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**Research and Extension Programs** 

Economic/Community Development

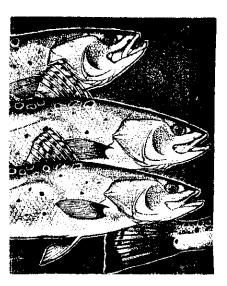
Environment/Natural Resources Families/Nutrition/Health 4-H Youth Programs

Agriculture

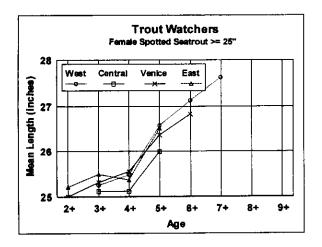
Lagniappe Sea Grant April 1, 2004 Volume 28, No. 4

## **TROUT WATCHERS REPORT**

A little over a year ago, the LSU AgCenter's Sea Grant Program and the Louisiana Department of Wildlife and Fisheries (LDWF) began recruiting recreational speckled trout fishermen to catch speckled trout over 25 inches long. While much is known about the biology of the species, age and growth data on larger fish is somewhat sketchy. In the entire LDWF database, information on only 128 specks over 25 inches long existed. Learning more about the make-up of the population of big fish was the goal of the Louisiana Trout Watchers Program.



A total of 48 fishermen were trained to remove otoliths (ear bones), measure length and determine sex for trout. These fishermen produced 159 pairs of otoliths, of which 123 pairs were usable, almost doubling the data on big fish in the LDWF database.



At first, the state was divided into 3 zones, West, Central, and East for the sake of data analysis. After the otoliths began coming in, it became evident the fish from the mouth of the Mississippi River were at least a different subgroup, so "Venice" was added as a fourth zone. The graph on the left shows length at age for speckled trout by zone. The two largest fish caught were both 28¼ inches long. One was 4.8 years old and the other was 6.9 years old. Both

were caught in Lake Calcasieu and both were females.

A State Partner in the Cooperative Extension System

The LSU Agricultural Center is a statewide campus of the LSU System and provides equal opportunities in programs and employment. Louisiana State University and A. & M. College, Louisiana parish governing bodies, Southern University, and United States Department of Agriculture cooperating.

Of the 159-fish total, 67 came from the Venice Zone, 52 from the West Zone 34, from the East Zone, and only 6 from the Central Zone. The oldest fish aged was 9.9 years old, a male from Lake Calcasieu. Seven trout were 7 or more years old. Five of these were from the West Zone and 2 were from the East.

Five of the aged fish were under 3 years old — 2.7 to 2.9 years old. Four were from the East Zone (Lake Pontchartrain) and one was from Venice. Of the fish aged, another 27 were over 3.0, but under 4.0 years old. Fourteen of these were from Venice, 5 were from the East Zone, 3 from the Central Zone and 5 were from the West Zone.

Randy Pausina of LDWF, a member of the **Trout Watchers Technical Team**, has announced that the LSU Coastal Fisheries Institute has agreed to do microchemistry analysis of **Trout Watcher** otoliths. It is hoped that by sampling each ring in an otolith, it will be possible to determine WHICH estuary the fish was in, in any particular year. This will reveal whether the fish caught in a particular area spend all their lives there, or whether and how much they move from one lake or bay to another lake or bay. This is very important information for management.

In light of the new micro-chemistry analysis possibilities, LDWF and LSU Sea Grant/AgCenter have decided to extend the **Trout Watchers Program** one more year. Many of the current **Trout Watchers** have re-enlisted for the second year, however the **Trout Watchers Program** is now accepting new applications. WE ARE ESPECIALLY INTERESTED IN FISHERMEN THAT FISH IN WATERS BETWEEN THE MISSISSIPPI AND ATCHAFALAYA RIVERS. Only 6 fish came from this area last year and none of these were from Terrebonne Parish.

Fishermen interested in joining **The Trout Watchers Program** are asked to selfqualify themselves by asking "Do I really catch at least one fish 25 inches long or longer per year." Fishermen accepted for the program will receive training, a sampling kit, and a cap identifying them as a **Louisiana Trout Watcher**. Qualified fishermen who are interested in becoming a **Trout Watcher** may call Jerald Horst at 504/838-1170 or email him at <u>ihorst@agctr.lsu.edu</u> to register.

