

Lagniappe

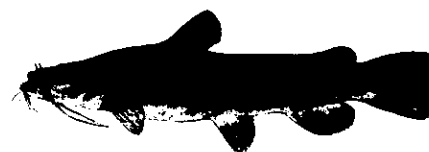


Research and Extension Programs
Agriculture
Economic/Community Development
Environment/Natural Resources
Families/Nutrition/Health
4-H Youth Programs

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VARMIT?

The flathead catfish, also known locally as the yellow or Opelousas catfish or the goujon, is one of the native species of catfish in Louisiana. Here, it is especially prized for its large size and excellent eating qualities. However, it is not so highly thought of in many places. In many Atlantic Coast rivers and lakes, where it is not native, its introduction is thought to have had severe consequences due to its fish-eating diet.



Flathead catfish were first found in 1,100-acre Sutton Lake in North Carolina in 1993. The lake, which serves as a cooling reservoir for the Carolina Power and Light Company (CP&L), had provided excellent fishing for largemouth bass and sunfish (bream). But the fishery suffered a decline in the mid-1990s and CP&L biologists suspected that flatheads were the reason. North Carolina Wildlife Resources Commission (WRC) biologists began an electrofishing (shocking) study to collect flatheads to see what they ate in the reservoir and to see if electrofishing would be an effective tool for removing the fish from the lake. Removal, they felt would help the survival of sunfish population, as well as the 100,000 channel catfish that WRC had stocked in the lake.

Using two low-voltage electrofishing machines, the WRC biologists shocked the waters of the lake repeatedly for five months, June through October. They concentrated their efforts in around deep channels, sunken logs, log drifts, and fish attractors located in deeper waters. A total of 225 flathead catfish weighing 3,410 pounds were caught and removed from Sutton Lake. They ranged in size from 9 inches and 3 ounces, up to 45 inches and 38.5 pounds.

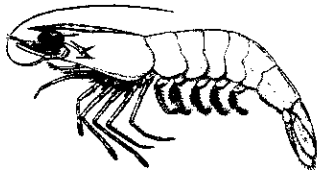
Of the 225 flathead catfish, 124 stomachs contained food, and fish accounted for 92.3% of the food items. The number one food item, by count, was sunfish remains, and by weight, largemouth bass dominated. Sunfish were the number one food item for fish 24 inches long and under, although some crawfish and mussels (freshwater clams) were found. Largemouth bass were found only in flathead catfish over 24 inches, but

made up 52.6% by weight of all the food items. It was not uncommon to remove 12 to 19-inch largemouth bass from the stomachs of 29 to 40-inch flathead catfish.

The biologists concluded that the flathead catfish in the lake were feeding heavily on bass and sunfish. As many as 18 sunfish were taken from one stomach. There was little evidence that they were feeding on the stocked channel catfish. Each month that they electrofished, they caught more flathead catfish, rather than less. Part of this may be due to the shocking crew becoming more efficient and part due to the flatheads returning to deep water in the summer from their shallow-water spawning cavities. The biologists decided that electrofishing would not be effective at removing flathead catfish, even from this fairly small lake.

Source: *Flathead Catfish Diet Analysis, Stock Assessment and Effects of Removal on Sutton Lake, North Carolina*. T. Mason Herndon, Jr. and Christian T. Waters. Proceedings of the Fifty-fourth Annual Conference, Southeastern Association of Fish and Wildlife Agencies. 2000.

“E” FOR EFFORT



In fisheries management terms, “effort” is defined as the amount of time and fishing power used to harvest fish. Fishing power includes gear size, boat size and horsepower. Actual fishing effort is almost never known in a fishery, but rather it is estimated from samples. Having a reasonably accurate estimate of effort in a fishery, like the shrimp fishery, is critical, as the bycatch of creatures such as sea turtles or red snappers is calculated from effort.

Representatives of shrimping organizations and individual shrimpers have long maintained that the National Marine Fisheries Service (NMFS) overestimates the catch of sea turtles and red snappers in shrimp trawls because NMFS overestimates effort. The Gulf of Mexico Fishery Management Council’s Shrimp Advisory Panel has repeatedly stated the same thing.

Shrimp fishing effort is not measured directly, but rather is estimated by NMFS port agents based on landings data and interviews with shrimp boat captains. The shrimp landings data gathered from dealers is assigned to zone cells into which the entire Gulf shelf area is divided. Shrimp catch per day per boat (catch per unit of effort or CPUE) is then divided into the landings in each zone to get shrimping effort. No means has existed for evaluating the accuracy of this system.

