

# Lagniappe



EXTENSION PROGRAMS  
Agriculture and Forestry  
Community Leadership  
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Environmental Sciences  
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4-H Youth Development  
Natural Resources

October 1, 2001

Volume 25, No.10

## PUBLIC FISHERIES SEMINARS

On November 29, the LSU AgCenter's Marine Extension Program, in cooperation with the National Fisherman Magazine, are sponsoring a series of free commercial fishing seminars at the International Work Boat Show at the Ernest M. Morial Convention Center in New Orleans. Sessions begin at 10:00 a.m. with the agenda below. MARK YOUR CALENDER.

### 10:00 a.m. - 12 noon. Blue Crabs: Are They Overfished?

Blue crabs have been declared overfished in the Chesapeake Bay and harvests are scheduled to be reduced by 15%. Reductions in supply will affect supply and prices nationwide. Are blue crabs likely to be found as overfished in the rest of the species' range, especially the gulf states? A scientist from the Virginia Institute of Marine Science, Jacques van Montfrans explains how Chesapeake crab populations got into trouble and how long they may stay that way. Louisiana Wildlife and Fisheries Biologist Vince Guillory will explain the likelihood of blue crabs in the gulf states being overfished.

### 1:00 p.m. - 2:00 p.m. River Diversions: Will They Affect Fisheries?

The most fisheries-productive wetlands in the United States, those of the Mississippi River Delta, are disappearing beneath the sea at fast rate. Scientists now agree that the most effective way to prevent further loss and perhaps even rebuild some of these wetlands is with large diversions of river water and sediments into these fisheries-rich wetlands. These river waters are cooler and of lower salinity than estuarine fisheries nursery waters and will affect the distribution and/or abundance of important fisheries species. LSU AgCenter Wetlands and Coastal Resources Specialist Rex Caffey will explain what the effects of river diversions on fisheries are likely to be and what will happen to fisheries production without diversions.

### 2:00 p.m. - 3:30 p.m. Shrimp Prices and Supply: Has the Bubble Burst?

Shrimp harvesters are coming off of two of the most profitable years in the history of the fishery. Heavy production along with strong prices combined to make the poor years of 1980s and early 1990s a memory. But for how long? Are the recent downturns in price



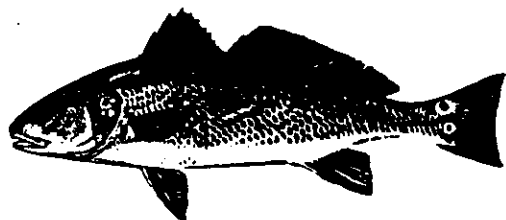
a temporary situation and can shrimp catches hold up? Jim Nance of the National Marine Fisheries Service's Galveston Lab discusses the long and short term outlook for shrimp production and the factors likely to affect it. Ken Roberts, Fisheries Economist with the LSU AgCenter will discuss the world supply and demand situation, including whether foreign aquaculture supply will catch up to world demand.

### **3:30 p.m. - 5:00 p.m. Charter Boats: Are They Recreational or Commercial?**

In most allocation conflicts, two stakeholder groups get recognition at the bargaining table—recreational fishermen and commercial fishermen. Often overlooked is the charter fishing sector. Charter fishing is a growth industry and in many ports it is a powerful economic engine that needs its own supply of fish. In some fisheries, including the Gulf of Mexico red snapper fishery, the charter fleet harvests the majority of the "recreational" catch. Gulf of Mexico Fishery Management Council member and charter fishing vessel owner Myron Fischer discusses the fisheries management and business implications of the industry being neither recreational nor commercial, yet being both. Are there lessons to be learned from the red snapper story?

### **WHAT THEY BITIN' ON?**

That's probably the most common question asked of successful anglers. Very few studies have been done on angler bait use and success. One such study that was done was in Texas. For a ten year period, inshore saltwater anglers were surveyed by Texas Parks and Wildlife Department (TPW) interviewers at boat launches and marinas. Among the questions asked were ones about the types of bait used and their effectiveness on the eight most commonly caught coastal sportfish: speckled trout, redfish, croaker, sand seatrout, flounder, black drum, sheepshead, and gafftopsail catfish. A total of 98,400 interviews from eight different bay systems were conducted.



