

CHARLES H. BRONSON  
Commissioner of Agriculture

Florida Department of  
Agriculture and  
Consumer Services

# Florida Aquaculture

January 2004, Issue No. 29

Division of Aquaculture

## Highlights:

- Farmers encouraged to participate in 2003 Florida Aquaculture Survey
- Florida Senate reviews Water Management District CUP provisions for aquaculture
- Comments sought on transgenic aquatic animals risk analysis process
- Petition ready to seek delisting of captive-bred Shortnose sturgeon

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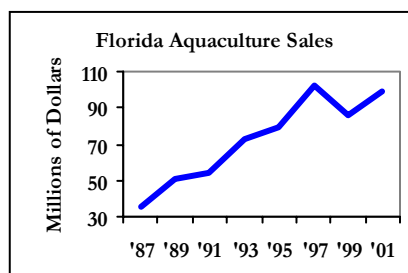
## FASS Kicks off Biennial Aquaculture Survey

The Florida Aquaculture Statistics Service (FASS), a cooperative effort between USDA and the Department, will begin an industry survey in late February. Farmers should immediately respond to this survey and work cooperatively with FASS to provide accurate and complete farm, sales and employment statistics.

FASS has completed aquaculture surveys every other production year since 1987 and documented steady industry growth that has become crucial to the economies of rural coastal and inland communities throughout Florida.

Farm gate value almost tripled from \$35 million sold by 342 farms during 1987 to \$99 million

sold by 531 farms during 2001. As a direct result of this documented growth, the Florida Legislature has repeatedly amended the Florida Aquaculture Policy Act to consolidate regulatory



activities into one agency, recognizing that aquaculture is an agricultural endeavor, and invested public funds in applied research, industry development, several job retraining programs, and public

education at the high school and university levels. Through these critical public policy changes and public investments the makeup of the industry has evolved and grown to benefit small businesses throughout Florida. As an examples of these impacts, hard clam farming (practiced by farmers living in rural, coastal communities) contributes \$55 million annually in total economic activity and Hillsborough County has invested considerable public funds in support of tropical fish production that is a vital economic engine for its rural population.

For additional information about the 2003 survey, contact Jeff Geuder at 407-648-6013 or [nass-fl@nass.usda.gov](mailto:nass-fl@nass.usda.gov).

## Senate Ag Committee Questions Use of CUPs

In order to simplify the permitting process for aquaculture, the Legislature found in 1999 that, except for well drilling and consumptive use permits (both must be obtained from Water Management Districts), permitting should be consolidated within the Department of Agriculture and Consumer Services. Pursuant to Chapter 597, F.S., Best Management Practices (BMPs) were adopted to ensure that aquafarms are in compliance with state groundwater quality standards.

Upon reviewing recently issued and renewed consumptive use

permits (CUPs), Senate Agriculture Committee staff found that several contained conditions usually found in environmental resource permits. The addition of these conditions in CUPs indicates that the Water Management Districts, which are charged with regulating water quantity withdrawal, are also attempting to regulate water quality within aquaculture facilities. These CUP conditions constitute a duplication of regulatory authority that the Legislature intended to eliminate. The Senate Agriculture Committee directed the Division of Aquaculture to meet with the

Water Management Districts on the level of detail required by the BMPs. The Districts are also reviewing the BMPs in comparison with their own rules. Initial agency meetings have been productive to facilitate the concerns of the Districts while promoting legislative intent. The Division is planning follow-up meetings with the Water Management Districts in February.

For additional information, contact Sherman Wilhelm at 850-488-4033 or [wilhels@doacs.state.fl.us](mailto:wilhels@doacs.state.fl.us).

## Petition to Delist Shortnose Sturgeon Ready

A petition to allow captively held Shortnose sturgeon to be grown and sold in Florida has been prepared as a project funded by the Sturgeon Production Working Group. Shortnose sturgeon were listed as an endangered species in 1967 and their recovery is the responsibility of the U.S. Department of Commerce.

Commercial interest in the Shortnose has been triggered because of its relatively rapid sexual maturity and the size and quality of the caviar.

The petition consists of scientific and commercial information indicating that a 'threatened by similarity of appearance' listing may be warranted for captive-bred populations of Shortnose sturgeon because they are neither endangered or threatened, yet they are similar in appearance to wild endangered populations.

The petition also includes an analysis of the regulatory history of the American alligator as an analogous example for the

successful recovery of an endangered species as well as commercial production.

The petition argues for the adoption of a 'special rule' for captive-bred sturgeon that is consistent with the legislative intent of the Endangered Species Act that will help create a legal, regulated and responsible supply of native sturgeon products.

Contact Mark Berrigan, 850-488-4033, for additional information

*Culture of transgenic aquatic species may yield positive economic and environmental benefits, but there may be associated environment, agriculture or human health risks.*

## Comment on Transgenic Aquatic Species Review Requested

Recent advances in biotechnology have prompted environmental impact concerns from a wide range of interests. To help address these questions and ensure that the best of state government's scientists are being provided with the latest knowledge on this topic the Division of Aquaculture has formed a Transgenic Aquatic Species Task Force.

Transgenic species engineered for commercial aquaculture have been developed to improve yields or product value or to reduce production costs through increased disease resistant, growth rate, food conversion, thermal tolerance, human nutritional value, esthetic value or pharmaceutical production. These desirable traits have positive economic and environmental benefits, but there may be associated environment, agriculture or human health risks.

The Task Force is composed of scientists from each of the following agencies: Department of Agriculture and Consumer Services; Fish and Wildlife Conservation Commission; Department of Environmental Protection; Department of Health; and

University of Florida, Institute of Food and Agricultural Sciences.

