nature of aquatic animal health issues by including a specific session organized by the Division of Aquaculture. Four speakers described current challenges and resources available for their particular industry segment. Species covered were alligators by Dr. Paul Cardeilhac, molluscs by Dr. John Scarpa, shrimp by Helen Dixon and tropical fish by Dr. Roy Yanong. In addition to this special session, Dr. Ruth Francis-Floyd gave a keynote address describing the differences between traditional veterinarian practices and policies versus those unique practices and policy approaches necessary to adequately service or represent aquatic species. A tour stop at Exotic Fish, Inc., a tropical fish farm, was organized and jointly hosted by Dr. Roy Yanong and the Division of Aquaculture. Cypress Creek Farms, Inc., donated alligator ribs for the dinner event.

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### *Division of Aquaculture*

The Division of Aquaculture is the newest division within the Florida Department of Agriculture and Consumer Services and was created by the Florida Legislature in 1999. Primary responsibilities include managing 1.4 million acres of coastal waters for the harvest or culture of wholesome shellfish, implementing the National Shellfish Sanitation Program through periodic inspection of shellfish processing plants and product, issuing submerged sovereign land leases for the culture of shellfish or live rock, certifying all legitimate aquaculturists through an annual registration, and implementing a program of Aquaculture Best Management Practices to meet the State of Florida's environmental goals.

The aquaculture and shellfish industry can acquire information through a variety of means. The Division can be contacted by telephone, 850-488-4033 and 488-5471, or fax 850-410-0893. Tallahassee and the eight state office hours are open five days a week from 8:00 AM to 5:00 PM. State offices are located in Apalachicola, Bartow, Cedar Key, Gainesville, Murdock, Palm Bay, Panama City and Titusville. Internet users can visit the Division's web site at <http://www.FloridaAquaculture.com> for industry and program information.

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