

Lagniappe



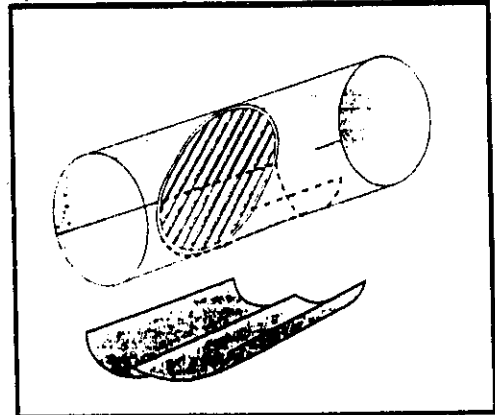
EXTENSION PROGRAMS
Agriculture and Forestry
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Natural Resources

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NEW T.E.D. FLAP DESIGN APPROVED

The National Marine Fisheries Service (NMFS) has approved a new flap modification for use on single grid turtle excluder devices (TEDs). The new design, called a "double cover flap", allows the use of 2 overlapping flaps over the TED opening. While the double cover flap was designed for use with bottom-shooting TEDs, it may also be used for top shooters.



The reason for the new design was that in some areas, primarily the south Atlantic and Texas, large leatherback sea turtles, the largest of the sea turtle species, were not escaping from standard TEDs. When NMFS required the seasonal use of larger TED openings in those areas, single large flaps were found to be not sealing the openings well enough to prevent shrimp loss. The double cover flap was designed to solve that problem. It may also be used on TEDs with the standard opening.

Currently, NMFS is proposing rules for the Gulf that would require the use of the larger approved leatherback opening in all trawls used off of Texas between March 1 and May 31 of each year. Shrimpers may get plans for the double cover flap by calling their local LSU AgCenter Sea Grant Marine Advisory Agent.

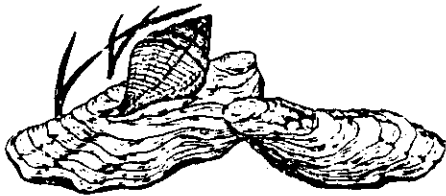
LICENSES ON THE INTERNET

The Louisiana Department of Wildlife and Fisheries has announced that, effective immediately, recreational fishing and hunting licenses can be purchased through the internet with a credit card. The website address is www.wlf.state.la.us. Both Visa and Mastercard will be accepted. There is a \$3 surcharge for this convenient option.



OYSTER DRUM AND OYSTERS

That black drum are powerful oyster predators has been known by both oyster farmers and biologists for many years. A Louisiana Department of Wildlife and Fisheries survey conducted in 1999 at the request of the state legislature indicated 55% of all oyster farmers have experienced losses to black drum, and that 26% of all seed oysters bedded on leases were lost to black drum.

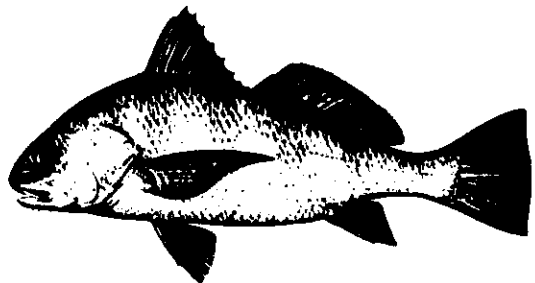


As a result, a fisheries researcher at Louisiana State University has been conducting research focused on using deterrents (scare methods) to keep black drum away from seed oysters on bedding grounds. The research, funded by the Louisiana Sea Grant Oyster Initiative Program, focused on the use of two deterrents, scent and sound.

A report on the first phase of the work, the research on scent, was made at the Louisiana Oyster Industry Convention in late March. That scent can affect fish behavior has been well documented. It seems that in many fish species when a fish is killed or injured it releases a chemical scent or pheromone into the water that alarms other fish of the same species.

