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ARE REDFISH STUNTING?

Since the great redfish scare in the late 1980's, redfish have been under tight harvest limitations, with a state recreational bag limit of 5 per person, no commercial harvest in state waters, and no harvest of any kind in federal waters. Since the regulations were set, no changes have been made, primarily because of a lack of new research information.

In an effort to develop more data, researchers at LSU were provided by the National Marine Fisheries Service with 558 redfish randomly taken from purse seine samples in 1997 and 371 more in 1998. Data taken from these fish were compared to data produced from analysis of 1352 redfish from the last such research, done in 1986, 1987 and 1988. All fish were aged by counting the growth rings in their otoliths (ear bones).

Ages of fish in the 1997 sample ranged from 2 to 42 years old and was dominated by 5 to 7 year old fish (34% of the total). Age ranges for the 1998 sample were 3 to 34 years old, dominated by 5 to 8 year old fish (54%). In the 1986-88 study, redfish aged 5 to 8 made up only 19% of the sample. This demonstrates that state regulations have been effective in allowing escapement of redfish to the offshore spawning population.

Of strong interest, the study indicated that redfish growth rates during the first 4-6 years of their life has become slower for the fish from the 1997-98 sample than it was for fish from the 1986-88 sample. Redfish from the more recent samples were only 91% to 93% of the size of redfish of the same age in the 1980s sample.

The conclusion was that the increased numbers of redfish inshore waters, in relation to the available food and space, may likely be stunting their growth.

Source: *Variation of Year Class Strength and Annual Reproductive Output of Red Drum Sciaenops ocellatus from the Northern Gulf of Mexico.* Charles A. Wilson and David L. Nieland. LSU Coastal Fisheries Institute. Marfin Cooperative Agreement No. NA77FFO549. December, 2000.

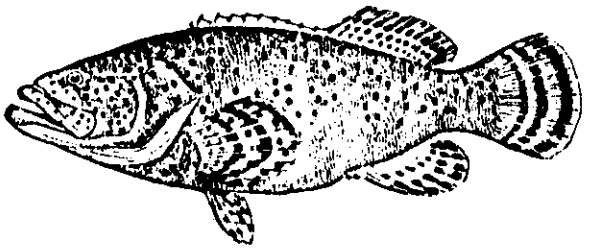
NO FISHING!

Knowing fisheries rules has become much more important, with the civil penalties now in place for "Species of Special Concern" in Louisiana. These make up the equivalent of a Louisiana "endangered species list" of fish. The civil penalty for taking any of the species below is a whopping $2,762.50 per fish, plus a criminal penalty of $250 to $500 on first offense.

The paddlefish is a primitive freshwater fish, often called a "spoonbill catfish" even though it isn't related to catfish at all. This fish is not listed on the U.S. Endangered Species List, but it is protected from all harvest in Louisiana. In south Louisiana, it is most often found in the Atchafalaya Basin and the major rivers of the state, and the lakes that these rivers flood during high-river periods.

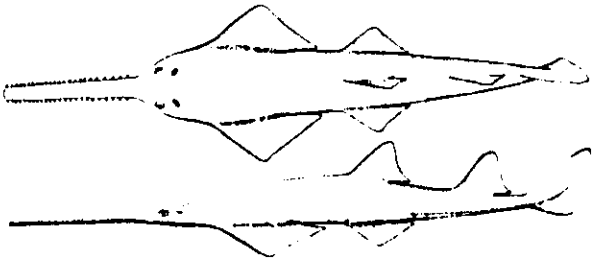
Three species of sturgeon exist in Louisiana waters, the pallid, the shovelnose, and the gulf sturgeon. All are protected from harvest. The very rare pallid sturgeon and its common look-alike cousin, the shovelnose sturgeon, are found primarily in the bigger rivers of Louisiana, such as the Mississippi and the Atchafalaya. They are truly freshwater species, unlike the larger gulf sturgeon. The shovelnose sturgeon is protected primarily because only an expert can tell the difference between it and the pallid sturgeon.

