

# Lagniappe



Research and Extension Programs

Agriculture

Economic/Community Development

Environment/Natural Resources

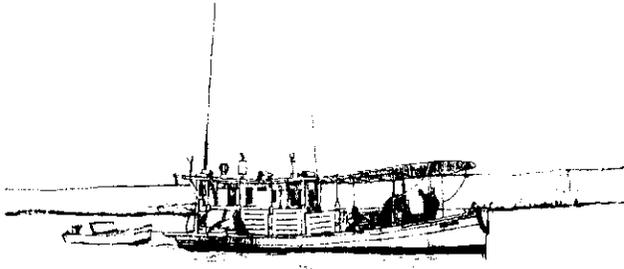
Families/Nutrition/Health

4-H Youth Programs

February 2, 2006 Volume 30, No. 2

## CROP INSURANCE FOR OYSTER FARMERS?

Growing anything for profit can be a risky business. One bad weather event can wipe out a year's investment and work. That is why the U.S. Department of Agriculture (USDA) oversees private sector insurance programs for a variety of crops. Most are typical agricultural crops, but one aquaculture crop, clams, does have a crop insurance program.



Now, Louisiana oyster farmers are trying to get a crop insurance program developed for oysters. The effort began in 2004, when Carolyn Kass Falgout, then president of the Louisiana Oyster Dealers and Growers Association, approached the Louisiana Farm

Bureau Federation with the idea. Farm Bureau's Oyster Farmer Advisory Committee, held several information-gathering and planning meetings.

The approach that the committee favored was to contract a consultant, Crop Insurance Systems, Inc. (CIS) to determine feasibility, and if feasible, to develop an oyster crop insurance program. Farm Bureau requested that the Oyster Task Force provide a \$20,000 payment to CIS for the work. If the USDA's Risk Management Agency approves the submission by CIS, it will repay the \$20,000 to the task force.

Task force chairman Mike Voisin is upbeat about the effort saying, "This has been talked about for years. But no one picked up the ball and ran with it until Carolyn (Falgout) and the commodity committee did it." He adds that if everything goes well, he hopes to see an oyster crop insurance program in place for the early 2007 oyster-planting season.

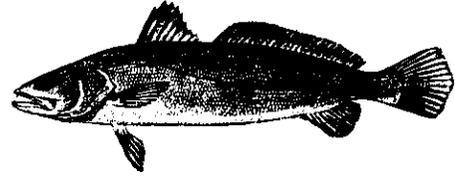
At this time, CIS is working in the field to arrange meetings to meet directly with oyster producers. Participation by oyster farmers is important for the development of a program that will work.



Ron Harrell, Commodity Director for Louisiana Farm Bureau expresses his thoughts, "I think that crop insurance is something the oyster industry needs, in light of our experience with Hurricanes Katrina and Ivan. It is good risk management if the CIS study shows it is affordable."

## WHITE TROUT

In Louisiana, the speckled trout is the king of coastal fishes. Its blue-collar cousin, the sand seatrout gets very little respect. Known for delivering a wallop hit, followed by a wimpy fight, it is often released by disappointed speck anglers "because it's only a white trout".



Knowledgeable anglers, however, know that when fresh and properly handled, this common fish, usually called white trout, is better tablefare than similarly handled speckled trout. It is indeed a common fish. Biological surveys always show it as one of the top five most abundant bottom fishes. Research has indicated that sheerly because of its numbers, it is one of the top shrimp predators in the Gulf. It is a common fish in shrimp trawl bycatch. Wherever shrimp are found, sand seatrout are found.

Some biologists debate whether it is a separate species from the weakfish or gray trout (*Cynoscion regalis*) of the mid-Atlantic states. Most do recognize the sand seatrout as a separate species (*Cynoscion arenarius*).

