

Lagniappe



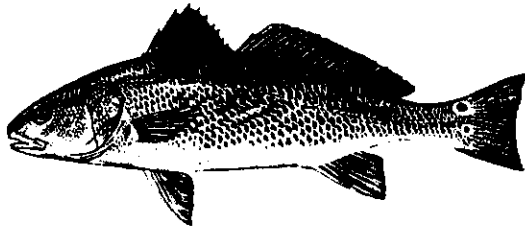
EXTENSION PROGRAMS
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RED DRUM CONUNDRUM

The redfish fishery in the federal waters of the Exclusive Economic Zone (EEZ) has been totally closed since they were declared to be overfished in the 1980s. Redfish spend the first few years of their life in inshore estuaries. As they approach maturity they move to offshore waters, where they spend the rest of their long lives in schools. This movement is called "escapement".



Since the federal closure and the creation of much tighter regulations in state waters, redfish populations have rebounded. The question is how much. State management agencies monitor inshore stocks and studies have been conducted on inshore catches. Unfortunately, with the federal closure, very few adult redfish from offshore schools have been

sampled, so very little scientific data exists on these fish. If the fishery has recovered from overfishing, the National Marine Fisheries Service (NMFS) must open the fishery. Present data is conflicting. Research from Louisiana and Florida indicates that escapement levels are very high and that redfish stocks in the Gulf of Mexico are recovered. The limited data from NMFS' most recent study is inconclusive.

Two years ago NMFS conducted an offshore sampling effort using purse seines. Because of study design problems, the results are considered unreliable. Now NMFS has put together another effort, one that will gather offshore fish by hook and line through chartered recreational and commercial vessels.

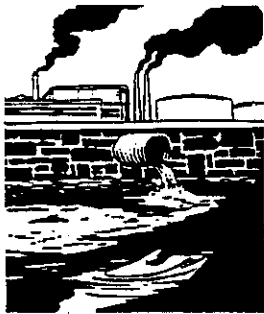
The plan is to use the vessels to take 20-30 fish per school, from as many schools as can be located between now and the end of the year. Otoliths (ear bones) will be removed from these fish, cross-sectioned and the yearly growth rings counted. The goal is to get 800-1000 otoliths from redfish from the area between the Florida panhandle and the northeast coast of Texas. From these otoliths, the age breakdown of the population can be determined.



Hook and line vessels will be paid \$1000 per day, with a \$20 per fish bonus (up to \$500) for each redfish collected after the first 25. Each vessel will have a NMFS representative on board and the vessel must have overnight accommodations for the NMFS person. Each vessel will be contracted for up to 5 fishing days during a 20-day period. If 20-30 redfish are taken from a spot, the NMFS representative will instruct the vessel operator to move to another school in a different area. After the otoliths are removed, the redfish will be donated to local food charities. No bycatch may be kept while the vessel is under contract.

MARINE WATER POLLUTION REPORT

Water pollution has no friends among fishermen, who have long recognized the threat of pollution to fish populations. A comprehensive report on marine water pollution released at the end of 2001 by the Pew Oceans Commission points out that the face of water pollution has changed. Water pollution is still most commonly thought of as occurring by a pipe discharging liquid chemicals from a manufacturing plant or sewage from a city, directly into rivers, lakes and bays. The new report points out that while some of this still does occur, most water pollution now results from discharges into the air which in turn are deposited into the water, and from activities on land, which later get to the water by runoff.



Major reductions in industrial and sewage pollution began with the passage of the Federal Water Pollution Control Act in 1972, which was reauthorized as the Clean Water Act in 1987. Since then, dramatic reductions in pollution discharges from industries, including oil and gas production, refineries, chemical manufacturing, electric-power plants, and food processing, have occurred. City sewage treatment plant discharges have also improved, although not as much as industrial discharges. The Clean Water Act forces sewage treatment plants to reach at least "secondary" levels of water treatment. This removes 85% of the organic and solid material, but only one-third of the dissolved nitrogen and phosphorus. These two elements serve as nutrients or plant food for algae, and are a major cause of overenrichment of natural waters (eutrophication) that can result in low-oxygen or no-oxygen areas.