Coastwide, live shrimp was the most popular bait used, with 30% of all angling parties using this bait. This was followed by worm jigs (plastics) at 17%, live fish at 11%, and dead shrimp at 10%. Spoons were used by a little over 3% and fish-like plugs by less than 3% of all fishing parties interviewed.

Angling parties that were most successful at landing at least one fish used worm jigs (70%), followed by other jigs (69%), spoons (67%) and live shrimp (66%). The least effective bait type was when a combination of 3 or more types of baits were used, probably because the fisherman were trying anything and everything on a bad day. Overall, parties using live shrimp landed the most fish with 29% of the total of 445,187 fish observed in the study. This was followed by worms jigs (17%), dead shrimp (13%), and live fish (11%).

Live shrimp produced 34% of the speckled trout, followed by worm jigs (26%), and live fish (13%). Live shrimp also accounted for the most redfish (22%), followed by live fish (19%), and worm jigs (19%). Spoons came in higher for redfish catch than for any other species at 7%.

The most effective baits for black drum were live shrimp (41%) and dead shrimp (37%), and for flounder, live fish (26%), live shrimp (22%), and worm jigs (20%). An overwhelming 65% of the sheepshead were caught on live shrimp, with another 13% being caught on dead shrimp. Dead shrimp accounted for the highest number of croakers (59%), sand seatrout (26%), and gafftop catfish (22%). Overall, fish-like plugs accounted for only 2% of the trout.

TPW did notice some trends since the last such survey in 1983-1987. Artificial lure use increased, probably due to the opinion that artificial baits produce more or bigger fish. The landings data, however, showed that with the exception of worm jigs, most fish were landed when some sort of natural bait was used.

The most noticeable change in bait use that had occurred since 1983-1987 is a 333% increase in the use of live fish, moving live fish from 10<sup>th</sup> to 3<sup>rd</sup> on the list of baits. This has occurred in spite of an overall decline in the use of natural baits.

Source: *Comparison of Bait Type Use by Sport-boat Anglers in Texas Bays and Passes, 1987-1997*. Artussee D. Morris, Bobby Miller and Brenda G. Bowling. Annual Proceedings of the Texas Chapter, American Fisheries Society. 1999.

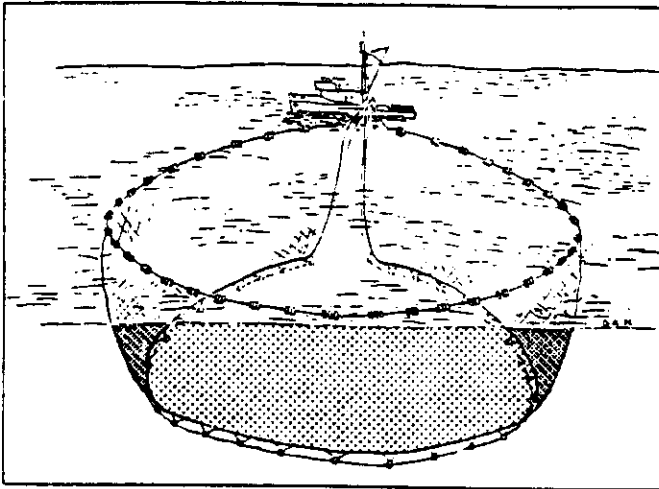
## **MENHADEN FISHERY BYCATCH RESEARCH**

The gulf menhaden, *Brevoortia patronus*, or "pogie" as it is most commonly called provides the basis for Louisiana's largest commercial fishery by weight. Landings average roughly a billion pounds per year. Although some of the catch is sold for bait used in recreational and other commercial fisheries, most of it is processed into oil, meal and solubles which have a wide range of uses.

Because of the size of the fishery, its importance to predator fish in the food chain, and the large-scale gear used to harvest the fish, the fishery frequently catches the attention of other fishermen. Some of the recent attention to Louisiana's menhaden fishery is spillover from concern over the Atlantic Coast fishery for the Atlantic menhaden, *Brevoortia tyrannus*, which is centered in the Chesapeake Bay region.