White trout mature early, typically at 12 months and 5½-7 inches in length. Spawning occurs from March through September, with peaks in March-April and August-September and very little spawning occurring in mid-summer. Spawning early in the season takes place offshore at depths of 50-260 feet. Spawning activity moves shoreward as the season progresses. Most spawning is thought to take place in the lower estuaries or in shallow Gulf waters.

A 9 to 10-inch female can produce as few as 28,200 eggs or as many as 324,900 eggs per spawn. Females will spawn several times per season. White trout larvae and juveniles migrate into small bayous and shallow marshes in the upper estuary. As they grow, they move to deeper water.

Most white trout live only 1-2, possibly 3 years. Various studies have estimated that 90% to 99.8% die per year after passing the larval stage. Very few live long enough to grow to 12-inches, although 20-inchers are recorded.

White trout show a regular annual migratory pattern, moving offshore during the fall and winter and returning to the bays and estuaries in spring and summer. This places them between their close relatives, the silver seatrout (*Cynoscion nothus*) which usually remains offshore, and the speckled trout (*Cynoscion nebulosus*) which typically stays in bays and estuaries throughout the year. The annual movement cycle of white trout seems to be totally driven by water temperature changes, rather than by salinity changes.

Young sand seatrout feed primarily on pinhead-sized crustacean zooplankton. As they grow, they eat larger crustaceans, such as various kinds of shrimp. At around 6-7 inches, they begin feeding more heavily on fish. Anchovies, menhaden and even other white trout are commonly eaten. In the fall and winter and in offshore waters more crustaceans are eaten. In the spring and summer and in inshore waters, more finfish are consumed.

Source: *Life History and Ecology of Sand Seatrout Cynoscion arenarius Ginsburg in the Northern Gulf of Mexico: A Review.* James G. Ditty, Marty Bourgeois, Rick Kasprzak and Mark Konikoff. Northeast Gulf Science, Vol.12, No. 1, pp 35-47. 1991.

## TWO NEW SPECIES ADDED TO FISH RECORDS PROGRAM IN 2006

The Louisiana Fish Records Program became larger by two species on January 1, 2006. Chosen from freshwater was the yellow bass, while the saltwater selection was the bigeye tuna.



The yellow bass *Morone mississippiensis*, is a small, but willing biter and a spunky fighter. They are common in virtually all of the state's bayous, streams, rivers, swamps and lakes, but seem to reach their greatest abundance in lakes with clear water.

The yellow bass seldom grows over one pound in weight although reports of two-pounders are made occasionally. It resembles the other two members in its family, the striped bass and the white bass. Like the striper and the white bass it has distinct black bars (hence the common name, barfish) on its sides that run the length of the fish.

Unlike in the striped bass, where the bars are all continuous for the length of the fish, the bars on the lower half of the yellow bass are sharply broken and offset two-thirds of the way back on the fish. White bass bars are also broken, but not as distinctly as the yellow bass. The black bars on the yellow bass also are bolder than those of the white bass and unlike the white or striped basses, the yellow bass is distinctly yellowish or brassy in color compared to the flat white of the other two.

Yellow bass feed greedily on small fishes and freshwater shrimp. They will strike any small spinner bait or jig. Yellow bass are good tablefare.

The other fish added in for 2006 is from the opposite extreme, the deep blue sea. The bigeye tuna, *Thunnus obesus*, can reach 500 pounds, making it the second-largest tuna species, behind bluefin tuna. According to Fish Records Committee member Glenn Thomas, who urged its selection, more and more bigeye tuna are being caught by Louisiana anglers because more big game angling is being done at night.



Bigeye tuna feed on mackerel, other tuna, flying fish, snake mackerel and squid, amongst other species. They can also actively strain tiny larval crabs and shrimp from the water with their gill rakers. They feed at depths of up to 1,000 feet during the day and nearer to the surface at night.

Being warm-blooded fish, bigeye tuna combine slashing speed and heavyweight slugging power. Their flesh is light red to red in color and has a high oil content. It is excellent for sashimi, as well as for grilling or broiling.