Before the 1970's, the transportation of city garbage, industrial chemicals and waste, sewage sludge, and construction debris offshore for dumping into the ocean was common. Laws and treaties slowed this practice. Finally, in 1988, Congress passed the Ocean Dumping Ban Act which stopped the practice. Today, almost the only "ocean dumping" is the disposal of dredge sediment. About 5-10% of dredge sediments are classified as being contaminated by pollution. These sediments are placed in landfills or in special confined or contained sites.

The report mentions two other sources of direct pollution—aquaculture and vessel discharges. Pollution from aquaculture includes uneaten fish food, fish wastes, pesticides, antibiotics, hormones, and food additives. These can affect native fish populations, and habitat, especially under and near net pens or other aquaculture facilities.

Pollutants such as sewage, garbage, and bilge waters are discharged into the sea by vessels. Cruise ships operate in confined harbors in the Caribbean islands or pristine waters such as Alaska's inland passages. They generate sewage, gray water, garbage, oily wastes, and waste from photo processors, swimming pools and dry cleaning. Ocean-going vessels burn large quantities of fuel. Their engine exhausts are estimated to produce 14% of the emissions of nitrogen from fossil fuels and 16% of the emissions of sulphur from oil use into the world's atmosphere.

The report also discussed what are known as "legacy contaminants." These are pollutants released into the environment in the past, that humans will have to deal with for decades or even centuries after their release into the environment has stopped. They include metals such as cadmium, copper, lead, and mercury, pesticides such as DDT and tributyltin, industrial chemicals such as PCBs and tetrachlorobenzene, and industrial and combustion by-products such as dioxins and PAHs. Most of these accumulate in animal flesh, and concentrations levels often increase further up the food chain. These pollutants often accumulate in sediments. Options for their management there include leaving them in place to degrade or be buried further, capping them with clean sediments, treating them in place, or removing them for treatment or storage elsewhere.

The report concludes that hard-to-pinpoint sources of pollution such as land runoff or deposit from the atmosphere now cause the most serious water quality problems. Atmospheric pollutants can spread far from where they were released. Their fallout from the atmosphere is recognized as an important source of several major pollutants including nitrogen, lead, mercury, DDT, and PCBs. Land runoff contributes pollutants in several ways. They can be dissolved in the runoff water or they can be on sediment washed off of the land by runoff. Even without other pollutants, sediment itself is considered a pollutant, silting up fish habitat, smothering up bottom life, and reducing water clarity.

The report zeros in on nutrient pollution as the big challenge of the next few years. The nutrients are nitrogen and phosphorus. Both elements are important for plant growth, so important that the two, along with potassium, are the main ingredients in fertilizers. However, too much of them in the wrong place can have negative effects by creating overenrichment of the waters. Human activities are estimated to have tripled the flow of phosphorus into the world's oceans and increased the amount of nitrogen to U.S. coastal waters by 4 to 8 times.

Overenrichment can cause unnaturally heavy growths (blooms) of microscopic floating algae. When these blooms die, the decay of the algae can rob the water of oxygen, especially near the bottom. This seems to be the case with the "dead zone", located in Gulf of Mexico waters offshore of Louisiana. Overenrichment not only affects how fast plants grow, it can determine which plants grow.

Algae blooms can smother or shade-out marine grasses. Also, corals normally have algae growing inside their tissue. Algae blooms in the water can shade the algae in the corals, which stresses the coral. Not only can overenrichment increase the amount of algae growth in the water, it can change the kind of algae that thrive, away from those species normally found in an area to harmful species. Some harmful algae blooms kill fish and other marine life, and a few can sicken or kill humans. The report does caution, however, that not all harmful algae blooms are caused by overenrichment.

Finally, overenrichment, combined with very heavy fishing, can change fish populations away from bottomfish and predator fish that people desire, towards smaller, boney, open-water species. In the worst cases, fish populations can almost disappear, leaving nothing but jellyfish in their place.