To assess whether a transgenic aquatic organism poses an environmental, agricultural or human health threat, the Division has proposed a science-based risk analysis. Initially, the Division will gather pertinent biological, genetic, environmental, agricultural and human health information from appropriate publications and other sources. Including information from the entity requesting permission to raise the transgenic species. After all information has been gathered, staff will transmit that information to the Task Force.

The Task Force will review the information and develop recommendations. The Division will, after reviewing all of the information and recommendations, determine whether culture and sale will be approved or a full risk assessment required.

If the Division determines that a full risk assessment is required, the Task Force will be asked to recommend scientists to participate in a transparent

process that will include the applicant. From the suggestions, the Division will invite a scientific panel of no more than seven, nor fewer than five scientists, to employ a risk assessment/management process.

Upon receipt of the scientific panel's recommendations, the Division will determine how to proceed with the applicant's request. If the Division determines that culture, with or without special conditions, is permissible, it will insure that the farmer(s) implement any new conditions through the activities of the Division's field inspector(s). If it is apparent the special conditions warrant adoption of new Best Management Practices, the Division will initiate the appropriate administrative action.

The Division believes that to adequately address the risks associated with transgenic aquatic species an open and transparent process must be used. To this end, the Division invites readers to comment on this proposed process.

Please send your comments to Sherman Wilhelm at the Division's address or by e-mail to [wilhels@doacs.state.fl.us](mailto:wilhels@doacs.state.fl.us).

## First Commercially Produced Transgenic Animal Cultured in Florida

Yorktown Technologies, an Austin Texas-based company, contracted with two Florida aquaculture facilities to produce a transgenic ornamental fish marketed as the

Glofish™. The fish is a zebra danio modified by the addition of a sea anemone gene. This gene construct triggers the production of a skeletal muscular protein that reflects light as a red glow.



Yorktown licensed the patented fish from the University of Singapore.

They completed two years of consultation and testing to determine environmental risks before proceeding with nationwide marketing (except California) that began in mid-December.

The Division has asked the newly formed Transgenic Aquatic Species Task Force to

review this information, a recent report on biotechnology produced by the National Research Council, a series of working papers produced the Food and Agriculture Organization and World Health Organization, and the comments provided by the California Department of Fish and Game.

For copies or web-links to these materials, contact Paul Zajicek at zajicep@doacs.state.fl.us or 850-488-4033.

## EPA Releases Aquaculture Effluent Notice of Data Availability

The Environmental Protection Agency (EPA) moved a step closer to proposing new national effluent limitation guidelines for aquaculture under the Clean Water Act. On December 29th, the agency released a Notice of Data Availability (NODA) that summarized the information used to justify the proposed rule. Public comment on the NODA will be accepted until February 12, 2004.

Florida has approximately 950 aquaculture facilities that utilize ponds, tanks, sovereign submerged lands, or tank systems that recirculate and recirculate production water to produce a wide variety of fish, plants, molluscs, crustaceans or reptiles. Of the types of production systems used in Florida, EPA is proposing additional requirements for recirculating or flow-through systems that currently have a National Pollution Discharge Elimination

System permit. EPA has proposed numeric limits for Total Suspended Solids (TSS) plus various mixes of Best Management Practices or settling methods to limit TSS discharge.

Facilities potentially impacted by EPA rule changes should visit <http://www.epa.gov/waterscience/guide/aquaculture/> or contact Kal Knickerbocker, 850-488-4033, for a copy of the NODA.

***EPA plans to release new aquaculture effluent guidelines by June 2004.***

## Offshore Net Pen Permit Request Denied

The National Marine Fisheries Service (NMFS) denied on December 17, 2003 a key permit to allow Florida Offshore Aquaculture, Inc. to place four to eight cages 33 miles off of Madeira Beach for a 24-month feasibility study. The company's permit request to place commercial sea cages in the Gulf was the first by a Florida-based company.

Notice of the permit application generated comments from 340 individuals that opposed the

permit. The Gulf of Mexico Fishery Management Council strongly recommended that the permit be denied. The Florida Department of Environmental Protection expressed concerns about an Environmental Assessment developed by NMFS. The Florida Department of Agriculture and Consumer Services supported the application.

NMFS concurred with Council and other concerned parties that the permit should be denied and

that an Environmental Impact Statement was warranted.

The Gulf of Mexico Fishery Management Council has initiated the development of a generic amendment to their federal fishery management plans for commercial aquaculture and an Environmental Impact Statement. This process is expected to be completed in two years.

For additional information, contact Paul Zajicek at 850-488-4033 or zajicep@doacs.state.fl.us.

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We're on the Web!  
[www.FloridaAquaculture.com](http://www.FloridaAquaculture.com)



Channel catfish egg mass and hatchery trough. Motorized paddles replicate water currents produced by male catfish.

The Division of Aquaculture's responsibilities include certifying all legitimate aquaculturists through an annual registration, implementing on-farm Aquaculture Best Management Practices to meet the State of Florida's environmental goals, 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, and managing submerged sovereign land leases for aquacultural purposes.



Additional information about Florida aquaculture or Division programs can be obtained from the following offices.

Apalachicola Shellfish Center:	850-653-8317
Bartow Field Office:	863-519-8459
Cedar Key Field Lab:	352-543-5181
Murdock Field Lab:	941-255-7405
Palm Bay Field Lab:	321-984-4890
Panama City Field Lab:	850-747-5252
Tallahassee Office:	850-488-4033 or 488-5471

*Benefiting Commercial Aquaculture,  
Protecting Natural Resources*

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