Bigeye tuna are most easily confused with small and medium yellowfin tuna. In a live specimen, it has a faint iridescent blue band along its side rather than the yellowish band of yellowfin tuna. It definitely has larger eyes, but this is a difficult feature to depend upon for identification unless a yellowfin tuna is present for comparison, or the angler is highly experienced. Large yellowfin tuna are easily identified by the long crescent-shaped extensions of the anal and dorsal fins, which never occur in bigeye tuna.

Bluefin tuna are easy to separate from bigeyes because bluefins are the only tuna with a reddish-brown second dorsal fin. Blackfin tuna have dusky-colored finlets located behind the dorsal and anal fins, compared to the yellow finlets of bigeye tuna.

Committee Chairman Bill Ford says, "the new categories were added to create more opportunity for the average angler to be in the record book. In addition to these two species", he adds "anglers still have a lots of opportunities to get their names in the record books for other species, since some species categories do not have ten entries in them." For these, any size fish entered will qualify for the top ten.

Examples of freshwater fish that don't have the full ten entries include bluegill, flathead (yellow) catfish, channel catfish, white crappie, freshwater drum (gaspergou), and alligator gar. Saltwater species include blue runner (hardtails), gafftopsail catfish, yellowfin grouper, yellowedge grouper, gray triggerfish and southern stingray.

Separate categories are kept for fish caught by fly rod and even more openings exist in these categories. Entry of a fish into the Fish Records Program costs \$25. Updated fish records can be found at [laoutdoorwriters.com/index.asp?pg=fr\\_choose](http://laoutdoorwriters.com/index.asp?pg=fr_choose), [rodreel.com/lafishrecords](http://rodreel.com/lafishrecords) and [Louisianasportsman.com/fishrecords](http://Louisianasportsman.com/fishrecords).

A paper copy of the records can be obtained by sending a check for \$5 to LOWA Fish Records, P O Box 8571, Clinton, LA 70722-8571. Ford can be contacted at 225/719-1486 or at [fishrecords@yahoo.com](mailto:fishrecords@yahoo.com). The Louisiana Fish Records Program is maintained by the Louisiana Outdoor Writers Association.

## **OFFSHORE FARMS**

When the subject of offshore farms come up, it is very easy to assume that the farms are fish farms. But a new kind of offshore farm has received permits to operate in the Gulf of Mexico, seven miles off Galveston Island, Texas. Permits for an 11,000-acre

wind farm were issued to Galveston Offshore wind, a subsidiary of Wind Energy System (WEST) of New Iberia, Louisiana.

The farm will utilize 50 giant wind-driven propeller turbines to churn out 150 megawatts of electricity, enough to power 40,000 homes. Research and development using test towers will take place the first two years, with complete construction of the wind farm done in five years.

According to Harold Schoeffler of New Iberia, Director of Galveston Offshore Wind, the wind farm will be built to withstand category 5 hurricanes. This will be done partially by putting the turbines on jack-up legs and partially by using fold-up blades on the turbines. When a storm threatens, says Schoeffler, two of the blades can simply be folded over on the third one and the entire turbine jacked 100 feet lower, where wind speeds are substantially reduced.

Schoeffler also says that the turbines will be located far enough offshore that they will kill few migrating birds, which do not drop in altitude on their flight across the Gulf until they near land. He adds that each turbine will be filmed by cameras to monitor bird strikes. Power lines leading shoreward from the turbines will be buried 16 feet beneath the bottom until 3,000 feet from the shore, then the lines will be drilled in 300 feet below the beaches.

The structures will also be designed with fishermen in mind. Each will be specially built with a rack beneath, holding limestone rubble. Fishermen will be welcome to fish at the structures. Parts of each structure will be recycled from used offshore oil and gas platforms.