The gulf sturgeon is a very rare fish and is listed on the federal Endangered Species List as a threatened species. It spawns only in four rivers, the Pearl River in Louisiana, the Pascagoula River in Mississippi, and the Apalachicola and Suwannee Rivers in Florida. While they spawn in river waters, gulf sturgeons spend much of their life in brackish/marine waters near the rivers, such as Lakes Borgne and Pontchartrain and Mississippi Sound, all of which are near the Pearl River. This fish grows much larger than pallid or shovelnose sturgeons, reaching several hundred pounds in weight. In March, federal court in New Orleans ruled that the U.S. Fish and Wildlife Service must designate critical habitat for this fish. This will almost certainly include the Pearl River and its tributary, the Bogue Chitto River, and may affect some human activities on these rivers.



The last "Species of Special Concern" is the jewfish, an oversized member of the grouper family found in offshore waters of the gulf. While it has not formally been declared a federal endangered species, it is protected from harvest by both federal and Louisiana state laws. Hook-and-line fishermen are unlikely to land this fish, not only because of its rarity, but because of the difficulty of dragging a several hundred pound fish out from under an oil and gas platform. Spear fishermen should be aware, however, that this species is protected. It is a fairly easy grouper to identify, with its "tubby" shape, short dorsal fin spines, very broad flat head, and small beady eyes.

SAWFISH PROPOSED AS AN ENDANGERED SPECIES



In April, the National Marine Fisheries Service (NMFS) formally proposed listing the smalltooth sawfish as "endangered" on the U.S. Endangered Species List. NMFS was requested by the Center for Marine Conservation to list both this fish and its once less common relative, the largetooth sawfish, as endangered. If the smalltooth sawfish is listed, it will be the first U.S. marine fish declared to be endangered. Critical habitat for the fish will certainly be declared. A recovery plan will also be prepared.

This once very common fish ranged through all the Gulf and U.S. Atlantic states up to New York. At one time, recreational fishermen frequently caught the fish which grew up to 18 feet long. Entanglement in fishing gear as bycatch is blamed as the main reason for the decline of the species, although coastal development and pollution are listed as long-term threats.

Like the closely-related sharks, sawfish grow slowly, mature late and produce few young. Some scientists estimate that the U.S. population of the fish has declined by as much as 99%. Harvest in Louisiana waters is already prohibited by state law.

BAD BACTERIUM

In April, a well-written and well-illustrated article titled *Marsh Death* appeared in a statewide sportsmen's magazine. The article documented the very serious illness that a

Scary? Yes, but a fact of life for recreational and commercial fishermen exposed to brackish and salt waters. The organism, which lives naturally in seawater and is not the result of pollution, was first identified by scientists in 1975.

Vibrio vulnificus is also the same organism that has given the oyster industry fits in recent years with negative publicity and efforts to keep raw gulf states oysters off of the market in the warmer months of the year. While raw shellfish consumption has gotten the most publicity, the biggest risk may actually come from other exposures of "at risk" people to infection. AT RISK PEOPLE are those with the following conditions:

- Liver disease, including cirrhosis
- Alcoholism
- Cancer (especially during treatment)
- Diabetes
- Kidney disease
- Chronic intestinal disease
- Steroid dependency (as used for conditions such as emphysema, etc.)
- Achlorhydria (a condition where normal stomach acid is reduced or absent)
- Acquired immune deficiency syndrome (AIDS)

While the oyster industry has conducted an effective educational campaign warning "at risk" consumers of the hazards of eating raw shellfish, many sport and commercial fishermen with "at risk" conditions continue to expose themselves to *Vibro vulnificus* infections.

"At risk" individuals with wounds, cuts, punctures, burns, or similar skin damage should not swim or wade in seawater. "At risk" individuals should not clean or handle raw seafood without protection against skin damage.