This year a team of biologists led by Benny Galloway, who is with the Texas consulting firm of LGL Ecological Research Associates, released a paper critiquing the NMFS shrimping effort estimation system. Galloway has been involved in other shrimping issues before. In a 1998 paper, he produced evidence that bycatch of young red snappers in trawls averaged 30-47% lower than NMFS estimates. Another analysis

which was published in 2000 supported Galloway, estimating red snapper bycatch for 1987-1995 to be 40% lower than NMFS numbers. In 1999, Galloway co-authored a paper that indicated that the bycatch reduction device (BRD) that NMFS requires that federal water shrimpers use, excludes only 25-27% of juvenile red snapper, not the 59% that NMFS estimated.

In this study, the researchers developed what they called an electronic logbook (ELB), an electronic device that automatically records where a vessel is located every 10 minutes. With 50 ELB units, they decided to try to keep 44 on randomly selected shrimp vessels each 4-month period (January-April, May-August, September-December). ELB data was retrieved from each vessel and summarized by tow. Records were then searched for ELB trips that also had NMFS port sampler interviews conducted on them. In this pilot study, 51 ELB-equipped vessels made 180 trips and of these, the researchers found NMFS interview data for 62 of them, all from south and central Texas, or from Alabama. None were from Louisiana or Mississippi.

Comparison of the data from the ELB to the NMFS interview data showed some significant differences between the two.

- 1) Shrimp vessels fish in more zone cells per trip than NMFS data shows. The NMFS estimate was 1.3 cells fished per trip. The ELB data showed an average of 9 cells per trip. Overall, over 100 different zone cells were fished by ELB-equipped vessels, compared to port agent estimates of 47 zone cells fished for the same trips. This suggests that many shrimp landings are being assigned as having come from the wrong areas of the Gulf.
- 2) The error in assigning where shrimpers fish was not random and did not "balance out". NMFS port agents typically overestimated shrimp landings by 2½ times from the mid-depth ranges (10-30 fathoms) that are important areas for young red snapper, and underestimated shrimp landings from deeper waters further offshore and from shallow nearshore waters. Landings assigned to shallow nearshore waters were only 4% of the actual landings taken there on the same trips. This is the area in which the Texas Parks and Wildlife Department (TPW) has restricted shrimping in because of high numbers of Kemp's ridley sea turtles. One of the justifications used by TPW was that based on NMFS landings estimates, this area was not important to the shrimp fishery. The ELB data showed 2000 landings from this area to be 23 times higher than NMFS estimates.
- 3) NMFS overestimated the length of shrimping trips in 2000 and therefore overestimated the amount of shrimping effort which occurred. NMFS estimates were 13% too high, at an average of 11.9 days per trip, compared to ELB data showing 10.4 days per trip. This is important because NMFS has maintained that one of the most serious problems in the federal water shrimp fishery is too much shrimping effort.

The authors of the report did make two cautionary notes. First, NMFS annual estimates are the sum of 12 monthly estimates and they assumed that the differences between ELB and NMFS data are the same over the 12-month period. Second, they had assumed that the differences in data from this small pilot study are the same for the entire Gulf fleet.

After adjusting the NMFS data based on the ELB data, the estimate of Gulf shrimping effort declined 16% (from 206,259 days to 173,121 days), even though only half the total effort was adjusted. Also, the NMFS effort estimates for 2000 suggested that 84,673 days were spent shrimping in high-value red snapper habitat. After adjustments, this dropped to 36,934 days, a 56% reduction.

The researchers stated that there was good cause to reevaluate all of the estimates on Gulf of Mexico shrimp trawl bycatch — from sea turtles to red snapper. They felt that the bycatch of mid-depth species, such as red snapper, is overestimated. On the other hand, bycatch of deepwater species, such as vermilion snapper, and bycatch of nearshore species, such as sea turtles, may both be underestimated.

They suggested that more accurate reporting is required for good management, and that it can be obtained from ELBs. Port agents can be used to install the ELBs and get the data. ELBs require no extra work on the part of shrimp vessel crews and from their experience, the shrimp industry has no objection to their use.

Source: *An Evaluation of an Electronic Log Book (ELB) as a More Accurate Method of Estimating Special Patterns of Trawling Effort and Bycatch in Gulf of Mexico Shrimp Fisheries.* Benny J. Galloway, John G. Cole, Larry R. Martin, James M. Nance, and Michael Longnecker. Manuscript accepted for publication in the *North American Journal of Fisheries Management*. August, 2003.