Schoeffler, a well-known Louisiana environmental advocate is both upbeat on the potential for wind energy and very critical of Louisiana's energy policy. "The mother lode of wind power," he says "is off Louisiana. Only 23 category 7 (premier) sites for wind power exist in the United States. And eight of those are located between Galveston and the mouth of the Mississippi River."

Schoeffler says that Louisiana is also the home of the technology for constructing and servicing offshore structures. Yet even with these advantages, the best location in the U.S. for wind power, Louisiana, is not in the picture for what he calls "green power". The reason, he contends, is that Louisiana's laws are so restructured as to effectively prevent the sale of green power.

Schoeffler does add that the structures for the turbines will be built in Louisiana, at the port of Iberia.

## **RULE CHANGES PROPOSED FOR TROUT**

The Louisiana Wildlife and Fisheries Commission issued a notice of intent at its January 5, 2006 meeting to modify existing speckled trout rules in parts of Cameron and Calcasieu parishes, including Calcasieu and Sabine Lakes and adjacent offshore waters.

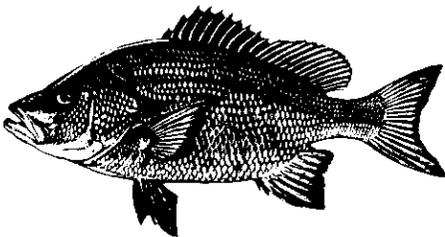
The proposed rule would change the current 25 fish daily bag limit to a daily take and possession limit of 15 fish within that area, regardless of where taken, with no more than two spotted seatrout over 25 inches total length. Those spotted seatrout exceeding 25 inches in length would be considered as part of the daily recreational bag limit take and possession limit.

The rule would be effective within those areas of the state, including coastal territorial waters, south of Interstate 10 from its junction at the Texas Louisiana boundary eastward to its junction with Louisiana Highway 171, south to Highway 14, and then south to Holmwood, and then south on Highway 27 through Gibbstown south to Louisiana Highway 82 at Creole and south on Highway 82 to Oak Grove, and then due south to the western shore of the Mermentau River, following this shoreline south to the junction with the Gulf of Mexico, and then due south to the limit of the state territorial sea.

Interested parties may submit comments relative to the proposed rule to Harry Blanchet, Marine Fisheries Division, Department of Wildlife and Fisheries, P.O. Box 98000, Baton Rouge , LA 70898-9000, prior to April 6, 2006.

## **BLOWED-UP**

Evidence is increasing that the use of minimum size limits is not an effective management tool for red snappers. With minimum size regulations, large numbers of undersized fish must be released. If the fish die after release, the net effect is that the regulation **increases** rather than controls deaths due to fishing.



The culprit is catastrophic decompression syndrome (CDS). The gases in the body of a fish reeled in from deep water dramatically expand because water pressure nearer the surface is much less than at the depths that the fish was hooked in. The visible symptoms of CDS can be dramatic — bulging eyes, bleeding, the stomach blown out of the mouth, and intestines protruding from the anus.

Such fish, when returned to the water, cannot keep themselves upright.

With such external damage, internal damages are also bound to be present. Biologists from the University of West Florida conducted a laboratory study to further research these internal damages. Over a 3-year period, 132 red snapper were collected by hook and line from depths of 100-200 feet off the Florida Panhandle.

Blown swim bladders were vented and the fish were treated with antibiotics. The quality of the water that the fish were held in on board the vessel and in the lab was carefully monitored. Each fish was quarantined for 5 days and all were held at least 14 days before being used in experiments. The fish were regularly fed. About 23% of the red snapper died within one hour after capture and venting. Another 10% died during transport to the lab or within 12 hours after reaching the lab.

In the experiments, the surviving fish were placed in a flow-through, high-pressure chamber that let the biologists control water pressure. The red snapper were allowed to get used to their new surroundings in the chamber for 2-3 hours before pressure was increased.