Fertilizers applied to crops on land, are most heavily blamed for the increased amounts of nitrogen in the ecosystem. Nitrogen not used by the crop plants can be carried away by runoff water, ending up in lakes, bays and seawater. However, there are many other sources of nitrogen, including runoff from fertilized lawns and home gardens, animal wastes, discharges from sewage treatment plants, ineffective septic systems, and the burning of oil, gas and coal fuels.

While worldwide, the addition of nitrogen into ecosystems is increasing rapidly, the amount of nitrogen being added to U.S. coastal waters is stable or only increasing slightly, and the addition of phosphorus is stable or declining. The use of chemical fertilizers has nearly leveled off since the early 1980s and pollution controls have stopped the increase in releases of nitrogen from vehicles and power plants.

Both nitrogen and phosphorus inputs are increasing in some parts of the country, where intensive animal-feeding operations lots are growing and where human populations are increasing. While the number of livestock animals in the U.S. hasn't increased much, more of them are in intensive animal feeding operations. These have more runoff problems than traditional agriculture has. Increasing human populations in coastal areas not only create more sewage, urban sprawl, with its paved roads and parking lots, increases the percentage of rainfall that runs off of the land.

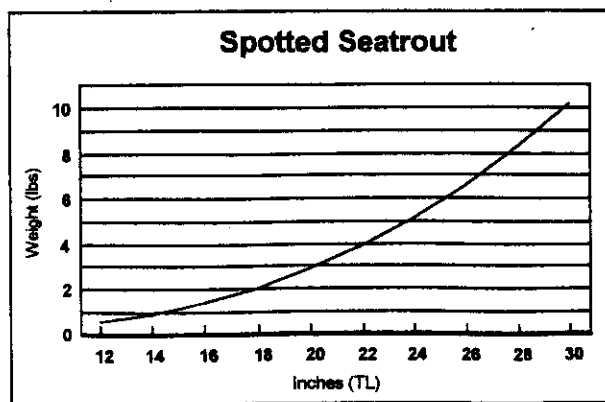
Overall, the report is not negative. It does not predict runaway increases in nutrient pollution like it said occurred between 1960 and 1990. Lowering nutrient inputs, it says, will be more difficult than controlling direct discharges of other pollutants, but it can be done effectively.

Source: *Marine Pollution in the United States: Significant Accomplishments, Future Challenges*. Donald F. Boesch, Richard H. Burroughs, Joel E. Baker, Robert P. Mason, Christopher L. Rowe, and Ronald L. Siefert. Pew Oceans Commission. 2001.

TROUT WEIGHT BY LENGTH

At the recent Louisiana Sportsmen's Show, one of our readers asked that we publish a length-weight table for speckled trout. By simply measuring the length of the trout, an angler can get a relatively good idea of the weight of the fish without weighing it. Randy Pausina, Finfish Programs Manager with the Louisiana Department of Wildlife and Fisheries supplied the numbers in the table on the right. The numbers are averages. About 8 to 10 hours before a female trout spawns, her eggs hydrate. This means that her eggs swell greatly with water, increase in size and weight several times, and become bright orange. Females with hydrated eggs weigh more than other trout.

Inches Long	Pounds Weight
12	0.6
13	0.7
14	0.9
15	1.1
16	1.4
17	1.7
18	2.0
19	2.4
20	2.8
21	3.3
22	3.8
23	4.4
24	5.1
25	5.7
26	6.5
27	7.3
28	8.2
29	9.2
30	10.2
31	11.3
32	12.5
33	13.8



KEEPING UP WITH SHRIMP SEASON

Each spring and fall, the opening of shrimp season is the talk of the bayou. The closing of shrimp season causes even more talk, because it is often on short notice, especially for brown shrimp. Fishermen who don't want to rely on word-of-mouth make telephone calls and often get a busy signal. Now those fishermen with internet access can find what they need at the touch of their fingers at the Louisiana Department of Wildlife and Fisheries website www.wlf.state.la.us. When the page appears, simply click on "News & Events", which is found under the big header ABOUT LDWF. This is a good site to save on your computer as a favorite.