Working under this theory, the researcher wanted to see if dead black drum carcasses deterred live drum from feeding on oysters. In laboratory experiments, small and medium-sized oysters were placed in 4 tanks with 2 black drum in each tank. In 2 of the tanks, a dead black drum was also added. In the tanks with the dead drum, the feeding rate on medium-sized oysters was reduced 25% and on small oysters it was reduced 30%.

The next step involved actual field tests on oyster leases that were freshly seeded in Grand Ecaille and Creole Bays. In each area, oysters were placed in trays. Some were placed close to a dead drum; others were placed without a dead drum. Here again, oyster predation was reduced by the presence of the drum carcass, from 8% to 31% depending on the site. The researcher did note that in spite of a significant reduction in drum predation overall, on some days it worked and on some days it didn't. His final conclusion was that scent may work as a deterrent. Phase two of his research will involve the use of sound as a deterrent, under



the theory that black drum in the wild use sound to scare other black drum away that may compete with them for food.

Source: *Black Drum Deterrence Study Update*. Presented at the Louisiana Oyster Industry Convention, March, 2001. Charles Ramcharan. LSU Biological Sciences.

NEW FEDERAL CHARTER PERMIT

The National Marine Fisheries Service (NMFS) has announced that, effective July 1, Atlantic and Gulf charter/headboat vessels that fish for highly migratory species (tuna, swordfish, billfish or sharks) must purchase a new Atlantic HMS Charter/Headboat Permit. The purpose of this new permit is to assist in collection of data on these fisheries. It replaces the Tuna Permit for charter and headboats.

Charter vessel owners and operators can purchase the mandatory Charter/Headboat Permit online at <http://www.nmfspermits.com> or they can get an application by calling 888-872-8862. The 2001 Atlantic HMS Charter/Headboat Permit costs \$27 and will be valid from the date issued through May 31, 2002.

This new permit has been in the works since mid-1999, but was held up by the need for approval from the US Office of Management and Budget. Approval was granted in August, 2000, but NMFS did not make the regulation effective in the middle of the fishing year to avoid confusion among permit holders.

MISSISSIPPI RIVER COMMERCIAL FISHING NAVIGATION

The U.S. Coast Guard is overseeing the installation of a state-of-the-art automatic vessel identification system in the lower Mississippi River and the Port of New Orleans. The backbone of this system, designed to improve safety and navigation, is a requirement for each vessel in this area to carry a transponder that automatically and constantly sends a signal broadcasting the vessel's location and identification. A transponder costs approximately \$5000.

The Coast Guard has formed an advisory group, the Lower Mississippi River Vessel Traffic Service (VTS) Committee, made up of navigation, piloting and shipping interests, to assist them in putting the system in place. The VTS Committee has identified what they see as a major problem in the system. Under a 1972 law, commercial fishing vessels under 300 gross tons and recreational vessels 65 feet long or less are exempted by law from being required to carry a transponder.

The three river pilot groups on the committee feel that this represents a great danger to river shipping, and at the June VTS meeting suggested changing federal law to

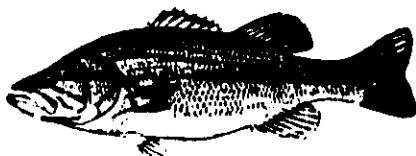
require commercial fishing vessels over 40 feet long to carry a transponder to navigate or cross the river between Southwest Pass and the Harvey Locks.

Coast Guard officials feel that the problem may be eased by education and communication, however, no one representing the fishing industry is on the VTS Committee. They have requested the LSU AgCenter Marine Advisory Program to identify commercial fishermen willing to temporarily sit with or on the VTS Committee to help solve these problems.

Fishermen willing to volunteer their help may call LSU AgCenter Fisheries Specialist Jerald Horst at 504/349-8853. Oyster vessels often cross the river between seed and bedding grounds and many shrimpers, especially Vietnamese shrimpers, navigate the area between Southwest Pass and Venice.