There, scientific monitoring of menhaden shows a declining trend in the number of one year old fish in the population since 1990. This is called declining recruitment. The reason for this does not seem to be a low number of spawners, as the number of adult

females in the population is quite high, especially since 1995. Other reasons for the low number of 1-year-old fish could be poor environmental conditions or heavy predation by other fish on small menhaden. Scientists do caution that the consistent decline in recruitment should result in a smaller adult spawning population in coming years. In contrast to the uncertainty on the Atlantic Coast, Gulf of Mexico menhaden stocks are considered healthy and not overfished.



Menhaden are harvested with purse seines. These large nets are set with two small boats. When the school of fish is surrounded by the net, the bottom of the net is closed or "purse" by drawing in a line through rings at the bottom of the net, leaving the fish school completely enclosed. The set is then "hardened" by part of it being retrieved on the boat with a power block. When enough of the net is retrieved, the fish become densely concentrated in the part left in the

water. They are then suction-pumped into the refrigerated hold of the mother ship.

Because of the size and efficiency of purse seines, some people assume that the fishery has a large amount of bycatch other than the menhaden and "herring-like" species that are the target of the fishery. The latest research done on bycatch in the gulf menhaden fishery was conducted by two Louisiana State University scientists who spent 51 weeks in 1994-95 on board menhaden vessels sampling the catch. Samples were taken from the fish being pumped into the hold of the vessel from purse seine sets and all fish were identified, counted and weighed.

In 1994, 220 sets were sampled from sets averaging 92,438 menhaden. Sixty-five (29.5%) of sets had no bycatch at all. One to three species of bycatch appeared in 127 sets (57.8%). Only ten net sets (4.5%) had more than six species of bycatch. For the sake of this study, "herring-like" species such as Atlantic thread herring, Spanish sardines and scaled sardines were considered as bycatch, even though they are usually considered as part of the menhaden fishery.

By weight, bycatch species made up less than one percent (0.88%) of the catch in 1994. The top species of bycatch by weight were Atlantic croakers, sand (white) seatrout, silver seatrout, striped mullet, and spot. These five species made up almost 79% of the bycatch by weight. Three speckled trout and three redfish appeared in the 220 net set samples.

In 1995, 199 purse seine sets were sampled averaging 71,161 menhaden per set. Seventy-one (35.7%) of the sets had no bycatch. One to three bycatch species occurred in 88 sets (44%), while 14 sets (7.0%) had six or more species.

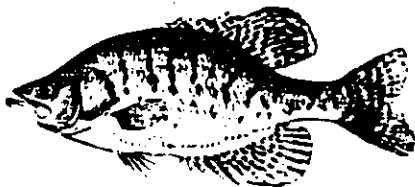
By weight, bycatch species made up 2.14% of the catch in 1995. The five, most common species of bycatch by weight (not counting cabbagehead jellyfish) were Atlantic croaker, sand seatrout, gafftopsail catfish, spot, and silver trout. The five species made up a little more than 75% of the weight of the bycatch. No redfish and only one speckled trout occurred in the 1995 samples. It should be noted that in both years, numbers of larger fish were released rather than pumped into the hold and some fish were kept by menhaden boat crew members for their personal consumption.

During sampling, two green sea turtles were observed in the net in 1994, both of which were released healthy. In 1995, two loggerhead and one hawksbill turtle were observed. All were released alive.

Sources: *Bycatch in the U.S. Gulf of Mexico Menhaden Fishery. Results of Onboard Sampling Conducted in the 1994 and 1995 Fishing Seasons.* Janaka de Silva and Richard Condrey. Coastal Fisheries Institute, CCEER, Louisiana State University. 1997. *Terms of Reference & Advisory Report for the Atlantic Menhaden Stock Assessment Peer Review.* Stock Assessment Report No. 99-01 of the Atlantic States Marine Fisheries Commission. 1998.

## CRAPPIE MANAGEMENT OPINIONS

Crappies consistently rank as the second most popular fish (behind bass) among Louisiana freshwater recreational fishermen. Crappie are also popular nationally, maybe too popular. With more and more people chasing crappie and with the increase in the number of crappie fishing tournaments, some states have taken steps to reduce daily limits and increase minimum sizes.



Louisiana still has a very generous bag limit of 50 per day and no minimum size for these fish, also known as "sac a lait" in south Louisiana and "white perch" in central and north Louisiana. Because of the growth in interest in crappie, the Louisiana Department of Wildlife and Fisheries requested and funded a survey of freshwater fishermen about crappie by LSU AgCenter scientists. The focus of the survey was the opinions of fishermen about the need for regulatory changes.