TRAWLING IMPACT STUDY

In recent years, the use of bottom trawls by the commercial fishing industry has come under intense criticism. Some environmental organizations maintain that bottom trawls crush and bury everything in their path, often comparing trawling to clear-cutting old-growth forests. Trawlers, on the other hand, are often heard to say that their trawling activity is good for the ecosystem, seeing themselves as similar to farmers tilling the land, comparing their boat to a tractor and their trawl to a plow. Recognizing that the issue wasn't likely to go away by itself, researchers from the University of North Carolina at Wilmington conducted a two year study of the effects of trawling in North Carolina inshore waters.



The research, funded by the North Carolina Fishery Resource Grant Program was done in the Pamlico River estuary. The fisheries of the area and the habitat are very similar to those of coastal Louisiana, being mainly mud and sandy bottoms. Six areas were studied, 3 that were closed to trawling and 3 that were open and actively trawled. The researchers compared the bottom life in the areas closed to trawling to that of nearby areas that were open. This was to determine the long-term effect of trawling. Next, they studied the bottom life in areas closed to trawling, then they trawled the exact same spot, and then restudied the spots again right after trawling, in order to determine the short-term effects of trawling. GPS was used to be sure that the same exact spots were used. The research was done in March, May, June and November, 1999 and April, May, and August, 2000.

Analysis of the bottom sediments showed that the most common living things were microscopic algae, various types of worms, and several kinds of small clams and crustaceans. All of these served as food items for larger, more valuable species. Microalgae was especially common in untrawled areas, which were sandier. Muddy

bottoms had much lower concentrations of microalgae, in general. The before and after experimental trawling had no effect on the microalgae. The researchers concluded that light, nutrients and bottom type affect microalgae much more than trawling.

The numbers of small worms, clams and crustaceans also did not seem to be affected by trawling. They were about the same in trawled and untrawled areas and did not change much before and after experimental trawling. The biggest variations in the number of bottom animals occurred from season to season, and between the two years of the study.

The overall conclusion of the researchers is that on these types of bottoms, the mechanical effects of trawls neither harms nor cultivates the growth of small bottom creatures to any great degree. They noted that this shouldn't be terribly surprising, since storms, including hurricanes, disturb the bottom more frequently and powerfully than any human activity.

Source: *Trawling Impacts on Soft Bottom Organisms*. Lawrence Cahoon, Martin Posey, Troy Alphin. Department of Biological Sciences and Center for Marine Science. University of North Carolina Wilmington 2002.

WILDLIFE FEDERATION RESOLUTIONS

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

- ★ Resolution 2B, urges and requests agencies to develop a poster illustrating protected fresh and saltwater species which may not be taken.
- ★ Resolution 9F, supports the creation of a tax incentive for shrimp trawlers who use turtle excluder and bycatch reduction devices.
- ★ Resolution 10B, expresses opposition to provisions in HR 2570, the bill to reauthorize the Magnuson Act. The bill directs the National Marine Fisheries Service (NMFS) to avoid bycatch in fisheries rather than minimize it, likely exposing NMFS to lawsuits. Also opposed is a provision in the bill that would require fishery management council membership to be equally divided up 3 ways, between sport and commercial fishermen and environmental group representatives, instead of being divided 2 ways, between sports and commercial fishing.

- ★ Resolution 11E, opposes the changes to turtle excluder device (TED) regulations being proposed by NMFS.
- ★ Resolution 12B, requests the Invasive Species Task Force to become more active on aquatic plant control and supports more funding, especially for hydrilla and giant salvinia control.
- ★ Resolution 14D, urges the state of Louisiana to buy "Elmer's Island", the coastal area near Grand Isle, known for its surf fishing.
- ★ Resolution 15E, urges the Louisiana Legislature to adopt legislation to create a constitutional amendment that would guarantee the freedom to hunt, fish and trap.
- ★ Resolution 17B, urges fishermen not to transfer largemouth bass from one waterbody to another, to help prevent the spread of the largemouth bass virus and other diseases.
- ★ Resolution 18C, supports the development of a state management plan for exotic (non-native) species.
- ★ Resolution 19C, urges that standards be set and enforced on mercury emissions from coal-fired power plants and other sources to prevent the contamination of fish.
- ★ Resolution 21B, urges the offshore oil and gas industry to stop discharging waste that contains mercury and the chemicals that can contaminate fish. Also requests the U.S. Minerals Management Service (MMS) to further assess the issue of oilfield discharges and mercury in fish and if MMS cannot in two years conclusively show that there is no problem, they should prevent of discharge of fluids from offshore oil and gas facilities.

