### COOPERATIVE EXTENSION SERVICE

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# Lagniappe



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Natural Resources

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### **BLUE CRAB BLUES**

After one year of regulatory harvest restrictions, the blue crab situation on the Atlantic Coast has not gotten any better, and may be worse. Additionally, disagreement over what to do next is heating up. Declining blue crab populations and catches prompted the states of Maryland and Virginia and the Potomac River Fisheries Commission to agree to cut harvest by 15% over 3 years to protect the resource. Last year was the first year of the cutback, with regulations designed to reduce harvests by 5%.

Commercial landings, however, have declined by much more than 5%. While the final numbers are not in, blue crab catches in Virginia may be off by nearly half, in the Potomac River by over half, and Maryland landings are expected to be down by one-third. Another east coast state, Georgia, reports that its blue crab catches are falling, down by 22% from 2000,



which before this year, was the worst year on record. Georgia is not a Chesapeake Bay state and has not enacted harvest regulations. Biologists there blame the drought and a crab-killing disease known as *Hematodinium*.

The reasons for the landings decline in the Chesapeake Bay has caused sharp disagreement. Many commercial fishermen, or watermen as they are called there, blame the new regulations and say that any more regulation will put them out of business. Some Maryland crabmeat picking plant operators agree, saying that proposed new regulations would place an unfair burden on them. They cite a study by the Maryland Sea Grant Extension Program and the University of Maryland which projects a loss of \$18 million annually. Maryland is proposing an increase in the minimum size to 5½ inches and restrictions on the possession of sponge crabs in Maryland that were harvested from states like Virginia, where their take is legal.

Virginia has proposed a ban on the harvest, possession or sale of sponge crabs taken from its waters, a move that some watermen feel would force them to increase their harvest of smaller crabs and peeler crabs. Also being discussed are regulations to limit



Virginia watermen to working 8 hours a day, to put a 3½-inch minimum size on peeler crabs and a 4¼-inch minimum on soft crabs, and to require more detail on the tags on crab traps to prevent watermen from using more pots than they are allowed to.

Some biologists disagree with the watermen who blame regulations for low landings, saying that the blue crab population is really in worse shape than projected. They propose putting regulations into effect that would produce the full 15% cut by this year, rather than the original target year of 2003.

### OYSTER REPORT INFORMATION MEETINGS

LSU AgCenter marine advisors Rusty Gaude', David Bourgeois and Mark Schexnayder are assisting the Louisiana Department of Wildlife and Fisheries (LDWF) in setting up special meetings for oystermen to learn more about new reporting requirements. Act 438 of the 2001 Louisiana Legislature requires oyster leaseholders to report to LDWF each year the following



information on their leases: name of leaseholder, harvest grid number, the amount of marketable oysters removed, the amount of seed oysters removed, the amount of cultch material placed, and the amount and source of seed oysters planted.

A grid system has been developed for all oyster-growing waters and all reports will be made by grid. Damage to valuable oyster leases by operation of freshwater diversion projects has become an issue. The information collected from these reports will be used by the Louisiana Department of Natural Resources for solving problems associated with coastal restoration efforts such as diversions.

Reporting is mandatory under law and violation of this law carries civil penalties. Failure to pay the civil penalties and assessment costs will result in the immediate loss of all recreational hunting and fishing licenses until the penalties are paid. Oystermen will be required to report this year's activities on their leases early next year. Marty Bourgeois, the LDWF biologist in charge of oyster programs, will be at each meeting to explain the reporting system and answer questions.

Meetings will be held at 1:30 p.m. at the following locations.

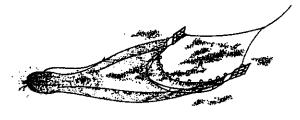
MONDAY, MARCH 11, 2002 Isleno Center 1357 Bayou Rd. St. Bernard, LA TUESDAY, MARCH 12, 2002 South Lafourche Levee District Bldg. 17904 La. Hwy 3235 Galliano, LA.