#### **GULF COAST SEAFOOD PAVILION**

A Gulf Coast think tank is creating the first ever seafood trade event showcasing domestic products. They are pulling out all the stops to produce a first-rate outlet for seafood dealers from Texas to Florida. According to Louisiana Seafood Promotion and Marketing Board Executive Director Ewell Smith, "The vision is to provide a fresh new alternative for the country's seafood buyers".

Each year buyers gather by the thousands at the Louisiana Foodservice Expo, this region's largest and most comprehensive food trade event. In August 2004, the Louisiana Seafood Promotion and Marketing Board will join the Louisiana Restaurant Association to launch the **Gulf Coast Seafood Pavilion** an enclave of 48 southern seafood dealers. Louisiana Restaurant Association CEO Jim Funk said, "I believe the Pavilion has the potential to grow into a major seafood event, to be held annually in conjunction with the Louisiana Foodservice Expo."

Space is limited. Interested seafood dealers may reserve a booth by calling Sandy Riddle, LRA Vice President of conventions and exhibitions, at 504-454-2277, or visit www.GulfCoastSeafoodExpo.com

#### SHRIMP PROCESSING INDUSTRY ANALYSIS

It's no secret that shrimp imports have flooded into the United States since 1980, with most of the growth in supply coming from farmed shrimp. In some years, the annual increase in world production of shrimp is as large as the annual U.S. production of warm-water shrimp. At least 60% of the world's production moves into the export-import trade and the two largest markets are the U.S. and Japan, although the countries of Europe are also major importers.



Along with this dramatic increase in supply, has come a decline in prices. From 1980 to 2001, the <u>value</u> of the world shrimp trade has increased by 70%, but the <u>volume</u> in weight has increased by 240%. After the effects of inflation are removed, the average per pound price of shrimp imports has declined from \$5.82 in 1980 to \$2.87 in 2001. And these figures don't include the record import years of 2002 and 2003.

The effects of this huge price decline on commercial shrimp harvesters is obvious, however shrimp processors are also affected. Recently, fisheries economists with Louisiana State University and the National Marine Fisheries Service conducted an analysis of the effects of imports on Southeastern U.S. shrimp processors during the 1980-2001 period. Shrimp is the largest part of the Southeast seafood processing industry, accounting for more than 80% of the value of all edible seafood processing.

The economists found that the amount of shrimp processed in the Southeast remained fairly stable between 1980 and 2001. In spite of this, the number of shrimp-processing companies declined from 173 to 89 during that period. They stated that the decline in the number of shrimp processing companies is "almost certainly tied, at least in part" to increasing shrimp imports and the fact that a larger percentage of the imports are already coming into the country already processed.

From 1980 to 1986, the amount of imported shrimp used by processors went from 50 million pounds to 100 million pounds, or about one-third of the total shrimp that they used. Then, during 1992-1994, imported shrimp made up almost 50% of the amount processed. Since that peak period, import use has fallen to about 40% of the shrimp processed, in spite of steadily upward levels of imports into the U.S. The total deflated dollar value of the shrimp processed from 1999-2001 averaged only 70% of the total value for 1983-1985. While the value dropped 30%, the volume of shrimp processed increased by more than 20%. The economists stated that the sharp drop in prices from 1980 to 2001 shows no sign of slowing.

Profits per pound of shrimp for shrimp processors have fallen steadily. The difference between the prices they have to pay for shrimp to process and what they receive for their sale has steadily become narrower during the 1980-2001 period. Most of the decline occurred in the early 1990s. This factor may partly account for the large loss in numbers of shrimp processors since the early 1990s.

The decline in profits, the economists found, is due at least as much to a larger percentage of the imports coming in already processed, as to the increase in total volume of imports. They described the increase in peeled shrimp imports since the 1990s as "explosive". Raw and cooked peeled shrimp made up 36% of imports in 1980, but had grown to almost 50% by 2001. What makes this remarkable is that total shrimp imports increased from 258 million pounds (headless shell-on) in 1980 to 1,180 million pounds in 2001. The reason for the change is that the major shrimp-producing countries, which are mostly poorer countries, are trying to increase the value of their exports by processing the shrimp before export them.