SIERRA CLUB SPONSORS ATCHAFALAYA WORKSHOP



The Buffalo Cove area is one of the most scenic areas in the Atchafalaya Basin. However, like much of the Basin, it suffers from poor water circulation, due both to human alterations and natural siltation. The Buffalo Cove Water Management Project was authorized by Congress as a pilot water management unit in 1986.

The Sierra Club is sponsoring a public workshop on the Corps of Engineers Buffalo Cove Project. At the workshop, the Corps and other agencies will address concerns that the project may not meet the goal of restoring historic water overflow conditions, and may, in fact, contribute to siltation of swamp habitats and a reduction in water quality.

The workshop will be held at 7 p.m. on Wednesday, June 25 in the Louisiana Room of the Wildlife and Fisheries Building at 2000 Quail Drive in Baton Rouge.

RED LETTER

On April 25, 2003, four environmental groups, the Gulf Restoration Network, ReefKeeper International, Oceana, and the Ocean Conservancy sent a strongly worded letter about red snapper management to the Southeast Regional Director of NOAA Fisheries (National Marine Fisheries Service). The letter charged that the Gulf of Mexico Fishery Management Council's last two proposals for red snapper management were judged as inadequate by the Secretary of the Department of Commerce. The groups requested that NOAA Fisheries take the lead on management of the red snapper fishery from the Gulf Council, because of the Council's history of delay and inability to put together a rebuilding plan. The letter points out the following failures by the Council:

- Current and proposed management promotes continued overfishing in the short term.
- The total allowable catch of 9.12 million pounds is at least 3 million pounds higher than that recommended by scientists.
- The Council's red snapper rebuilding plans depend on bycatch reduction devices (BRDs) excluding 60% or more of young red snapper from trawls, which they have not done.
- The target date for red snapper population recovery has been delayed several times since 1990, with the current date set at 2019. The Gulf Council has proposed that the target recovery date again be moved back, this time to 2031.

The letter documented 11 points where the Gulf Council's most recent attempt to manage red snapper fell short of legal requirements. The letter said that the failure "... suggests more than strongly that political pressure and economic stakes are preventing the Gulf Council from adequately addressing the problem." The letter goes on to say that more than 13 years after red snapper were found to be overfished and more than 4 years after an adequate rebuilding plan was required, there is still no approved plan. Also, the letter charged that the recreational fishing sector in 2002 caught 5.81 million pounds, 30% over their annual catch quota of 4.47 million pounds.

The letter made six specific recommendations.

- 1) The total catch quota should be reduced to a maximum of 6 million pounds per year.
- 2) NOAA Fisheries should take over full responsibility for red snapper management from the Gulf Council.
- 3) NOAA should fully address the bycatch requirements of the Magnuson-Stevens Act, including data collection, identifying research priorities, bycatch reporting standardization, and minimizing bycatch and bycatch mortality.

- 4) NOAA should consider the use of marine protected areas (MPAs) to reduce red snapper overfishing.
- 5) The 2003 recreational red snapper season should be shortened to make up for the 30% over-the-quota harvest in 2002.
- 6) NOAA Fisheries should develop a plan that follows a precautionary approach and promotes stock rebuilding in as short a time as possible. Time frames for recovery should not be extended to make up for previous mismanagement.

The four groups asked that if NOAA Fisheries does not adopt one of the recommendations, that the agency explain how not adopting the recommendation meets the goals and requirements of the Magnuson-Stevens Act.

C.C.A. BLASTS N.M.F.S.

The Coastal Conservation Association (CCA) of Florida released in February 2003, a report highly critical of the National Marine Fisheries Service (NMFS). The report accuses NMFS of having a bias against recreational fishing interests, in favor of the commercial fishing industry.

In the 23-page report, CCA-Florida supported their accusation of bias by citing NMFS actions in management of several fisheries, gag grouper in the Gulf, amberjack in the South Atlantic, and sharks and yellowfin tuna in both areas. Concerning gag grouper, the report said that Gulf of Mexico Fishery Management Council actions resulted in a 42% reduction in recreational harvest, with no reduction in commercial harvest. CCA-Florida further maintained that these actions were put through largely by votes from the other four Gulf states, even though most of the fishery is in federal waters off of Florida.

