CHARLES H. BRONSON
Commissioner of Agriculture

Florida Department of Agriculture and Consumer Services
http://web.doacs.state.fl.us

Florida Aquaculture

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October 2004, Issue No. 36 **Division of Aquaculture**

Highlights:

- Jeanne pummels Frances survivors, slowing recovery from four major hurricanes in six weeks.
- West Florida catfish farmers loose barns and stored feed to Ivan's wind and rain.
- Habitattitude spreads responsible pet ownership message.
- Hatchery raised snook recapture proves the value of Mote Marine restocking efforts.

Inside this issue:

Hurricane Jeanne Inflicts New Damage

In a terrible twist of fate, Hurricane Jeanne brought renewed destruction to aquaculturists across Florida that have yet to recover from Hurricane Frances. Packing stronger winds and more rain, Jeanne came ashore near Vero Beach and moved quickly across the state following the swath of destruction laid down by Frances. Jeanne flooded fish ponds from coast-to-coast as well as ripping roofs off and demolishing barns and buildings that had survived Frances.

After touring most areas of Florida battered by the storms and working with industry leaders, as well as USDA assessment teams, Commissioner of Agriculture Charles H. Bronson estimates that as of September 24th, prior to Jeanne, Florida agriculture sustained at least $2.1 billion in damages, including lost crops and structural damage to industry facilities.

The damage has touched virtually all areas of Florida agriculture, including about $600 million to the nursery industry, $400 million to citrus, $150 million to timber, $100 million to livestock, $50 million to vegetables and $40 million to sugar.

"The damage that we have sustained is unprecedented - and the response from Washington is historic," Bronson said. "Disaster relief funds will enable our growers to get back on their feet, re-plant their crops and get back to the business of feeding Americans and consumers around the world. Agriculture is the second largest industry in our state with an economic impact of $62 billion a year, and without the industry up and running, our state's economy would suffer significantly."

Hurricane Jeanne image courtesy NOAA

Precautionary Closures Benefiting Shellfish Industry

The 2004 hurricanes have had a measurable impact on access to shellfish harvesting areas (SHA). Each hurricane resulted in an area-specific precautionary emergency closures. The closures are designed to protect the public health until assessments made by Division staff provide necessary information to lift the closures. The benefit of a precautionary emergency closure is that if a hurricane doesn't pass close enough to a SHA, doesn't affect the waste water treatment plants and doesn't trigger rainfall or river stage closure criteria, the closure can be quickly lifted. Florida has worked over the years to win U.S. Food and Drug Administration approval of the precautionary closure concept.

Thus far, Hurricane Frances affected the largest number of shellfish harvesting areas, resulting in 22 SHA closures that persisted an average of 11.8 days. A SHA precautionary emergency closure can be quite short (36 hours) so averages may be deceptive. Hurricane Charley was a close second, with 18 SHAs affected, each closed an average of 8.2 days. The most powerful hurricane, Ivan, impacted 11 SHAs which were closed an average of 7 days. Hurricane Jeanne's trek across Florida resulted in 14 SHAs being closed. Two of those SHAs have already been reopened due to the precautionary conditions not being realized.

Hurricane Ivan Damages West Florida Catfish Farms

Escambia County catfish farmers report little to no loss of fish, but bulk feed bin roof losses resulted in water damage to expensive feed.

Hurricane Ivan, packing 130 MPH plus winds and torrential rains, came ashore near Mobile Alabama causing widespread and severe damage to Pensacola and West Florida. Thirty-seven catfish farmers with 700 acres of pond production experienced electrical power outages, flooded roads, and structural damage to barns and bulk catfish feed bins.

In anticipation of the storm, farmers lowered pond water levels about 1.5 feet. As a result ponds were not flooded nor berms breached. Farmers reported no loss of fish, but have discarded water damaged feed as a result of the tops of feed bins being blown off by the storm. The additional and expected costs of replacing lost feed will impact production costs.

The West Florida Regional Fish Growers Association, Inc. were very appreciative of the generosity of Mississippi catfish farmers that organized and paid the costs of delivering diesel powered generators to offset the electrical power lost to pond aerators. Under normal circumstances the hot weather of late summer severely stresses catfish. Sufficient aeration is critical in reducing heat related stress. Farmers also reported that the cool, dry weather that followed the storm was beneficial to fish and working conditions associated with clean-up.

Farms in West Florida are multi-crop oriented. Cotton and soybean crops are a total loss and farmers are assessing whether the peanut crop will recover.