Pressures were slowly increased to minimize stress and allow the fish to build matching pressures in their air bladders. Some fish were put under low pressures, equal to those at 100 feet of depth, others to medium pressure (165 feet) and others to high pressure (360 feet). Each fish was held at its pressure for 12 hours before undergoing forced decompression similar that what would be experienced in being reeled to the surface. Each fish was then examined, x-rayed and dissected.

The x-rays were revealing. In normal red snapper not suffering CDS, almost 60% of the body cavity space was available for the heart, liver, stomach and intestines. After decompression, much of this space was lost to the expanded gas bladder. Low-pressure fish lost over 25%, medium-pressure fish lost nearly 37%, and high-pressure fish lost over 46% of space available for the internal organs. The swim bladder of a decompressing red snapper first expands toward the rear of the body cavity and then later, toward the head of the fish.

Major damage to nearly all internal organs, as well as external damage, occurred in all decompressed fish. Damages were especially severe for high-pressure (deep-water) fish.

The first injuries to occur are displacement injuries as the expanding swim bladder crowds and bruises the organs. With continued decompression, the expanding swim bladder crushes the organs against the body wall. The amount of damage on the outside of the fish was no indicator of the amount of internal damage, as almost any decompressed red snapper shows external injuries, regardless of the depth it was decompressed from.

Damages to the intestine and gall bladder occurred in virtually all decompressed fish, regardless of pressure. This is probably because the swim bladder expands to the rear first, where it displaces the colon and large intestine, stretching and tearing ligaments and membranes. The intestine telescopes on itself, becomes inflamed, is forced out of the anus and can become gangrenous due to lack of blood flow. The gut can twist on itself, causing digestive problems, inability to pass food, holes in the gut and severe internal infections.

Even mild intestinal damage can cause the fish to have reduced long-term survival. For example, 29 previously decompressed fish captured for this study stopped feeding after weeks of normal feeding behavior and seemingly, died of starvation. Twenty-five of these fish were found to have noticeable intestinal damage. The researchers said that many fish released by fishermen are likely to have this same delayed reaction weeks or even months after release.

The liver, spleen and heart of a red snapper are located in the front part of the body cavity. Potentially fatal injuries to these organs were common in high-pressure fish with CDS. Crushing of the liver by the swim bladder produced bruises and blood clots. Spleens and hearts suffered this damage, as well as tears and bleeding, some of it massive. The results indicated that release mortality might be as high as 90% for red snapper caught from depths of 365 feet.

Swim bladders, especially in medium-pressure and high-pressure fish, suffered damage from being displaced. Damage included holes or tears in the swim bladder wall and damage to arteries and the gas gland. Tears were most often seen in the high-pressure group. In the wild, fish with damaged swim bladders that are not yet healed will be less able to control their buoyancy, probably making them easier targets for predators and less efficient at feeding.

How to reduce fish loss from CDS is a difficult question. Some have suggested reeling fish in slowly to allow them to decompress. These researchers didn't think that red snappers could practically be reeled in slow enough to allow decompression.

Venting (piercing the air bladder) of red snapper has been suggested as a solution. However, just as many studies that show that venting is useless exist as studies that show it works. The researchers also point out that while venting allows a fish to swim down immediately, it does nothing to repair damage to internal organs. They did point out that allowing unvented fish to float off in hot surface water as easy pickings for dolphins is not a good answer either.

The biologists said that management changes may be necessary to help solve the problem. One such change could be to limit fishing to shallower depths, where less release mortality would occur. They point out, however, that some CDS damage occurs even at depths of less than 165 feet. The best solution, they said, may be to manage the fish without size limits, where any red snapper that is caught is kept.

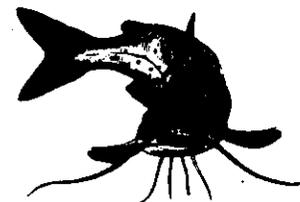
Source: *Physiological Effects of Swim Bladder Overexpansion and Catastrophic Decompression on Red Snapper*. Jodie L. Rummer & Wayne A. Bennet. Transactions of the American Fisheries Society. 134:1457-1470, 2005.