On amberjack, the report states that under federal management the fishery was shifted from a predominantly recreational fishery to a predominantly commercial fishery. Sharks in the Atlantic, the report charges, were a minor fishery prior to the 1980s, that NMFS promoted into overfishing as an underutilized commercial fishery by the mid-1980s. Yellowfin tuna in the Gulf went from a 25,000-pound commercial fishery in 1980 to a 14-million pound fishery in 1988. Yet, NMFS placed a 3-fish daily limit on recreational fishermen, with no commercial quotas, bag limits or trip limits being placed on the commercial fishery.

In the report, CCA-Florida made three recommendations for change.

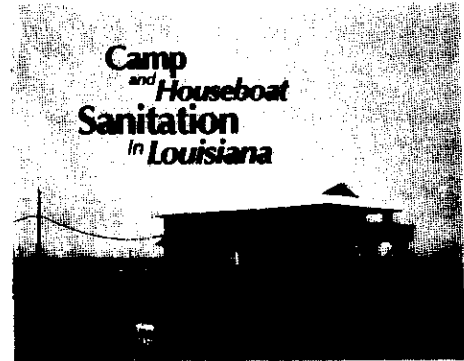
- Congress should amend the Magnuson-Stevens Fishery Conservation and Management Act to reduce conflicts of interest by prohibiting the appointment to federal fishery management councils of paid lobbyists for commercial, recreational or other special interest groups whose interests could be affected by council actions.

- Congress should amend the Magnuson-Stevens Fishery Conservation and Management Act to allow a state fish and wildlife agency to request the development of a joint state and federal fishery management plan when 70% of more of a fishery in a region is taken off of and landed in that state. The regulations in the plan would apply only to state and federal waters off of that state.
- The U.S. Department of Commerce/NMFS must eliminate the “double standard” that is used in determining the membership of federal councils. CCA-Florida maintains that NMFS appoints more commercial than recreational people to councils such as the New England and North Pacific Councils because commercial fishing dominates the fisheries in those areas. Yet, for councils such as the South Atlantic and Gulf of Mexico Councils, where CCA-Florida says recreational fisheries are of greater economic value, NMFS says that federal law requires that appointment be “fair and balanced” with somewhat equal numbers of commercial and recreational representatives.

Source: *Failures and Exploitation Bias in Federal Fishery Management Programs, Recommendations for Systematic Changes.* Coastal Conservation Association Florida. February 26, 2003.

NEW CAMP & HOUSEBOAT SEWAGE MANAGEMENT BOOK AVAILABLE

The LSU AgCenter and Sea Grant Program has produced a new publication that explains in detail the rules and requirements for sewage systems at camps and houseboats and how to meet them. Besides covering the options on treatment methods and systems, the booklet contains operation and maintenance hints on sewage. As more and more people use Louisiana’s waterways and wetlands, the rules that protect them from pollution have become stricter. Anyone interested in a free copy of this publication may call their local extension marine agent’s office.



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David Bourgeois	Houma & Cut Off	985/873-6495, 504/632-6852
Sandy Corkern	Franklin	337/828-4100, ext. 300
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Thomas Hymel	Jeanerette	337/276-5527
Brian LeBlanc	Covington	985/893-4449
Kevin Savoie	Lake Charles	337/491-2065
Mark Schexnayder	Metairie	504/838-1170
Mark Shirley	Abbeville	337/898-4335

THAT'S C.O.O.L.!

In 2002, U.S. Congress passed within the Farm Bill, country-of-origin labeling (COOL) in an attempt to help U.S. food producers. By September 30, 2004, most fresh and frozen seafood, as well as produce, beef, lamb, and peanuts that are sold in U.S. grocery stores will have to be labeled with the product's country of origin. Seafood must also be labeled as "farmed" or "wild."



COOL has the strong support of much of the U.S. commercial fishing sector, who feel that if consumers are given the choice, will choose U.S.-produced seafoods over imports. Domestic seafood processors have not made much comment about COOL. Seafood importers, on the other hand, are both vocal and negative about the legislation. Speaking loudest in public on the issue is the National Fisheries Institute (NFI), a national trade association that represents both the domestic seafood and seafood import industries.