During the 1980-2001 period, production of peeled shrimp by Southeastern shrimp processors grew, with record production during 1999-2001. The economists found that the increases in production were caused by declines in profit per pound of shrimp processed. The declines in profit are linked to the increases in volume of shrimp imports that are arriving already processed. To maintain the profitability of their companies, Southeastern processors had to increase the number of pounds that they processed. In turn, the number of companies processing shrimp in the Southeast has declined.

Based on their analysis, the economists reached three conclusions, all based on current world shrimp production, processing and exporting trends continuing:

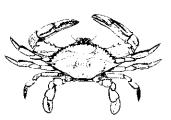
- 1) The prices for processed shrimp will continue to drop and the difference between what processors pay for shrimp and what they sell them for will continue to grow narrower.
- 2) The number of companies that process shrimp in the Southeastern U.S. will continue to decline.
- 3) The average number of pounds of shrimp processed per Southeastern U.S. processor will continue to increase.
- Source: An Economic Analysis of the Southeastern U.S. Shrimp Processing Industry Responses to an Increasing Import Base. Walter R. Keithly, Jr., Hamady Diop, Richard F. Kazmierczac, Jr., and Mike D. Travis. Proceedings of the 56<sup>th</sup> Annual Gulf and Caribbean Fisheries Institute. 2003

### CAN BIOLOGISTS AND FISHERMEN UNDERSTAND EACH OTHER?

Commercial fishing is one of the oldest occupations in the United States. Long before there were any biologists, commercial fishermen worked in rhythm with the tides and the seasons to make a living from the water. However, human populations grew and began to impact fisheries habitat. The number of fishermen also grew, and even more importantly, they began to use better and more efficient equipment.

Principals of scientific fisheries management began to take hold in the second half of the twentieth century, and increasing numbers of fisheries biologists and managers found themselves at odds with commercial fishermen. As more fisheries were declared to be overfished, deep divisions formed between the two groups and mistrust developed.

An area where this has become critical is in the blue crab fishery in the Chesapeake Bay. Biologists/managers there have urged strong reductions in the amount of crabbing in the bay, but many crabbers question if there is really a crisis at all. A different kind of scientist, an anthropologist, not a biologist, became interested in this conflict. Michael Paolisso from the University of Maryland College Park wanted to understand how watermen (as Chesapeake Bay



commercial fishermen are always called) think, and better understand just who they are.

Paolisso spent weeks with the watermen of Deal Island on Maryland's Eastern Shore, asking questions and listening. Not surprising, he found both watermen and fisheries biologists/managers to be acting in good faith. Both groups were knowledgeable, the biologists collecting and analyzing large amounts of data and the waterman spending years on the water observing crabs up close. Yet the conclusions reached by each group was different, focusing on different information.

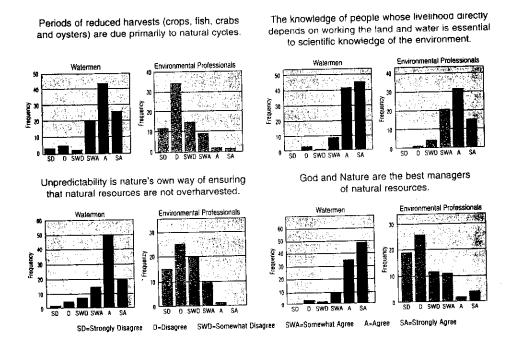
The Chesapeake Bay Commission's Bi-state Blue Crab Advisory Committee was working in high gear to determine the health of blue crab stocks and recommend new harvest levels for watermen. However, the watermen seemed to just "blow off" the biologists/managers' carefully collected data, and in some cases accuse them of lack of competence or even lying. Paolisso's challenge was to find out what was driving this distrust.