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. & Long. Sites</u>		
28527	46855	PLAQUEMINES		
		29 14.055	89 23.505	PLAQUEMINES
		29 15.033	90 42.131	TERREBONNE
		29 26.200	90 33.900	TERREBONNE
		29 30.575	90 06.742	JEFFERSON
		20 40.010	92 54.020	CAMERON
		29 42.864	93 04.435	CAMERON
		29 45.751	93 09.300	CAMERON

FACE-OFF OVER FISHING

The disagreement between recreational fishermen and environmental interests over marine reserves (or marine protected areas, as they are also called) is heating up. Sportfishing interests have spurred the introduction of "The Freedom to Fish Act" in the U.S. House of Representatives. It's introduction into the House by Rep. Collin Peterson of Minnesota now pairs it up with The Freedom to Fish Act introduced into the Senate last August.

"This attempt to limit our access to public resources to fish has us concerned," said Forbes Darby, a spokesman for the American Sportfishing Association, which lobbied hard for the legislation. Darby said 2,700 jobs, \$100 million in retail sales and \$13 million in tax revenues would be lost if fishing were abolished from places like the Channel Islands, off the coast of California. "There are 50 million anglers out there and they're getting really energized about this issue," Darby added.

Environmentalists reply that recreational anglers are overreacting. "We think they're shooting themselves in the foot," said Kate Wing, ocean policy analyst for the National Resources Defense Council. "Marine reserves are one of the only places that have been shown to bring back species of fish. There is no question that commercial fishing has caused damage, but in certain areas species have been hurt more by recreational fishing."

"I know it's an emotional issue," she said. "We hope to spend time to educate people and get them involved so that they can understand and support it. These bills (Freedom to Fish Act) are in some ways, a knee-jerk reaction."

Recreational fishing leadership disagrees. "Marine anglers, no matter where they go, already have restrictions," said Darby. "It's not a free-for-all once you get to these sanctuaries. Keeping everyone out is not going to solve the problem," he said.

Meanwhile the Bush Administration has directed federal agencies to carry out the measures set forth in a May 2000 executive order by then-President Bill Clinton. The order directed each federal agency that has the authority to manage marine protected areas (MPAs) to "enhance and expand protection of existing MPAs and to establish and recommend new MPAs." The order called for all types of U.S. marine ecosystems to be included in these MPAs.

The executive order was prompted by a letter to Clinton from the Marine Conservation Biology Institute (MCBI). As MCBI requested, Clinton directed the creation of a **Marine Protected Area Center** to develop a framework for a national MPA system and provide federal, state and local governments with a clearinghouse for information, technologies, and strategies to support the system. MCBI is calling for 20% of each

marine ecosystem type to be set aside in MPAs by the year 2015.

Source: Fox News <http://www.foxnews.com/story/0,2933,47642,00.html>, March 12, 2002

L.D.W.F. OFFERS NON-RESIDENT STUDENT LICENSES

The Louisiana Department of Wildlife and Fisheries (LDWF) has begun offering a new license to college students. Non-resident student hunting and fishing licenses are now available at the Baton Rouge LDWF office on Quail Drive. The licenses are available to full-time students of accredited colleges or universities with physical facilities in the state of Louisiana.

Students interested in the licenses are asked to contact the Baton Rouge office at 225/765-2887 for an application. The application must be filled out and certified by the school to affirm that the student is enrolled full-time. The license is conditional on the fact that the home state of the student offer the same privilege to Louisiana hunters and fishermen. At this time, the neighboring states Arkansas and Mississippi offer a similar license to Louisiana residents attending college in-state. The license is available at resident rates.