Concerns include the cost of the program, which could be as high as \$1.6 billion annually, according to an estimate by the Agricultural Marketing Service (AMS) of the U.S. Department of Agriculture. Records are required to be kept for two years at every step of the marketing chain, and retailers can be fined \$10,000 per day for mislabeled products. Concern also exists that COOL costs may make seafood less competitive with exempted products such as poultry. Retail grocers may choose to buy their seafood from fewer sources to simplify their record-keeping and labeling requirements. This may be especially true for shrimp, where some of the least product labeling and the most product co-mingling seems to occur. According to Justin LeBlanc, NFI Vice-president of Government Affairs, these may be very high costs to just present to consumers information that they may not want or need.

Reaction from the retail food industry has been mild and mixed. Some retailers have expressed the opinion that COOL may help business. Some outside observers have stated that retail industry has yet to wake up and study the effects of COOL on their businesses.

The public comment period for COOL ended on April 9, 2002 and now AMS is preparing final COOL rules. They are sure to get plenty of advice, particularly in what are "gray areas". One such is the exemption from labeling for ingredients in a processed food product. AMS guidelines have so far interpreted this exemption from COOL to be for two situations.

First, would be for products that have a combination of ingredients, and the identity of the processed food item is different than the seafood that went into it. The second exemption is for seafood that has been "materially changed." According to AMS guidelines, this would include cooked and canned products such as tuna, salmon and sardines, and restructured fish products such as fish sticks, breaded shrimp, surimi, sushi, crab salad, and so forth.

The guidelines currently say that all fresh and frozen fish and shellfish items must be labeled under COOL. Some seafood retailers, distributors and processors maintain that frozen products should be exempt because they are processed items produced from seafood. They argue that Congress intended to exclude frozen seafood because they didn't include language to clearly include frozen products. U.S. fishermen counter that canned, cooked and breaded products should not be exempt, as a breaded shrimp is still a shrimp and smoked or canned salmon is still salmon. Final rules will be produced by AMS in 2004.

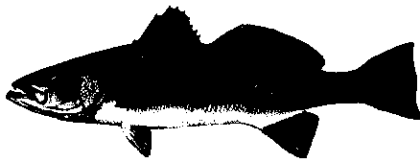
Some things are clear. Exempt from COOL are specialty seafood stores and restaurants, where most of the seafood consumed in the U.S. is sold. Also clear are the requirements for a product to be labeled "U.S. Product." Wild-caught seafood must be caught in U.S. waters or by a U.S. vessel, and must be processed in the U.S. or on a U.S. vessel. Farm-raised seafood must be hatched, raised, harvested, and processed in the U.S.

More information on COOL can be found online at www.ams.usda.gov/cool.

Sources: *Seafood Business*, March 2003. *Country-of-Origin Labeling: Buyers Gain More Influence Over Suppliers*. Dick Gutting. The Wave Online, April 22, 2003. AMS, USDA 2002 Farm Bill Provisions, Country of Origin Labeling, www.ams.usda.gov/cool.

THEY START EARLY (AND DO IT A LOT)

On any good summer weekend, it seems like everyone in coastal Louisiana is out chasing speckled trout. Of course, fishing for Louisiana's most popular estuarine fish isn't limited to the summer. Probably only in February do they get a slight break. With all of that fishing pressure, it's enough to make one wonder how they can reproduce enough to keep their population healthy.



One way that they do it is by beginning to spawn while quite young and by spawning often. Research indicates that in the Gulf of Mexico, most females begin spawning by age-1, and some are mature at age-0 (before their first birthday). Such fish are 10 to 12 inches long. Studies have shown that by age-1, 96% of females in Louisiana are mature, followed by 80% in Mississippi, and 78-100% in northern Florida and 68% in Texas.

During the April to September spawning period, female speckled trout can spawn once every 4-5 days or 40 to 50 times per year. Spawning activity seems to have two peaks, one in May and another in August. Older fish and those spawned early in the spawning season of the previous year produce the first peak. The theory is that the

August peak is partly due to fish spawned late in the previous year coming into maturity. Speckled trout seem to spawn more frequently at the beginning and end of the season and less often during June or July. Older trout spawn more frequently than young fish.

Spawning is done at water temperatures of 71-93° F. About 4-6 hours before spawning, the eggs to be spawned begin to swell with water (hydration), roughly doubling in size. Spawning begins at dusk. The best salinity seems to be 20 parts per thousand (seawater is 32-35 ppt). At salinities below 10 ppt or over 45 ppt, the stress on speckled trout is so high that they have little energy left for reproduction.