The survey was a voluntary statewide mail survey. A total of 2,298 people responded. They were asked to identify the species that they fished for most often. The

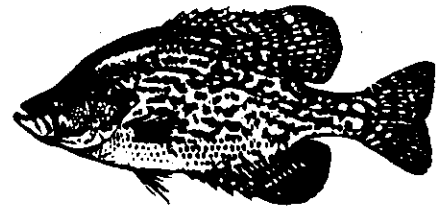
"other" category in the table below includes people who fished for anything that was biting as well as those that fished for species other than those listed.

Species	Number of Respondents	%
Largemouth Bass	985	42.9
Crappie	486	21.1
Catfish	252	11.0
Sunfish (breem)	233	10.1
Other	342	14.9

The fishermen in this survey were active fishermen, averaging over 19 fishing trips a year. For crappie anglers, an amazing 18.1% fished more than 40 days a year, the highest, by far, of any group. The survey also showed that many fishermen who fish primarily for other fish, will target crappie when the word gets out that crappie fishing is good. The survey also indicated that compared to other fish, crappie are still fished for more heavily for food than for sport.

Presently, Louisiana does not manage crappie with a minimum size limit. Fishermen in the survey were asked what minimum size crappie would they keep for food. Overall, for all anglers and for crappie specialists, 8 to 10 inches was the most chosen size, followed by 6 to 8 inches, and then 10 to 12 inches.

When asked what the most desired size was to keep for food, strong agreement was on 9 to 12 inch fish.



The anglers in the survey were then asked if they agreed with either a statewide or a lake-specific minimum size on crappies. Overall, 31% were against statewide and 30% were against lake-specific minimum size limits. Support for some minimum size limit was 47% for statewide and 44% for lake-specific size limits. Crappie anglers were the most opposed to crappie minimum size limits and bass anglers the most supportive.

The fishermen were then questioned about daily bag limits. When asked their opinion of the current 50 fish limit on crappie, 54% overall supported it, with strongest support coming from crappie fishermen at 64%. When asked if they would favor removal of the limit on crappie, 65% opposed doing so and 19% favored the idea. Anglers in the survey also did not support increasing the limit. Only 13% favored doing so and 62% were opposed.

When asked their opinion about decreasing the daily limit without giving a specific number, 49% were opposed and only 25% were in favor. A suggestion for a 35-fish limit gathered slightly more support at 32%, with 46% opposed. Crappie anglers were easily the group most opposed to any reduction in crappie daily bag limits, with 55% opposed to a 35 fish limit and 58% against any limit reduction.

Source: *The 2000 Louisiana Fishing Survey-Crappie*. William E. Kelso, Ross Hartfield and D. Allen Rutherford. LSU AgCenter 2001.

## **MORE ON CRAPPIE MANAGEMENT**

Crappie can be a much more difficult fish to manage with minimum size limits than largemouth bass. Crappie have a tendency to overpopulate. In years past, crappie management aimed at producing larger fish focused on liberal limits and even commercial harvest to reduce numbers of fish in a waterbody. Overfishing was not generally considered to be a potential problem.

Now with increased numbers of crappie fishermen fishing with better equipment, fisheries managers have begun looking at regulations, especially minimum size limits. An example of where a minimum size restriction seems to have worked is Arbuckle Reservoir, a 2,378 acre lake in south-central Oklahoma.

There, a 10-inch minimum size limit was put in place and biologists sampled both the fish population and fishermen's catches for 3 years after the regulation. The sampling showed that the crappie population there became to consist of older, larger fish than in pre-limit years. Also, angler harvest by weight, 3 years after the regulations, was better than in 5 of the 8 pre-limit years. Finally, interviews with anglers showed that they were satisfied with the results of the regulatory change.

Not all such attempts to improve crappie populations and harvests with minimum sizes and/or lower bag limits have been successful. On some lakes, regulations have been rolled back because the fishery failed to improve. Biologists using predictive models have found that improving the harvest by regulation is more the exception rather than the rule for crappie. They concluded that only under conditions of fast growth and low natural death rates would management with minimum size limits improve crappie populations. Even then, anglers would have to accept decreased harvest in numbers of fish to get an increased average weight.