A survey by Paolisso revealed just how different the basic beliefs and thought patterns were between watermen and biologists. The majority of watermen "agreed" or "strongly agreed" with the following statements:

- We should just let the bay's natural cycles follow their own rhythm.
- Scientists should focus their research energies on pollution in the bay.

- "Effective management" should not be based only on science.
- "Nature's unpredictability" provides the greatest assurance that natural resources like crabs will not be over harvested.
- God and Nature are the best "managers" of natural resources.

By contrast, biologists and environmental professionals often "disagreed" or "strongly disagreed" with these statements. Paolisso began to see that the key beliefs of watermen about the natural world were different than those of biologists.



One crab biologist said that most people don't understand how scientists work. Scientists receive academic training in the research process, believing that with honest and open inquiry, the truth will come out. The watermen's views are based on personal knowledge, religious faith and experience. One waterman, David Horseman, who has worked with Paolisso, put it best when he said, "It's where scientists come from. They're drilled on black and white evidence. Faith is a bad word for them. We rely on faith. This is God's Nature. They (the scientists) come from a different world. But I see a lot of common ground." The common ground that Horseman referred to is that both groups have central goals in common, the health of the resource. Each group is "dedicated" in its own way.

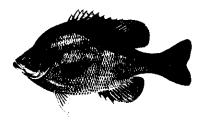
Paolisso says that building communications bridges is critical. For Paolisso, discussions between stakeholders have to continue, no matter how they are done. "We have to keep these conversations going," he says. "We have to get the different parties to see beyond their varying positions to their common interests."

# Source: A Life Among Watermen. Jack Greer. Chesapeake Quarterly. Maryland Sea Grant College. Volume 2, Number 3. October 2003.

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### SUPER BLUEGILL?

Bluegill, often called "bream" or "perch" in Louisiana, are second only to black bass in popularity amongst freshwater anglers in the U.S. A subspecies of the common bluegill, the coppernose bluegill, has been promoted for years by fish hatchery operators as fastergrowing than other bluegills. It is native to the Florida Peninsula and coastal streams from Florida to the Carolinas.



Fisheries biologists with the Texas Parks and Wildlife Department designed and conducted a study to compare the coppernose and their native bluegills for survival, growth rate and catchability. They stocked native east and west Texas bluegill and coppernose bluegill in small ponds. Some were stocked with bluegill only and others were stocked with largemouth bass, green sunfish, redear sunfish, and threadfin shad to imitate a more natural fish population. All three types of bluegill were stocked in each pond, but they were tagged with tiny wire tags to allow identification.

At the end of the first year, the ponds were drained and all of the bluegill were identified, counted, measured, and returned to the ponds alive. Only the young bluegills spawned that year were not returned. The second year, the ponds were again drained and the bluegill were again identified, counted and measured. After that, 100 bluegill of each type from the ponds with no other fish present, were stocked in a larger pond to continue to watch their growth for two more years.

They found that in all the ponds, coppernose bluegill grew larger. They were 27% larger by weight the first year and about 34% larger by the end of the second year. Also, all three types averaged larger in the ponds with other fish species than in the bluegill-only ponds, probably because bass predation "thinned them out", reducing competition for food, and/or because the bass ate the smaller ones, bringing the average size up. All three types averaged above the 6-inch keeper size by the end of the second year. Coppernose bluegill maintained their size lead through years three and four, reaching 8.6 inches in average length, compared to 7.6 inches for east Texas bluegill and 7.4 inches for west Texas bluegill.

During their first year, coppernose bluegill showed a higher survival rate in the ponds with other fish present. The survival rate was 69% for coppernose bluegill, compared to 45% for east Texas and 37% for west Texas bluegills. This may have been due to their faster growth rate making them larger and less susceptible to the bass, or they may have just been better able to avoid predators.

The bluegills were also tested for catchability. In the summer and fall, each pond was fished for two hours per day. Artificial baits were used to prevent deep hooking, which could injure or kill the fish. The same baits were used in each pond. In the ponds with other fish present, catch rates were about equal in both years. In the bluegill-only

ponds, the coppernose bluegill were slightly easier to catch their first year (maybe because of their larger size), but much harder to catch than the other two types the second year. Coppernose bluegill catch was half that of east Texas bluegill and one-third that of west Texas bluegill.