While the spawning of young fish is important, they don't individually produce as many eggs as larger fish. Egg production for each spawn is from 8,400 to 11,200 eggs per ounce of body weight (minus the weight of the eggs). Estimates on total annual egg production range from a low 28,000 for age-1 fish in Louisiana to 52 million for age-5 fish in Florida. The low number for Louisiana fish may be an underestimation when compared to other states.

Source: *The Reproductive Biology of Spotted Seatrout*. Nancy J. Brown-Peterson. Biology of the Spotted Seatrout, pp 99 -133. CRC Press. 2003.

GOING BARBLESS

Fish may be released after being caught for several reasons. They may be under minimum or over maximum size limits. Also, some anglers practice catch-and-release fishing, keeping little or none of their catch. In any case, not all fish released survive the ordeal. One method of possibly increasing survival is with the use of barbless hooks, with the theory being that the fish would spend less time out of water, and would have less handling, and therefore less damage. In several areas on the Pacific Coast, barbless hooks are required.

Researchers in Florida put the theory to the test, fishing on an artificial reef and rock ledges six miles west of St. Petersburg. They took six fishermen (with limited fishing experience) out on seven fishing trips. Half used barbless hooks and half used hooks with barbs. Halfway through each trip, they swapped hooks. The barbless hooks were prepared by flattening the barbs with pliers and all hooks were sharpened. Squid was used for bait. They caught a total of 479 fish of 15 species, with sand perch, blue runner, grunts, gray triggerfish, and gag grouper being the most common, in that order.

The researchers found no difference between hooks on bait loss, size of fish caught, bleeding, or hooking location. However, anglers caught 22% fewer fish on barbless hooks. This was especially noticeable for blue runner and gag grouper. Anglers using barbed hooks caught more than six times as many gag as those going barbless. Fish caught on barbless hooks were unhooked in less than half the time, compared to those caught on barbed hooks. This was especially true for larger species such as gag and black sea bass, which tended to swallow the hook.

The researchers concluded that in the fishery they sampled it was unlikely that barbless hooks would reduce deaths in released fish. They point to other studies that indicate that where a fish is hooked is more important than the length of time before a fish is released, although just removing fish from the water causes some stress. They suggested that anglers can reduce release deaths by using artificial lures large enough to prevent swallowing, and by fishing "tightline" when using natural baits. Both reduce deep hooking of fish.

Source: *Performance of Barbed and Barbless Hooks in a Marine Recreational Fishery*. Jeffrey S. Schaeffer and Elizabeth M. Hoffman. North American Journal of Fisheries Management. 22: 229-235. 2002.

THE GUMBO POT

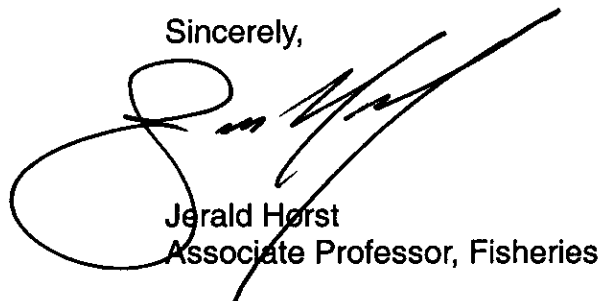
Cheesy Crawfish Bread

Crawfish breads have become very popular and recipes are everywhere. This is a good one, especially if you like hot melted cheese over freshly baked bread. Be sure that the frozen bread dough isn't old. The bread won't rise if the yeast is dead. We used 4 ounces of Monterey jack and 4 ounces of jalapeno jack, instead of just either and the dish was well seasoned.

1	loaf frozen bread dough	1	tsp salt
2	tbsp butter	½	tsp pepper
½	cup onions, chopped	4	oz sharp cheddar
¼	cup parsley, chopped	8	oz Monterey jack cheese
½	cup green onions, chopped		(Jalapeno jack may be
¼	cup bell pepper, chopped		substituted for a spicier
1	lb crawfish tail meat		taste)

Thaw frozen bread according to directions and allow to rise. Turn dough onto a baking pan and pat to flatten. Roll the dough out to about ¼ inch thick. Melt the butter in a skillet. Add onions, parsley, green onions, and bell pepper, and sauté about 5 minutes or until the vegetables are tender. Add the crawfish and sauté for an additional 5 minutes. Spread the crawfish mixture on the middle third of the dough. Grate or dice the cheese on top of the crawfish. Fold dough over and pinch the edges together. Bake at 350 for about 30 minutes (until the bread is browned).

Sincerely,



Jerald Horst
Associate Professor, Fisheries