WEDNESDAY, MARCH 13, 2002 LSU AgCenter Office 511 Roussel St. Houma, LA.

TUESDAY, MARCH 19, 2002 Old Metairie Library 2350 Metairie Rd. Metairie, LA

# **ENVIRONMENTAL GROUPS ATTACK TRAWLS**

In January, five environmental groups, Environmental Defense, Oceana, Gulf Restoration Network, ReefKeeper International, and The Ocean Conservancy, signed off on a letter strongly disagreeing with an assessment by Wayne Swingle, executive director of the Gulf of



Mexico Fishery Management Council on the effects of shrimp trawls on essential fish habitat (EFH).

The assessment stated that shrimp trawls are highly unlikely to cause any negative effect in inshore and offshore waters between Alabama and Texas. It said that waterbottoms in this area are mostly mud which is constantly being reworked by storms, so trawls would not have any effect that wasn't already occurring. Many of these waters are naturally murky or muddy or at least have a layer of such water. Additionally, the Mobile, Mississippi and Atchafalaya Rivers are constantly adding new layers of sediments on top of what is already there. The assessment did note that waterbottoms off of Florida were different, with many of the bottoms there being considered untrawlable. Swingle recognized that hard bottoms encrusted with living organisms could be damaged by trawling, but concluded that "surely fishermen who routinely fish off of Florida avoid these areas."

The letter from the environmental groups opens by stating that no evidence is presented which supports either Swingle's statement about shrimpers off Florida avoiding

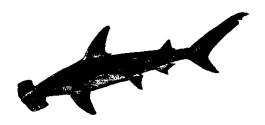
They went on to state that while scientists have not reached agreement on any long-term damage caused by Gulf shrimp trawls, many studies have identified a wide range of trawl-caused habitat damage. They listed seven:

- 1) Shrimp trawling flattens the bottom and removes bottom structure.
- 2) Shrimp trawling harms fragile bottom animals.
- 3) Shrimp trawling disturbs bottom sediments, allowing the finer-grained ones to be swept away by currents. It also causes compression (packing) of the bottom and low oxygen in the sediments.
- 4) Shrimp trawling reduces water clarity, which interferes with the ability of plants to grow and fish to feed.
- 5) Shrimp trawling reduces the health of bays and estuaries.
- 6) Shrimp trawling stirs pollution-contaminated sediments up into the water.
- 7) Shrimp trawling causes harmful algae blooms.

When the first EFH provisions were put in the Magnuson Act three years ago, criticism was expected about certain fishing activities and the use of some gear. While little controversy over EFH has occurred in the last couple of years, that is likely to change.

### SHARK WARS

In the not too distant past, critics were disappointed by fisheries management being done by legislators rather than biologists. Now, it seems that judges and courts are the centers of action for fisheries management. The National Marine Fisheries Service (NMFS) seems to carry a backlog of over 100 fisheries lawsuits against it at all times. While many lawsuits are filed by recreational and commercial fishing interests, environmental groups are launching a very large percentage of the suits.



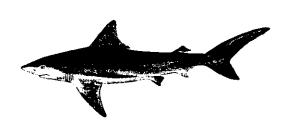
The latest rounds in court are being fought over the harvest of sharks in the Atlantic Ocean and Gulf of Mexico. In 2001, the Southern Offshore Fishing Association sued NMFS over a 1998 study which was used to propose cutting commercial shark harvest quotas by 36%. This cut would have been on top of cuts that had

already reduced shark harvests by half since 1993. At target was a mathematical population model that was pushed by three members of an environmental group, the Wildlife Conservation Society, that actually sat on the 22-member stock assessment panel.

NMFS agreed to settle the lawsuit by allowing four independent fisheries experts to go over the model. All four found problems with either the mathematics or the quality

of the data. As a result, NMFS decided to allow commercial shark quotas to remain at 1997 levels until they conducted another assessment this year and have it reviewed by independent scientists.