LMBV

When large numbers of largemouth bass began dying in the Atchafalaya Basin several years ago, fisheries biologists were stumped at first. While the kill occurred during hot weather, it wasn't a low-oxygen kill, the usual suspect during the summer. Only bass died, not oxygen-sensitive fish such as shad. Results of analyses conducted on the dying fish showed that they were infected with the largemouth bass virus (LMBV).



According to Auburn University Scientist John Grizzle, LMBV is one of more than 100 naturally occurring viruses that affect fish, but not warm-blooded animals. Its origin is unknown, but it is related to a virus found in frogs and other amphibians and nearly identical to a virus isolated in fish imported into the U.S. for the aquarium trade. The virus can be carried by other fish species but seems to only kill largemouth bass. Since 1995, LMBV has been found in 15 states, all of them in the south except for Michigan.

Much about LMBV is still a mystery, including how it moves from lake to lake. Fish-eating birds and fishermen are the suspects, as researchers have found that the virus can stay alive in water for at least three or four hours. Many bass infected with LMBV appear completely normal. In those cases where the virus has triggered the disease, dying fish will be near the surface and have trouble swimming and remaining upright. That's because LMBV seems to attack the swim bladder.

The LMBV virus appears to be widespread. Texas state fisheries biologists, with the help of bass anglers, sampled bass for the virus in 49 of the state's lakes in 2000. The

virus was confirmed in fish in 14 of the lakes. In those lakes, only 5% of the fish tested positive, although in Lake Fork, maybe the state's most famous bass lake, 50% of the bass tested positive.

Louisiana's Department of Wildlife and Fisheries (LDWF) has also been sampling for the virus. According to LDWF biologist Mike Walker, largemouth bass populations in the water bodies below have been sampled in the last two years.

1999 Sampling		2000 Sampling	
<u>Water Body</u>	<u>Results</u>	<u>Water Body</u>	<u>Results</u>
Toledo Bend	positive	Henderson	positive
Red River	negative	Mississippi River/ Barge Canal	negative
Bundicks Lake	positive	Atchafalaya Basin/ Ramah	positive
Caney Lake	negative	False River	positive
Amite/Blind River	negative	Lake D'Arbonne	positive
Atchafalaya Basin	positive		

Biologists still don't know what makes the viruses suddenly turn from just being detectable into a deadly disease. LDWF biologist Gary Tilyou agrees with other scientists, however, in that LMBV outbreaks are not likely to become catastrophic. Tilyou has observed that areas with LMBV kills one year usually don't have kills the next year. Tilyou noted that they have found no difference in LMBV susceptibility between Florida-strain bass and Louisiana native northern-strain bass. As in other areas, LMBV seems to kill the larger bass in the population. Following some kills, fishermen have reported catching fewer bass, especially bigger fish, but most fisheries do seem to recover in a year or two.

FLOUNDERING AROUND

Flounders are popular commercial and recreational fish in Louisiana. In spite of this popularity, very few fishermen deliberately fish for flounders. Most commercial landings come from shrimp trawls. Most of the recreational catch is taken a few fish at a time by fishermen chasing redfish and speckled trout.



Southern flounders are fish that are difficult for most fishermen to pattern, seeming to be here today and gone tomorrow. But there are indeed patterns to the behavior of this fish and an understanding of its biology can improve catches.

Male and female flounder are almost like two different fish. Males grow slower and have a short lifespan, almost never living over 3 years old and growing over 14 inches

long. Females live longer and can grow to 28 inches long. Also, after their first year of life, males live mostly in offshore waters. This means that while offshore shrimp trawlers catch some male flounders, most of the recreational and commercial inshore catch consists of females.

Flounder, both male and female, spend their first year after hatching in shallow, low salinity estuary or even river waters. Southern flounders have been caught over 100 miles from the coast, up freshwater rivers. As they grow, they tend to use slightly deeper waters, but still within inshore estuaries.