Source: *Changes in Crappie Population Structure Following Restrictive Harvest Regulations*. Jeff Boxrucker. Proceedings of the 53<sup>rd</sup> Annual Conference, Southeastern Association of Fish and Wildlife Agencies. 1999.

## 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>		
28621	46870	JEFFERSON	29 11.040	89 29.010	PLAQUEMINES
			29 12.515	89 28.491	PLAQUEMINES
			29 16.241	89 57.376	JEFFERSON
			29 20.358	90 37.694	TERREBONNE
			29 24.949	90 58.073	TERREBONNE
			29 35.058	89 29.318	PLAQUEMINES
			29 39.158	89 50.176	PLAQUEMINES
			29 41.074	89 27.016	ST. BERNARD
			30 09.015	89 24.643	VERMILION

## THE FISHERMEN'S GEAR COMPENSATION FUND

The Louisiana Fishermen's Gear Compensation Fund can pay up to \$5000 per claim for underwater obstruction damage to gear and/or vessels owned by resident fishermen. To qualify, a claimant must prove with his most recent income tax return that he earned 50% or more of his income from commercial fishing and the damage incident must have occurred in Louisiana coastal zone waters. This includes state outside waters. Commercial fishermen are limited to two claims per fiscal year (July 1 - June 30).

### Filing a Claim

Commercial fishermen must call the Department of Natural Resources (DNR) at 225/342-0122, within 30 days of the incident to report the damage and request a claim form. It is best if the vessel captain is present to provide as many details as possible when the telephone call is made. The claim form must be completed, notarized and postmarked no later than 90 days from the date of the incident. Once DNR receives the claim form, an investigator will set up a date and time to meet with the fishermen making the claim.

### What Must be Included with a Claim

- 1) The claim form and the W-9 form must be completely filled out and notarized. No questions should be left blank.
- 2) The location of the obstruction must be provided with a LORAN-C reading, a GPS reading, or a marking on a National Ocean Survey Chart. DNR will provide a list of locations where a survey chart can be obtained.



- 3) A copy of the signed commercial fishing license must be included.
- 4) A copy of the Louisiana boat registration certificate or U.S. Coast Guard documentation papers must be included.
- 5) All witnesses, such as deckhands, must provide separate signed statements in their own words describing what happened. The statement must include the witness name, address, and telephone number, and must be notarized.
- 6) A copy of the claimant's last year's state and federal (Form 1040 and Schedule C) income tax return is needed. If incorporated, a copy of the state and federal corporate tax return must be included.
- 7) Estimates or receipts for repair or replacement of the damaged or lost items must be included. If drydock is needed for vessel hull damage, detailed drydock receipts are needed. For an outboard motor, the estimate or receipt must have the serial number of the motor on it.
- 8) For proof of ownership of the damaged or lost item, a receipt or bill of sale must be provided.
- 9) Photographs are required for claiming vessel or boat damage. Photographs of the registration number and name of the boat (if named) should be included as well as photographs of the damage.
- 10) A copy of the vessel and gear licenses for the year in which the incident took place is required.

## **COMMERCIAL VESSEL LICENSES**

Of all of the state licenses required of commercial fishermen, probably none causes more confusion than the vessel license. The license itself is inexpensive, \$15 for residents and \$60 for non-residents, but not having it when required is a serious violation.

The law requires that a vessel must be licensed whenever it is used in commercial fishing or whenever possessing fish for sale in the saltwater areas of the state. These are typically the waters south of the Intracoastal waterway (except in that part of Vermilion Parish between Forked Island and the Cameron/Vermilion Parish line, where the demarcation line follows LA Hwy 82, plus Lakes Maurepas, Pontchartrain and St. Catherine. Violations are written each year to commercial fishermen who normally work north of this line, but for one reason or another have gone below it without a vessel license.

Vessel licenses are issued in the name of the legal owner of the vessel. Unlike gear licenses, vessel licenses are non-transferable. Each vessel used in commercial fishing must be separately licensed, even if one fishermen owns several vessels, but only uses one at a time .