The response from the environmental groups was not long in coming. They sued. The Audubon Society, the Ocean Conservancy and Earth Justice filed suit to have a federal judge step in to force NMFS to put the tighter harvest quota in and also prevent NMFS from using any independent outside experts. All of the environ-

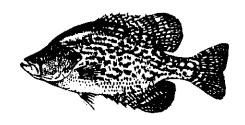


mental groups now suing NMFS were it's recent allies when NMFS was clamping down on shark harvests.

The two sides agree on almost nothing. The large number of shark attacks this year—worldwide, in Florida, in North Carolina, and in Alabama, are the result, some fishermen say, of rapidly increasing shark populations. Environmental groups reply that these numbers are due to better reporting and larger human populations. George Burgess, director for the International Shark Attack File says that "Humans, frankly, are flooding sharks out of their own water." Environmental groups say that fishermen have "hijacked" the process. On the other side, Bob Spaeth, executive director of the Southern Offshore Fishing Association replies. "Obviously, these people are Hell bent — whether the science is any good or not — on shutting down shark fishing."

### CRAPPIE TOURNAMENTS

Crappie, also known as sac-au-lait or white perch, are an incredibly popular fish in Louisiana. So popular that the Louisiana Legislature declared them to be the official state freshwater fish in 1993. In recent years, crappie fishing tournaments have become more common, putting even more fishing pressure on this fish.



In an effort to see just how much pressure crappie tournaments put on crappie populations, biologists with the Texas Parks and Wildlife Department (TPW) worked with a 60-day "Crappiethon USA" fishing contest in Lake Texoma, a 90 thousand acre reservoir on the Texas-Oklahoma border. Under Crappiethon rules,

contestants were required to buy badges and return any crappie tagged for the tournament alive to any local participating business for randomly determined rewards ranging from \$25 to \$50,000.

In the first year of the study, 1,200 crappie were tagged by anglers and another 106 tagged from TPW trap nets. In the second year, 1000 crappies were tagged by anglers, with an additional 144 by TPW personnel.

Recaptures of tagged fish by Crappiethon tournament anglers were reported to TPW. The first year, 4,416 contest fishermen returned 356 tagged crappie. The second year, 3,496 contest anglers returned 262 tagged fish. After adjustment for tag loss and fish deaths due to handling and tagging, the researchers concluded that tournament harvest of crappie was likely 41% of the lake's population over 10 inches long in the first year and 30% in the second year.

Total crappie harvest from the lake is substantially higher, as interviews with fishermen showed that only about ½ of the crappie fishermen on the lake were Crappiethon contestants. Catch of tagged crappie by non-contestants was not reported in this study. Also, tagged crappie that died after capture were not reported, since Crappiethon rules require fish to be alive. Dead crappie were likely filleted and forgotten.

The biologists concluded from the study that tournament harvest of crappie can be high and may impact the fishery in a body of water. However, in spite of the high harvests from Lake Texoma during the study period, stock assessments have indicated that the crappie fishery of the lake is not overfished.

Source:

Exploitation of Crappie by Contest Anglers on Lake Texoma, Texas-Oklahoma. B.T. Hysmith and J. H. Moczygemba. Proceedings of the 53<sup>rd</sup> Annual Conference, Southeastern Association of Fish and Wildlife Agencies. 1999.

# 2001 REEF FISH STOCK ASSESSMENT REPORTS

Management of fisheries resources in federal offshore waters is done through the use of **stock assessment panels**. These panels are made up of independent scientists who review the latest research on a species or a group of species and use mathematical models to estimate the health of a fishery. National Marine Fisheries Service scientists work closely with the panels in their deliberations. Panel recommendations are made for the regional fishery management council to use in their decision on how to manage a fishery.