As temperatures cool in the fall, mature flounders move to the lower portions of the estuaries near the Gulf of Mexico where they stage in large numbers. Between mid-October and mid-November they begin a mass migration into Gulf offshore waters to spawn. This migration can be slow if water temperatures gradually cool or it can happen all at once with the passage of a strong cold front. Between this period and February/March, very few large flounders are found inshore.

Once offshore, spawning activities take place between November and January, with a peak in December. Each female will spawn several times over a period of less than two weeks, producing eggs that float with ocean currents. After spawning, the females move back into the estuaries, but males will stay offshore for the rest of their lives. After hatching and early development, the young flounders under two inches long begin appearing in inshore estuaries between January and April to start the cycle over again.

The seasonal spawning movement cycle is the key to understanding flounder biology. Tagging studies in several southeastern states indicate that between spawning migrations, flounders move only short distances, usually within the same bay systems. The spawning migration, however, reshuffles the deck and some flounders move considerable distances. A Georgia study showed maximum movement of 334 miles. South Carolina research showed 243 miles. One North Carolina study had a flounder move 257 miles and another 444 miles. In the last study, a flounder moved 387 miles in 131 days, which is an average of 3 miles a day.

Source: *The Flounder Fishery of the Gulf of Mexico, United States: A Regional Management Plan*. Gulf States Marine Fisheries Commission. 2000

TOO SICK TO DIE

"First you think you're going to die. Then you're afraid you won't." That just about describes the serious misery of seasickness. It is estimated that about a third of the population is very susceptible to motion sickness. Even full-time professional fishermen get it.

For these people, it starts when the balance center of the inner ear, being tossed about by the movement of a boat, sends signals to the brain that don't agree with those being sent by the eyes. The inner ear says movement is going one way, the eyes say it is going another.

This contradiction causes a confusion known as motion sickness. First, a person feels a little queasy and dizzy. Sweating usually begins. If you're lucky it might stop there, if not, you turn white, develop heavy cold sweats and a headache. Nausea develops.

Then it gets bad. Nausea turns into violent vomiting. Muscles get mushy, dizziness is so bad that standing or even sitting is impossible. Even hallucinations can occur. Most people aren't lucky enough to pass out.

A lot of seasickness preventions have been tried over the years. In their simplest forms they involve changing behavior or diet. Some sufferers of seasickness swear that a full night of sleep and a non-greasy diet the day before going to sea are all they need.

Other "natural" remedies that supposedly work are eating honey, ground pumpkin seeds, cayenne pepper, or ginger. Indeed ginger root has been shown to be effective if 1-4 grams (less than a tenth of an ounce) of powdered ginger is taken 12-24 hours before going offshore. Ginger is an anti-emetic which soothes nausea. But herbs, like almost any seasickness remedy, work for some people, but not others.

Likewise with acupuncture wristbands. These elastic bands are supposed to work by putting pressure on a nerve point inside of the wrist. This sends a message to the brain, blocking the brain-confusing signals from the inner ear and the eyes.

Of course, there are medications, both over-the-counter and prescribed. Most people choose one of the over-the-counter medications. The most common of these are antihistamines, including dimenhydrinate (Dramamine), meclizine (Bonine and Dramamine II), and diphenhydramine (Benadryl). A combination remedy, Phenergan contains both an antihistamine (promethazine) and an anti-emetic (phenothiazine). Antihistamines dilate blood vessels which seems to blunt the effects of the rocking and rolling on the inner ear, at least for some people.

Of the prescription medications, the best known and most prescribed is scopolamine in the form of Trans-derm Scop. The scopolamine is contained in an adhesive patch. The drug is gradually released through the skin when the patch is stuck to the skin, usually behind an ear.

The drug is highly effective for most people but can have side effects. It can make some people sleepy and others thirsty. It is also not for use by people who have kidney problems, the reason it is only dispensed by prescription.

One drawback in the use of all of the discussed medications is that they are only effective if taken 12-24 hours before going out. Two fairly new products on the market are promising quick relief.