## DRIED SHRIMP

Louisiana has the oldest historical shrimp fishery in the gulf region. Before ice machines and freezers came into use, Louisiana fishermen harvested shrimp for canning and drying. Louisiana is unique in that it is the only state still harvesting shrimp for drying.

Sun-drying of shrimp was introduced by Chinese immigrants to San Francisco Bay in 1871. By 1873, the newcomers had extended the industry to the bays and estuaries of Louisiana. The industry was well established in 1885 when Yee Foo was issued Patent Number 310-811 for the process to sun-dry shrimp.



Although dried shrimp were first sent from Louisiana to Asian communities on the U.S. Pacific Coast, the state's abundant shrimp harvest soon allowed distribution to Asia, the Philippines, Hawaii, and to a lesser extent, the West Indies and South America.

Early records indicate that the first drying platform was built in Baratavia Bay at a site later called Cabinash. Later platforms were built in Atchafalaya, Baratavia, Caillou, Terrebonne, and Timbalier Bays. Early platforms were dominated by Asians, who made their home on the sites, supposedly to avoid trouble with immigration authorities. According to legend, large numbers were smuggled into Louisiana by commercial fishermen, who placed the aliens in barrels to bring them into the state unnoticed.

These platforms were built of cypress planks on hand-driven pilings 8 to 10 feet high, to allow air to circulate freely. After the shrimp were delivered to the platform they were boiled in saltwater and spread on the wooden platform. There, they dried for one day if the weather was hot and sunny, or several days under cloudy conditions. When rain threatened, they were covered with tarpaulins.

After drying, the heads and shells were removed by laborers who wrapped their shoes with cloths or sacks and tramped or "danced the shrimp." Small amounts could be flailed with a bundle of branches or a large homemade "flyswatter." The shrimp were next shaken on hardware cloth or poured from a height in a brisk wind to remove the loose hulls.

At its peak, an estimated 75 drying platforms existed in Louisiana. Probably the most well-known was Manila Village in Barataria Bay, which was large enough to have its own post office. As late as 1962, 23 driers still operated, but most were not on platforms. Time and weather had taken their toll. Many platforms were destroyed in the hurricane of 1915 and never rebuilt. Later hurricanes destroyed more, finally taking Manila Village in 1965

In the 1990s, between 6 and 10 processors still produced dried shrimp. All of these used indoor dehydrators and rotating-drum shell-hullers. It takes about eight pounds of fresh shrimp to produce one pound of dried shrimp. Louisiana dried shrimp are shipped to California, Hawaii, New York, and Canada as well as being available in-state. Interestingly, Louisiana has actually been importing some dried shrimp from Taiwan.

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## THE GUMBO POT

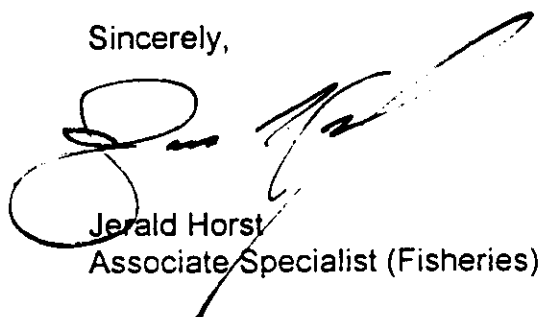
### Shrimp n' Shrooms

Shrimp and mushrooms go well together. This recipe marries to two tastes perfectly. It's also quick and easy to cook. Do not overcook it.

2	tbsp bell pepper, chopped	½	cup grated cheddar cheese
2	tbsp onion, chopped	¼	tsp pepper
1	4-oz can mushrooms	1	lb peeled shrimp
2	tbsp margarine	¼	cup dry bread crumbs
1	10¾-oz can condensed cream of mushroom soup	1	tbsp melted margarine

Saute bell pepper, onion and mushrooms in 2 tbsp of margarine until tender. Stir in mushroom soup, cheese and pepper. Heat, stirring constantly, until cheese melts. Add shrimp. Pour mixture into a well-greased one-quart casserole dish. Combine bread crumbs and melted margarine. Sprinkle over top of shrimp mixture. Bake in 400°F oven for 10 minutes or until thoroughly heated and crumbs are brown. Serve with a good bread to sop up the sauce. Serves 4

Sincerely,



Jerald Horst  
Associate Specialist (Fisheries)

This newsletter provided by,  
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