UNDERWATER OBSTRUCTION REMOVAL REPORT AVAILABLE

Bruce Ballard, Administrator of the Underwater Obstruction Removal Program within the Louisiana Department of Natural Resources has announced the availability of a new publication **Underwater Obstruction Removal Program: Hang Sites of Louisiana, 2002**. The report shows, by parish, where in coastal Louisiana they have located and/or removed underwater obstructions. This four-year-old program has removed over 8 million pounds of debris. Funding has come from various sources but the largest amount came from a National Oceanic and Atmospheric Administration grant channeled to the program by the Louisiana Department of Wildlife and Fisheries. Copies of the publication can be obtained by calling Ballard at 225/342-6293.

NIX TO BARBS

The Washington Fish and Wildlife Commission recently adopted a regulation that would prohibit the use of hooks with barbs in much of their coastal waters, including Puget Sound and Hood Canal. The only exemptions are for fishing for "forage" species such as herring or anchovy. Barbed hooks have long been outlawed for salmon fishing in marine waters of the state, but allowed for other species. The commission stopped short of prohibiting the use of barbed hooks in ocean waters because charter anglers often use live bait there. It is nearly impossible to use live bait with a barbless hook.

THE GUMBO POT

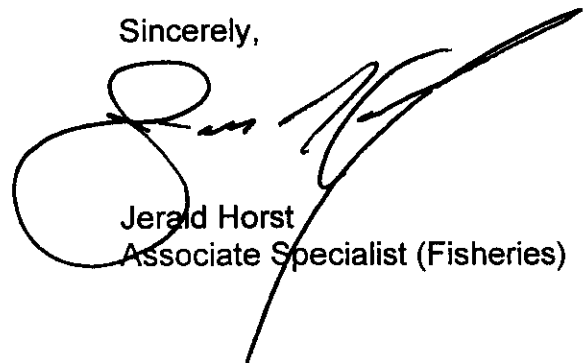
Evangeline Catfish

This month's recipe comes to us from Kevin Savoie of Cameron Parish. Kevin is an LSU AgCenter-Sea Grant Agent in southwestern Louisiana. Kevin says that there are probably hundreds of variations of the catfish gravy dish called "catfish courtbouillion." This one comes from Kevin's mother, Jeanette Savoie, who was originally from Basile in Evangeline Parish. The recipe was handed down from her mother. This is a typical Cajun one-pot dish, simple, yet delicious. The authenticity of the old heritage of the recipe is supported by the fact that it calls for use of the head of the catfish, if it is available. The head should be cleaned by skinning, cutting, discarding the parts just forward of the eyes and below the gill covers. Only the top part of the head behind the eyes is kept for cooking. The eyes should be removed and the head washed. Kevin says that it was always stressed that the head be included in this dish.

- | | |
|---|-----------------------------|
| 2 lb bone-in catfish, cut in large pieces | 2 tsp garlic, minced |
| 1 catfish head, if available | 1 cup onions, chopped fine |
| salt, red and black pepper | 3 tbsp flour |
| 2 tbsp cooking oil | 2 8-oz cans tomato sauce |
| 1 cup onions, chopped fine | 1 cup green onions, chopped |
| 1 cup bell pepper, chopped fine | ½ cup parsley, chopped |
| ½ cup celery, chopped fine | rice |

Rinse and drain the fish pieces. Season them liberally with salt, and red and black pepper. Add cooking oil to a large pot. (A black iron pot with a lid is preferred.) Layer about half of the onions, bell peppers, celery, and garlic in the pot. Add the fish pieces, then add the other half of the vegetables. Sprinkle the flour over the fish and then pour the tomato sauce over this. Finally, add the green onions and then the parsley. Cover tightly and simmer for 1 to 1½ hours. During cooking, never stir the mixture as this will break the fish to bits; instead gently shake and turn the pot. While the fish is cooking, boil or steam the rice, as preferred. Adjust seasoning, and serve over rice. Serves 4.

Sincerely,



Jerald Horst
Associate Specialist (Fisheries)