The organism must enter a person's body through a break in the skin or by being eaten in order to infect an "at risk" person. **It is important to note that healthy people are considered at extremely low risk of infection.** Even "at risk" people may safely eat seafood that has been thoroughly cooked (to an internal temperature of 140°F). *Vibro vulnificus* is most abundant during warm months and may be dormant during cold winter months.

While infection with this organism is rare, individuals showing signs of skin infections after exposure to seawater or handling raw seafood should seek immediate medical attention. Once the infection enters the bloodstream, up to half of those so infected may die.

INSHORE CHARTER GUIDE FISH HARVEST

When the Gulf of Mexico Fishery Management Council released figures 3 months ago that of the total recreational harvest, the charter fishery was taking over 70% of the red snapper, 61% of the king mackerel, 32% of the gag grouper, and 63% of the amberjack, quite a few eyebrows were lifted. Since then, we have received several calls from both charter and private boat recreational fishermen, asking what the harvest breakdown on redfish and speckled trout is. Louisiana Department of Wildlife and Fisheries Marine Finfish Programs Manager Randy Pausina supplied the Louisiana harvest figures below for redfish and speckled trout.

REDFISH

Numbers of Fish and Percent of Catch				
	Private/Rental	Charter	Shore	Total
1986	1,510,999 92.9%	9,693 0.6%	105,293 6.5%	1,625,985
1987	1,285,196 85.5%	46,337 3.1%	172,147 11.4%	1,503,880
1988	659,989 81.2%	55,048 6.6%	97,739 12.0%	812,778
1989	938,125 89.2%	30,668 2.9%	83,288 7.9%	1,052,081
1990	507,038 82.2%	34,496 5.6%	75,069 12.2%	616,603
1991	781,618 89.6%	11,818 1.4%	79,277 9.1%	872,713
1992	1,625,348 91.9%	31,904 1.8%	110,688 6.3%	1,767,938
1993	1,562,774 81.7%	52,834 2.8%	298,225 15.6%	1,913,833
1994	1,199,626 88.6%	61,554 4.5%	120,892 6.7%	1,382,072
1995	2,181,600 89.1%	131,855 5.4%	135,366 5.5%	2,449,021
1996	1,784,572 85.7%	132,472 6.4%	185,352 7.9%	2,082,396
1997	1,685,393 85.5%	125,888 6.9%	139,278 7.6%	1,830,537
1998	1,258,564 88.2%	96,107 6.7%	72,480 5.1%	1,427,151
1999	1,573,589 89.2%	124,068 7.0%	65,838 3.7%	1,768,495
Average	1,316,759 87.4%	67,480 4.5%	122,923 8.2%	1,507,183

SPECKLED TROUT

Numbers of Fish and Percent of Catch

	Private/Rental	Charter	Shore	Total
1986	6,142,846 85.2%	411,752 4.3%	1,000,227 10.5%	9,554,824
1987	8,807,004 90.1%	585,070 7.7%	165,908 2.2%	7,557,982
1988	4,414,950 90.0%	396,014 8.1%	94,836 1.9%	4,905,800
1989	3,752,578 90.2%	318,038 7.6%	88,800 2.1%	4,159,416
1990	2,019,807 88.3%	71,569 3.1%	194,859 8.5%	2,288,235
1991	8,304,209 92.0%	122,108 1.8%	427,551 8.2%	8,853,866
1992	5,624,154 93.8%	111,881 1.9%	272,342 4.5%	6,008,367
1993	4,757,250 87.5%	192,078 3.5%	488,676 9.0%	5,438,004
1994	5,301,203 87.8%	247,383 4.1%	504,941 8.3%	6,053,507
1995	6,218,449 90.3%	361,244 5.2%	304,734 4.4%	6,884,427
1996	5,288,983 87.0%	299,844 4.9%	488,590 8.0%	6,077,417
1997	5,603,752 83.8%	479,345 7.2%	819,682 9.2%	6,702,769
1998	4,177,691 83.8%	424,507 8.5%	394,074 7.9%	4,998,272
1999	6,046,735 86.1%	510,406 7.3%	487,630 6.7%	7,024,971
Average	5,318,544 88.1%	323,657 5.4%	393,768 6.5%	6,035,969