The biologists concluded that coppernose bluegill do show some advantage, mostly from their first year of life. They could produce a better fishery if stocked in closed ponds with no native bluegill present. However, stocking them on top of a native bluegill population would not be effective, as their numbers would be small compared to the native fish and their effect would be lost.

Source: *Performance Comparison Between Coppernose and Native Texas Bluegill Populations.* John A. Prentice and J. Warren Schlechte. Proceedings of the Fifty-fourth Annual Conference, Southeastern Association of Fish and Wildlife Agencies. 2000.

#### WILDLIFE FEDERATION RESOLUTIONS

Each year, at it annual convention, the Louisiana Wildlife Federation considers resolutions on fish, wildlife and habitat issues. The federation is a statewide conservation, education and advocacy organization that represents a broad constituency of conservationists, including fishermen and hunters. This year, the federation passed several resolutions of interest to fishermen.

- Resolution 5B, supports the Louisiana Derelict Crab Trap Removal Program and encourages its members and the public to actively participate in it.
- Resolution 6B, urges the Legislature to establish a study committee of commercial and recreational interests to develop and recommend to the Legislature guidelines for crab trap placement in navigable waters.
- Resolution 7B, urges the Governor and the Legislature to provide enough funding for the State Lands Office (SLO) to inventory all waterbottoms for public or private ownership. Also urges the Louisiana Department of Natural Resources to obtain public access and use servitudes from applicants as a condition for issuing Coastal Use Permits.
- Resolution 8B, requests the Governor to direct the SLO to comply with Act 919 of 2001 and to prioritize the inventorying of state lands and waterbottoms, giving the coastal parishes top priority, beginning with Terrebonne, Lafourche, Plaquemines, Jefferson, and St. Bernard.
- Resolution 10B, supports the Louisiana Department of Wildlife and Fisheries (LDWF) in its efforts to study the alligator gar and encourages further study of the species.

- Resolution 11B, requests the U.S. Army Corps of Engineers (Corps) to supply LDWF with herbicides to control aquatic plants in Black/Clear Lake to compensate for Corps projects that prevent the lake from being drawn-down to control the plants.
- Resolution 13C, urges the Governor, the Louisiana Legislature, and the Louisiana Congressional Delegation to support regulations to reduce mercury discharges and emissions into the environment.
- Resolution 15C, urges the Corps to perform an audit to determine if the wetland mitigation policy is reaching the U.S. President's "no net loss of wetlands" policy, and if it is not, the Corps is urged to issue no more Section 404 permits that require offsite mitigation until the program is changed.
- Resolution 16C, urges the testing of alligator snapping (loggerhead) turtle meat for mercury.
- Resolution 18D, supports the establishment of a Coastal Forest Reserve Program.
- Resolution 20D, urges a review of the state's surface water needs as part of a statewide water management plan and urges that future creation of reservoirs be consistent with the plan.
- Resolution 21D, urges the Louisiana Wildlife and Fisheries Commission (LWFC) to work with aquaculture and other industries to prevent introductions of potentially harmful non-native species into Louisiana. Also opposes any weakening of LWFC authority over non-native species.
- Resolution 22D, urges the Governor and Legislature to undertake measures to change laws to ensure the public's right to access and use coastal waters that are subject to tides.
- Resolution 27E, urges that portions of Whisky Chitto Creek, Barnes Creek, Bearhead Creek, Beckwith Creek, Bundick Creek, and Hickory Creek be added to the Louisiana Natural and Scenic Rivers System.