## **THE CATFISH ANGLER**

Recreational fishing for catfish has increased in popularity nationally. Once a scorned fish in the northern U.S., trophy catfisheries have become established as far north as North Dakota. A national survey showed that 26% of all freshwater recreational fishing is for catfish.

Because freshwater catfish have not traditionally been "game" fish, little research has been done on the needs and interests of recreational catfish anglers. Recently, Missouri followed Kansas, Mississippi and Texas in surveying their catfish anglers. While Missouri isn't Louisiana, some of the survey results are of interest to Louisiana.

A total of 12,628 questionnaires were mailed and delivered to Missouri license-holders, of which 5,557 were completed and mailed back. Sixty-four percent of the respondents were catfish fishermen. Some differences between catfish anglers and other anglers were immediately noticeable.



More catfish anglers were males (79%) than among other anglers (74%). Catfish anglers were heavily rural. Almost 40% were rural, compared to 26% of other anglers. Anglers from cities were distributed in the opposite direction, with 27% being catfish anglers and 40% being other anglers.

Catfish anglers were also younger. They outnumbered by percentage other anglers in every age category under the age of 45. In every category over 45, other anglers outnumbered catfish anglers.

The most popular species of catfish in Missouri was the channel catfish, (75%) followed by flathead catfish at 14%, blue catfish (9%) and bullhead catfish (2%).

Rods and reels were listed by about 85% of the anglers as the gear that they most preferred to fish with. Trotline/throwline, limb line/setline and juglines were each listed by not more than 5% of the people as their favorite gear. These types of gear were much more preferred by rural residents than by residents of cities and small towns.

Catfish anglers were also asked how they felt about changing regulations to improve their chances of catching a trophy-sized catfish. When asked if they favored restricting trotlines, setlines or juglines to improve their chances of catching a trophy fish on a rod-and-reel, the majority of anglers said no. Anglers from rural areas were over 7 times more likely to oppose such a restriction.

Anglers were asked if they favored a regulation that decreased the number of fish, they could keep if it improved trophy-size catfish chances. Over half opposed such a measure, especially older anglers and those from rural areas. Such a change was more supported for flathead and blue catfish than for channel catfish.

They were then asked if they would support a requirement that catfish below a certain size being released, if the regulation would improve chances of catching a trophy-sized catfish. Opinion was about evenly split for channel and blue catfish, but was in support for such a measure on flathead catfish. For all three species, rural people opposed such regulations, and small town and city dwellers supported it. Regardless of the species, the older anglers opposed the regulation more than younger ones.

Finally, catfish anglers were asked what they would prefer to catch and keep one 20-pound catfish, two 10-pounders, four 5-pounders or ten 2-pound fish. For every age

group under 65 years old, four 5-pound fish was the most preferred choice. Among the oldest anglers, the first choice was for ten 2-pounders.

From the survey, Missouri Department of Conservation biologists concluded that catfish fishermen are most interested in catching fish to eat. Size of fish caught tended to be more important to flathead and blue catfish anglers than to channel catfish anglers and more support existed to support tighter regulations to produce larger fish for flathead and blue catfish.

Source: *An Analysis of Missouri Catfish Angler Demographics and Opinions for Fisheries Management Alternatives*. Ronald A. Reitz and Vincent H. Travnichek. Proceedings of the Fifty-eighth Annual Conference of the Southeastern Association of Fish and Wildlife Agencies, pp. 66-81. 2004.

## FINANCIAL HELP FOR OYSTER INDUSTRY

U.S. Congress, in emergency supplemental appropriations, has provided \$35 million in funding for assistance to nursery, oyster and poultry producers who were impacted by hurricanes in 2005. The oyster industry must share the money with the larger poultry and nursery industries, but under the law not more than \$20 million can go to the poultry industry. The oyster money can be used to pay for up to 90% of the cost of emergency measures to rehabilitate public and private oyster reefs.