As the figures indicate, inshore charter fishermen take a much smaller percentage of the total recreational catch than occurs offshore. Since 1988, a slight upward drift has seemed to occur in the percentage of redfish taken by charter guides. The trend seems less pronounced for speckled trout. In its last full licensing year, the Louisiana Department of Wildlife and Fisheries sold 434 resident saltwater charter guide licenses and 316,798 resident saltwater angler licenses.

FEDERAL CHARTERBOAT PERMIT MORATORIUM

At its last meeting, the Gulf of Mexico Fishery Management Council approved the creation of a for-hire (charter/headboat) permit and a 3-year moratorium on issuance of any new for-hire permits for waters of the EEZ (federal waters). The permits will have endorsements for reef fish, coastal pelagics, and dolphin/wahoo if a Dolphin/Wahoo Fishery Management Plan is put in place. Coastal pelagic fishes include mackerels, cobia and currently, dolphin.

Fully transferable permits and endorsements will be issued under the following conditions:

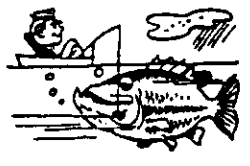
1) Vessels who obtained or have applied for reef fish and/or coastal pelagic permits prior to 03/29/01.
2) Any person who can demonstrate to the National Marine Fisheries Service (NMFS) they had a charter/headboat (for-hire) vessel under construction prior to 03/29/01 with copy of a contract and/or receipts for expenditures of at least $5,000.
3) Provide for Historical Captain Permits as follows:
Any U.S. Coast Guard licensed captain, who can demonstrate to NMFS, they were licensed by the USCG and operated as captain a for-hire fishery permitted vessel prior to 03/29/01, but did not have a fishery permit issued in their name, must qualify for the permit within 90 days of enactment and demonstrate at least 25% of their earned income came from recreational for-hire fishing in 1 of the last 4 years ending with 3/20/01. They will be issued a letter of eligibility to be replaced by permit/endorsements to be used only on a vessel that they operate as a captain.

Permits and endorsements will be fully transferable with or without the vessel, but without any increase in passenger capacity. Any permits and endorsements not renewed or permanently revoked will not be re-issued by NMFS. Renewals will be made every 2 years, provided that the vessel participates in one of the approved fishing data surveys.

This proposal must be approved by NMFS, after public comment, before becoming law.

INSHORE ARTIFICIAL REEF UPDATE

"The Lake Pontchartrain Artificial Reef Project has made great headway since it was first initiated in May, 2000" according LSU AgCenter Sea Grant Marine Advisor, Mark Schexnayder. Three reefs will be established, one each off of Jefferson, Orleans and St. Tammany Parishes. According to Schexnayder, each reef will be about 4 acres in size and constructed of limestone or concrete aggregate.



The Lake Pontchartrain Artificial Reef Working Group has received almost $60,000 in private donations and has just received a commitment (worth $20,000) to donate the placement of the first reef, which will be in Orleans Parish. The group has started the permitting process for the second reef, off of Jefferson Parish. A Fish America grant will be used to partially finance the development of this reef.

Co-chairmen for the working group are John Lopez of the Lake Pontchartrain Basin Foundation and Woody Crews of the Jefferson Parish Marine Fisheries Advisory Board. Project coordinator Mark Schexnayder may be contacted at 504/349-5644.