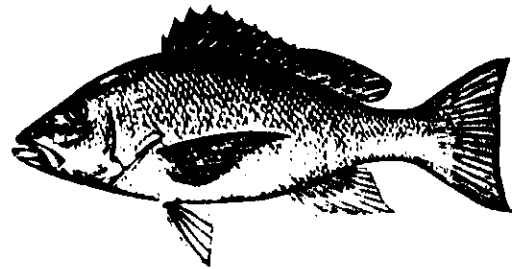
Vitamotion is a spray containing ginger, dimenhydrinate and vitamin B-6. A person is dosed by spraying the product onto the lining of his mouth. There, the many capillaries take the medication into the blood stream almost immediately. This product is available over the counter.

The other product, ReliefBand, is a battery-powered aid resembling a wristwatch. The band releases three electronic impulses per minute which stimulate nerves that sooth the erratic stomach caused by seasickness. The ReliefBand is positioned under the wrist between the two large tendons. At the highest of five settings, a person can actually feel the electrical impulses sent my the band. Once available only by prescription, this device was approved for over-the-counter sale in 1999. ReliefBand makers even promote the band as a cure for morning sickness and chemotherapy-induced morning sickness.

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RED SNAPPER MOVEMENT RESEARCH

Red snappers are most commonly viewed as being territorial fish. They are supposed to find a hard bottom area or reef, natural or man-made, hunker down and usually spend their lives there. In an attempt to determine just how much red snappers do move around, university researchers conducted a large study in the artificial reef area off of the coast of Alabama.



Within this 1,243 square mile area, were an estimated 20,000 large and small man-made reefs. Most of them are small, privately created structures that people tend to view as their private property, even though legally anyone can fish on them, if they can find them. The researchers made 28 trips over a three year period to 9 reefs within the area. The sites were in water depths of 68 to 101 feet.

The researchers caught and tagged 2932 red snappers. Of these, 2053 were tagged and immediately released where they were caught. The other 879 fish were tagged

and moved to other areas before release to see if they would return to the area of tagging. Eighty-five percent of the red snappers tagged and released were under 16 inches long and less than three years old. A total of 550 tagged fish were caught again, including several that were caught twice and one the was caught three times.

The results of this study were quite interesting. They indicated that red snappers, at least in the sizes tagged in the study, move around much more than previously thought. Only about 26% of the fish tagged would be in the same place one year later. The average tagged fish moved 18.6 miles at a average speed of 244 feet per day.

During the study period two hurricanes, Opal and Georges, passed very near the study area. Tagged fish were found to move much further and faster during hurricanes than during normal weather periods. Although one red snapper moved from off of Alabama to offshore of Fourchon, Louisiana, almost all movement was to the east. The longest distance moved to the east was almost 219 miles.

Fish that were caught in one area, tagged and then moved to another area before release showed no tendency to move back to the area they came from. Although most of the fish tagged were relatively small, the study showed no relation between the size of the fish and the distance they moved. Overall, the longer that the fish was at liberty after tagging, the greater the distance the fish moved.

This research study showed the greatest movement of any study done on red snapper. If red snapper do indeed move as much as this study indicates, marine protected areas (MPAs) would have to be larger than originally thought so as to provide protection for the fish during its entire life cycle.

Source: *Site Fidelity and Velocity of Movement of Tagged Red Snapper, Lutianus campechanus, in the Northern Gulf of Mexico.* W. Patterson, J. Cowan and R. Shipp. Gulf of Mexico Fish and Fisheries: Bringing Together New and Recent Research. U.S. Department of the Interior, Minerals Management Service. October, 2000.

SEAFOOD HEALTH BENEFITS

It was over 10 years ago that the health benefits of eating fish and shellfish first made big headlines. Researchers found that native American Inuit (Eskimos) who ate marine-based diets suffered very little heart disease. The "magic bullet" was found to be the omega-3 fatty acids found in all fish and shellfish, but especially fattier fish such as salmon, tuna, sardines and freshwater eels.