## UNDERWATER OBSTRUCTION LOCATIONS

The Louisiana Fishermen's Gear Compensation Fund has asked that we print the coordinates of sites for which damage has been claimed in the last month. The coordinates are listed below:

<u>Loran Sites</u>			<u>Lat. &amp; Long. Sites</u>		
26868	46969	CAMERON	29 09.410	90 21.059	TERREBONNE
28611	46864	JEFFERSON	29 10.161	89 30.811	ST BERNARD
			29 11.382	90 52.658	TERREBONNE
			29 16.897	89 52.034	JEFFERSON
			29 18.081	89 52.619	JEFFERSON
			29 26.199	90 33.818	TERREBONNE
			29 26.512	89 57.559	JEFFERSON
			29 31.256	89 58.820	JEFFERSON
			29 36.270	89 33.918	PLAQUEMINES
			29 36.284	89 36.169	PLAQUEMINES
			24 46.598	89 32.100	ST BERNARD

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## THE GUMBO POT

### Sardine Pizza

In 29 years of collecting recipes for The Gumbo Pot we have emphasized recipes that have an interesting twist, but that also reflect Louisiana's culinary heritage. Such "fusion" recipes, like salmon gumbo or Cajun cioppino, combine Louisiana cooking styles or ingredients with those from other cuisines. This recipe has a little of everything. It was shared with me by my co-worker Pat Johnson-McKillip who got it from her cousin, Joseph Maddie. Joseph tells us the recipe was his mother Marguerite's and that she prepared it for the altars on that unique New Orleans Italian religious celebration, St. Joseph's Day, held each March 19.

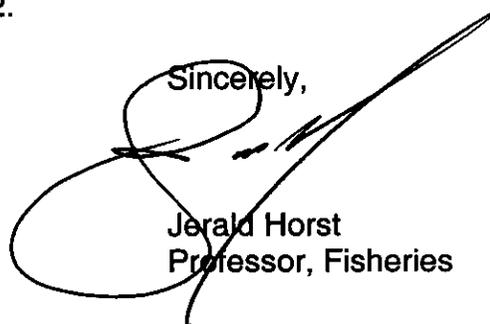
Some tips from when I cooked it. Take your time to wrestle the biscuit dough into nice even layer over the whole pizza pan. It will look thin, but during cooking, it will rise to a nice "thick and chewy" crust. Second, it sounds like a lot of onions, but do not skimp on the onions. They make the recipe. Last, and most important, be sure to use fresh grated Parmesan cheese. It will melt nicely. If you use that dried up, pre-ground stuff from the shaker can, you might as well use sawdust. An option with this recipe is to spread  $\frac{3}{4}$  cup of ketchup on the pizza dough before adding the sardines, seasonings and cheese. I cooked it both ways and prefer the pizza without ketchup.

Sardines may be nature's most perfect health food. Unlike so many fish that we eat in Louisiana, sardines are loaded with omega-3 fatty acids, one of the best dietary components for preventing heart disease. Omega-3 fatty acids have also been linked to lowering the risk of everything from Alzheimer's disease to arthritis.

3 cans sardines	2 tbsp olive oil
2 large onions, coarsely chopped	3 cans (10 to a can) store brand buttermilk biscuits
6 cloves garlic, minced	3-4 oz fresh grated Parmesan cheese

Remove sardines from cans, split and remove backbones. Set aside. Sauté onions and garlic in olive oil until onions are translucent. While the onions are sautéing, remove biscuits from cans, knead and spread down flat on a 12 or 13-inch pizza pan. Spread sardines, onion, garlic and parmesan cheese over dough. Bake in a pre-heated 400-degree oven for 20 minutes. Serves 2.

Sincerely,



Jerald Horst  
Professor, Fisheries