Hurricane Ivan image from NOAA.

Unique Industry/Agency Partnership Rolls Out *Habitattitude™*

The Pet Industry Joint Advisory Council (PIJAC), National Sea Grant, and U.S. Fish and Wildlife Service kicked off a unique pet, backyard pond owner and water gardener education campaign to prevent the release of unwanted pet fish and aquatic plants.

Habitattitude™
PROTECT OUR ENVIRONMENT
DO NOT RELEASE FISH AND AQUATIC PLANTS

Habitattitude™ focuses on consumer awareness and responsible behaviors. In partnership with pet and nursery producers, distributors and chain and independent pet and nursery retailers, pet owners and gardeners will be exposed to a wide variety of point-of-purchase messages that discuss potential environmental ramifications of the pet, aquarium and water garden hobbies while promoting responsible ownership behaviors.

The campaign provides a range of disposal alternatives for unwanted pets and encourages the public to become an active partner in encouraging responsible pet ownership and water gardening maintenance.

Funding for the campaign has been provided by the National Sea Grant Program and U.S. Fish and Wildlife Service.

The campaign is actively seeking partners to use and distribute point-of-sale materials and adopt the *Habitattitude™* logo to build campaign awareness. For additional information visit http://www.habitattitude.net/.

Mote Marine Lab Snook Recaptured

A seven inch snook, *Centropomus undecimalus,* raised by Mote Marine Laboratory's Center for Aquaculture Research and Development and released by Mote's Center for Fisheries Enhancement in 1999 was caught last month as a 34-inch adult. That is the largest hatchery-raised snook ever recaptured. The fish was released in lower Bowlees Creek in Sarasota Bay as part of an experiment to assess the effect of release habitat on recapture rate.

Nathan Brennan, Mote senior biologist, holds a hatchery raised snook

The snook, caught during regular monitoring of Bowlees Creek , was an exciting find for the program because it was an adult female that had spawned.

"This shows that small-scale releases can contribute to the fishery," said Dr. Kenneth Leber, director of Mote's Center for Fisheries Enhancement. "These are the most exciting impacts we've seen in Florida so far. We have only released 50,000 fish over the life of the program. This kind of results have never been documented anywhere else in the world."

Surprisingly, the fish was caught at its release site and recognized by locating a one millimeter long stainless steel wire using a very sensitive and expensive metal detector. The wire, commonly called a "coded wire" tag, was encrypted with Mote's information, then injected into the cheek muscle prior to release.

Mote is conducting an ongoing restocking study in partnership with the Florida Fish and Wildlife Conservation Commission. For more information, visit http://www.mote.org/~kleber/enhancmt.htm.

Phenomenal Results:

A Mote Marine Lab hatchery raised snook was recaptured as a 34-inch adult in the same creek where it was released as a 7-inch juvenile six years ago.

Gulf Council Proposes Offshore Aquaculture Amendment

The Gulf of Mexico Fishery Management Council (Council) is one of eight regional Fishery Management Councils established by the Fishery Conservation and Management Act in 1976. The Council prepares fishery plans which are designed to manage fishery resources from where state waters end (Florida state waters end nine miles out in the Gulf) to the 200-mile limit.

Currently, the Council has defined marine aquaculture in federal waters to be a "fishing" activity based upon a legal opinion rendered by NOAA in 1994.

After the Council recently denied a net pen application by a Florida-based company, the Council initiated an effort to create an amendment to fishery management plans that would exempt farm-raised fish from fishery management plan provisions through a permit granted by the National Marine Fisheries Service. The process to create this amendment will emulate the lengthy, complex process associated with fishery management plan development and adoption.

The Council released a scoping document to solicit public comment and convened an ad-hoc aquaculture advisory panel to revise and update its contents. The next steps in the process include the drafting of a supplemental environmental impact statement, further Council review and comment, solicitation of public comments, review by the National Marine Fisheries Service ,and eventual adoption as amendment within the next three years.

For additional information, visit http://www.gulfcouncil.org.

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We're on the Web!
www.FloridaAquaculture.com

Mote Marine Lab staff preparing to release young snook into Sarasota Bay tributaries.

The Division of Aquaculture's responsibilities include certifying commercial 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 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:	**850-236-2200**
Tallahassee Office:	**850-488-4033**
	or 488-5471

Benefiting Commercial Aquaculture,
Conserving Natural Resources

Special Note: Several weather and water quality monitoring stations operated by the Division near aquaculture lease areas are not functioning because of hurricane damage.

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