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:

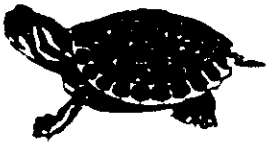
Loran sites

28042	46833	TERREBONNE

Lat. & Long. Sites

29 00.617	89 08.129	PLAQUEMINES
29 02.946	89 23.559	PLAQUEMINES
29 05.556	90 10.880	LAFOURCHE
29 05.832	89 21.985	PLAQUEMINES
29 08.275	90 05.142	LAFOURCHE
29 14.610	83 57.000	PLAQUEMINES
29 14.902	89 64.844	JEFFERSON
29 21.764	89 12.763	PLAQUEMINES
29 42.616	89 37.256	ST. BERNARD
29 51.060	93 20.724	CAMERON
29 52.600	89 42.371	ST. BERNARD
30 04.310	93 18.570	CALCASIEU

PET TURTLE INDUSTRY



The subject of aquaculture in Louisiana usually brings thought of crawfish and catfish to mind. One aquaculture industry that is unique to this state is the pet turtle industry, in which 57 farmers produce large numbers of baby turtles, mostly red-ear sliders, *Trachemys scripta* for sale as pets in Asia and parts of Europe. None of these baby pet turtles are sold across state lines in the U.S. due to concerns first about the disease micro-organism *Salmonella*, and now about the antibiotics used to get rid of *Salmonella*.

The pet turtle industry started in the 1930s with the harvest of wild baby turtles. Pet turtle farming in fenced ponds was well established by the end of the 1950s. By 1969, there were 75 farmers producing 15 million baby turtles. The *Salmonella* scare reduced that to 24 producers by 1987. In recent years growth has occurred, with 57 producers in 1998, located in nine Louisiana parishes.

Parish	Number of Farms
Catahoula	21
Assumption	16
Tangipahoa	7
Concordia	5

Franklin	3
Ouachita	2
Iberville	1
La Salle	1
Richland	1

These 57 producers from Louisiana accounted for 85%-90% of the world market in pet baby turtles. Production of certified pet turtles was 8.6 million in 1997 with an average price estimate of 70¢ per turtle sold.

A survey of the industry done by an LSU economist estimated the value of the industry's production in 1997 as $5.28 million. Each dollar was is predicted to lead to $1.84 of output for the state's economy, for a total of $9.703 million. The industry is responsible for producing 882 jobs, although much of the employment was seasonal.

Source: *The Contribution of the Pet Turtle Industry to the Louisiana Economy.* David W. Hughes. Louisiana Rural Economist. Vol. 62, No. 2, Spring, 2000. LSU AgCenter.

ELECTRONIC LICENSE PURCHASES

All Louisiana recreational fishing and hunting licenses that were previously available for purchase by telephone may now be purchased by electronic check. Previously, licenses could be purchased over the telephone only by Visa, MasterCard or bank debit card. Over 27,000 licenses were sold by telephone in the last year. "The point-of-sale and telephone system eliminates the need for the consumer to fill out a paper license form and provides convenience," said Louisiana Department of Wildlife and Fisheries (LDWF) licensing manager Janis Landry.

According to Landry, when paying by electronic check, customers should have their checkbook handy to read information to the operator. Licenses may be purchased by calling the toll-free number 1-888-765-2602 seven days a week, 24 hours a day. Hunting and fishing licenses are also available through participating vendors throughout Louisiana and in person at LDWF offices.

SOUTH ATLANTIC MARINE PROTECTED AREAS

The use of marine protected areas (MPAs) as a fishery management tool in the U.S. as taken another step forward with the announcement by the South Atlantic Fishery Management Council of nine public scoping meetings to gather comments on where to locate MPAs for use as a management tool for the snapper/grouper fishery and to conserve "essential fish habitat". This council is the South Atlantic region equivalent to our Gulf of Mexico Fishery Management Council.