## **GULF COUNCIL MAKE-UP**

Who gets appointed to the federal regional fisheries management councils has been a topic of debate since the formation of the council system in the mid-1970s. The balance in numbers between recreational and commercial fisheries interests on the Gulf of Mexico Fisheries Management Council was even the focus of a recent lawsuit by a Louisiana resident against the U.S. Department of Commerce/National Oceanic and Atmospheric Administration (NOAA). Federal law requires that representation on fisheries councils be balanced between recreational and commercial interests. In January, NOAA submitted a report to U.S. Congress on the apportionment of membership on the regional fisheries management councils. The section on the Gulf of Mexico Fishery Management Council (GMFMC) lists current representation on the council as being 6 recreational, 4 commercial and 1 "other", but says that this reflects a change from previous membership, which was 7 recreational, 3 commercial and one other. The report notes that 3 members terms will expire on August 10, 2004. Two of these members are classified as recreational, with the last one being the one in the "other" category. This will leave 4 from the recreational sector and 4 from the commercial sector (although one is a aquaculturist).

The report recommends that state governors (who must be the ones to recommend people for members) nominate representatives from all sectors, so that the Secretary of the Department of Commerce is able to reach the required balance on the council. These representatives should have knowledge of all major fisheries. Representatives from the "other" category should also be nominated, especially social scientists and economists.

Source: 2003 Report to Congress on Apportionment of Membership on the Regional Fishery Management Councils. National Oceanic and Atmospheric Administration, National Marine Fisheries Service. January 2004.

## FUR HARVEST REPORT

High nutria populations are considered to be a contributor to Louisiana's most serious environmental problem, coastal land loss. When an area is stripped of vegetation by nutria, it is much more likely to be converted to open water than if the vegetation is left intact.



Before the 2002-2003 fur trapping season, the

Louisiana Department of Wildlife and Fisheries put into effect a Coastwide Nutria Control Program (CNCP). Under the program, Breaux Act funds were used to pay licensed fur trappers \$4 per nutria tail. While it is too early for final results from the 2003-2004 season, the figures for 2002-2003, the first year of the program, are interesting.

The number of fur licenses sold in 2002-2003 was 1,589, almost double the 871 sold in the previous season. Much of this was certainly due to the CNCP program, although much higher than average prices for otter pelts (average \$59.09) may also have contributed to the higher license sales.

The total value of the harvest of fur animals was \$1,581,211, however \$1,232,088 came from incentive payments from CNCP. The market demand for most animal furs is still extremely low, with pelt value of the 2002-2003 harvest being only

\$349,122. This was, however, above the value of pelts in the previous year, which was only \$202,611. Some of the increased pelt sales can also be credited to the CNCP. The number of nutria pelts sold in 2002-2003 was 47,042 compared to 24,683 the previous year. The increase came in spite of a drop in the price received per pelt from \$1.75 to \$1.38.

Of the 1,589 licensed for trappers, 342 participated in CNCP. Less than 200 tails were turned in by 116 participants, 86 participants turned in 200-499 tails, 35 turned in 500-799 tails, and 105 turned in over 800 tails. Approximately 90% of the CNCP harvest came from Southeastern Louisiana, and 34% were taken by trapping, 63% by shooting with a rifle, and 3% were taken with a shotgun. February was the most active month for tail collections (91,917) and December (22,652) was the least active month.

Source: 2002-2003 Annual Report: Fur and Alligator Advisory Council. Greg Linscombe and Tanya Sturman. Louisiana Department of Wildlife and Fisheries. December 2003.

## THE GUMBO POT

#### **Clubhouse Oysters**

Here is one more oyster recipe while oysters are at their peak quality. This recipe produces a rich, brown, piquant sauce. If your oysters do not have enough liquor to make the required amount, simply add water to what liquor you have to get the 1½ pints called for in the recipe. Also, if your oysters are very salty, you may want to reduce the salt called for.

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- 3 tbsp butter
- 4 tbsp flour
- 1½ tsp prepared mustard
- 1/2 tsp paprika
- 1 tsp parsley
- 1 tsp salt

Melt the butter and add the other ingredients in the order given, except for the oysters. Simmer uncovered a few minutes, until the sauce thickens slightly. Add oysters and simmer uncovered, stirring occasionally, until the oysters become firm and the edges of the oysters curl. If the sauce is too watery to put over toast, simmer slightly longer. Serve over toasted bread. Serves 3.

Sincerely Jerald Horst Associate Professor, Fisheries

cups oyster liquor

tbsp Worcestershire sauce

tbsp lemon juice

pint oysters

toasted bread