Omega-3 fatty acids have been shown to protect against heart disease by preventing the formation of blood clots, preventing deadly heartbeat abnormalities, slowing artery blockage, and lowering triglyceride levels. Research project after research project has shown the risk of heart attack to be lower for men and women that eat seafood at least once a week. Now research is showing other health benefits from seafood consumption.

Psychiatric Illness. Higher consumption of omega-3's may lower the risk of depression and cause a better response to treatment for manic depression and schizophrenia. The anti-inflammatory properties of omega-3's may also reduce the activity of the immune system that is thought to lead to Alzheimer's disease.

Some Cancers. A high level of omega-3 fatty acids may protect against breast cancer. Omega-3's may help healthy cells resist damage by tumor producing cells and by interfering with tumor growth and spread.

Arthritis. Consumption of omega-3's has been associated with lower rheumatoid arthritis risk.

Diabetes. Omega-3's may prevent the onset of diabetes, control its symptoms, and help manage complications.

Infant Development. As babies grow, their brains and nervous systems accumulate the omega-3 fatty acid DHA for building brain tissue, nerves, and the retina of the eyes. Regular seafood consumption during pregnancy can also reduce the chance of premature birth and increase baby birth weight.

Source: *Health Forum: Sell the many Benefits of Lifelong Benefits of Omega-3's.*
Evie Hansen. Seafood Business. May, 2001.

LOCAL FISHERIES MEETINGS

Kevin Savoie, the LSU AgCenter Sea Grant Marine Advisory Agent for Cameron and Calcasieu Parishes has scheduled two meetings of interest for local fishermen.

Trophy Trout Management: Pros & Cons

Wednesday, July 25

6 p.m.

Calcasieu Parish Cooperative Extension Service Office
7101 Gulf Hwy, Lake Charles, LA

Management for larger sized speckled trout is a subject of interest for area recreational fishermen. Basic trout biology and the pros and cons of management for larger fish will be discussed.

New Fisheries Laws
 Thursday, July 26
 1 p.m.
 Police Jury Annex, Cameron, LA

The subject of this meeting will be a complete discussion of all new fisheries and fisheries-related laws that were passed by the 2001 Regular Session of the Louisiana Legislature.

Both meetings are free and open to the public.

THE GUMBO POT

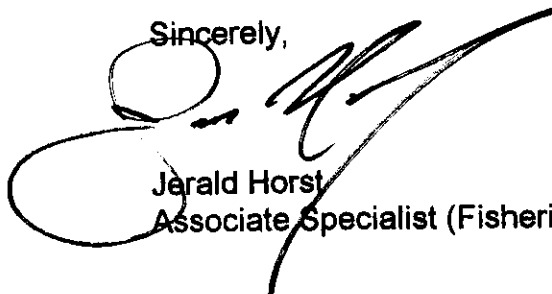
Spicy Oyster Pie

A good oyster pie is hard to beat. This one is very good, but you better like seasoning. It wasn't too peppery for me though; I loved it.

½	cup all-purpose flour	½	cup bell pepper, chopped
¾	cup milk	¼	cup parsley, chopped
1	pint oysters	1	tsp black pepper
2	stalks celery, chopped	1	tsp red pepper
1	small garlic, minced	1	tsp salt
		1	9" pie shell, top and bottom

Brown flour in a black iron skillet until it gets brown. Add milk. Stir well. Drain liquid from oysters and add oysters to the skillet. Cook 15 minutes or until oysters have become firm. If mixture is too thick, add oyster liquid. Add chopped ingredients and seasonings. Add salt last to prevent curdling the milk. Place oyster mixture in unbaked pie shell and cover with top crust. Start pie at 450 degrees and cook for 15 minutes. Reduce heat to 350 degrees and continue to cook until brown. Serves 4

Sincerely,



Jerald Horst
 Associate Specialist (Fisheries)