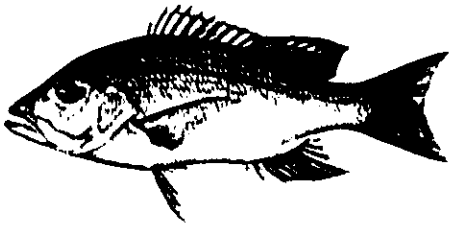
The South Atlantic Council is considering the following types of MPA actions:

1) Permanent closure with no take allowed
2) Permanent closure with some take allowed
3) Limited time closure with no take allowed
4) Limited time closure with some take allowed
5) Spawning area closure with no take allowed
6) Spawning area closure with some take allowed

At the present time the council wants to use the type 2) closure with the harvest of pelagic fish (open water species like tuna and wahoo) allowed. These meetings come at the same time that the Bush Administration has announced its intent to review the commitments made to the creation of MPAs by the outgoing Clinton Administration.

FLOATERS

One of the most upsetting sights to both recreational and commercial fishermen is the sight of a line of undersized red snappers floating belly-up down current from their boat. Management began in 1984 with a minimum size of 13 inches. In the years since, the minimum size has gradually crept up to its current 16 inches for recreational and 15 inches for commercial fishermen. With each size increase, more fish fell into the undersized category and had to be discarded.



Current science says that only 20% of the red snapper catch is discarded and that enough fish survive to grow larger to more than offset the discards. In 1998, the year that the minimum recreational size was temporarily moved to 18 inches, a researcher with the University of Texas Marine Lab conducted a two month study on red snapper discards. In August and September, observers made 54 trips on headboats out of Galveston, Port Aransas and Port Isabel. They measured and weighed all fish and noted in what condition the discarded fish were in.

The table at the right shows that a very large number of discards occur in the fishery. During the study period, 92.3 % of the catch was released as undersized. Even if the minimum size was at the current 16 inches, 53.3 % of the catch would have been discarded. The discard rate varied by location. Off of Galveston, 1300 red snapper were discarded to keep only 6 fish, a ratio of 218 to 1. High discard rates can have strong impacts on stock assessments.

Size Group	Percent
18+ inches	7.7%
17+ inches	14.4%
16+ inches	24.6%
15+ inches	40.9%

Of the fish discarded, 55% seemed healthy and swam down immediately, 26% swam erratically and seemed disoriented or injured, 17% were floating, and 2% were released dead. The researcher commented that almost half of the small snappers released were likely to die or be eaten by other animals.

The researcher did note that a higher percentage of fish from deeper waters were released dead, disabled or floating than from shallower waters. She noted no relationship between the size of the fish and their condition, however.

Source: *Red Snapper (Lutjanus campechanus) Discards in Texas Coastal Waters — A Fishery Dependent Onboard Survey of Recreational Headboat Discards and Landings.* Barbara Dorf. Gulf of Mexico Fish and Fisheries: Bringing Together New and Recent Research. U. S. Department of the Interior, Minerals Management Service. October, 2000.

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THE GUMBO POT

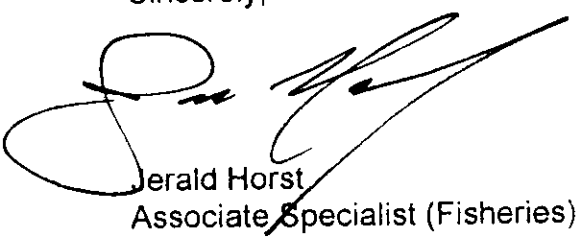
Shrimp Conga

Everyone loves shrimp, however, not everyone like blue cheese. It's definitely an acquired taste. I like both and I like this dish. The blue cheese does not overwhelm the taste, but you can definitely taste that it is there. Be sure to serve this with warm French bread to sop up the shrimp/blue cheese butter.

1	stick butter	1	lb peeled medium-large tails
8	tbsp cream cheese	4	tbsp lime juice
3	tbsp blue cheese crumbles	salt and pepper to taste	

Melt butter in a small sauce pan. Add cream cheese and blue cheese and mix while softening over heat. Arrange shrimp in a large deep baking dish. Sprinkle with lime juice, salt and pepper. Spoon butter mixture over the top. Bake uncovered in a 400 degree oven until shrimp are pink and done. Serves 4.

Sincerely,



Jerald Horst
Associate Specialist (Fisheries)