The most active stock assessment panel under the Gulf of Mexico Fishery Management Council is the Reef Fish Stock Assessment Panel (RFSAP). At the end of November, this panel delivered the final draft of its report on the health of gag grouper, vermilion snapper and gray triggerfish populations in the Gulf of Mexico. The results of their report, by species, are as follows:

## Gaq



Gag grouper are landed in all five gulf states, although the majority of landings come from Florida. Approximately two-thirds of the total are caught by the recreational fishery with the private boat sector dominating the charter/headboat fishery. Earlier stock

assessments in 1994 and 1998 reported that gag populations were fairly stable. However, the earlier stock assessment indicated that the male to female ratio in the population had changed from 6:1 to 34:1 between the late 1970s and the early 1990s, causing concern that the population could be overfished by not having enough males to fertilize the females. Gag are protogynous hermaphrodites, which means that they all begin life as females and change to males only when older and larger. Fishing that targets larger fish on such species often removes more males than females from the population.

The current stock assessment estimates that males make up roughly 5% of the population. Ideally, this should be at least 19%. The report did note that some of the currant imbalance is due to strong spawns in recent years that have added large numbers of smaller fish, all of which are females, to the population.

With the mathematical model that the RFSAP used, the maximum annual harvest that can safely be made is almost certainly 4.4 million pounds or higher, but only a 50% chance exists that may be as high as 6.2 million pounds. Landings have averaged 5.2 million pounds annually for the last 3 years, and have never been as high as 6.2 million pounds. Because a 6.2 million pound harvest has a higher risk of resulting in overfishing and because the historical fishery has never landed that amount, the RFSAP recommended that the allowable catch be kept at the average of the last 3 years, which is about 5 million pounds. The panel did note that while they were concerned about the low percentage of male fish in the population, creating regulations that allowed a large number of fish to survive beyond 8 years old wouldn't increase egg production in the gag population much, because most of these older fish would be males. It would, however, result in a larger poundage harvest of gag.

### Vermilion Snapper



Gulf of Mexico landings of vermilion snapper, or bee-liners as they are often called, increased from the 1980s to a peak of 3.5 million pounds by 1999. The commercial fishery makes slightly over three-fourths of the total catch. In a 1990 stock assess-

ment, the RFSAP recommended an allowable annual harvest of 2.0-2.9 million pounds. A 1996 assessment showed that vermilion snapper stocks were showing signs of overfishing, declining average size of the fish, lower catches per day of fishing, and less young fish. The 2001 stock assessment indicates that overfishing is now occurring and

the panel recommended that catches be kept under 1.5 million pounds each of the next 10 years. This would require action to reduce harvests, which were over 2 million pounds in 1999. The RFSAP recommended an even tighter quota of 1 million pounds for 2002.

# Gray Triggerfish



Gray triggerfish are harvested by both commercial and recreational fishermen in the Gulf of Mexico. The recreational fishery takes the majority, mostly from charter boats. No previous stock assessment has been done on gray triggerfish and less information exists on this fish than on gag and vermilion snapper. With what information

the RFSAP had, they recommended capping the harvest of gray triggerfish at the current 1 million pound harvest level. It should be noted that one member of the panel strongly disagreed with this recommendation. In his view, the fishery is likely not overfished. He points out that gray triggerfish stake out a territory and don't leave it, so little adult population mixing occurs. Sampling done in a heavily-fished area can therefore indicate overfishing, while in actuality, most of the population may be fine. Also, triggerfish are not a primary target of most fishermen, but rather caught secondarily to snappers. The declining catch of triggerfish per day of fishing may likely be due to the recovery of red snapper populations, causing fishermen to ignore triggerfish and target red snappers.

Source: October 2001 Report of the Reef Fish Stock Assessment Panel. Final Draft. November 26, 2001. Gulf of Mexico Fishery Management Council.

### **FISHERIES MUSEUM NEEDS "STUFF"**

The Louisiana Marine Fisheries Museum has begun construction for its expansion into a new wing, which will more than double the size of the museum, according to Museum Task Force Chairman Art Cormier. The museum has the goal of showing how Louisianians have used and depended on fisheries and other natural resources from the colonial era to the present.

"With the expansion of the museum," says Cormier, "we have a greater need than ever for historical artifacts related to fishing and fur trapping." Although the museum needs everything from heavy equipment to labels off of seafood cans, certain items are especially needed for displays currently under design. Included on their wish list are:

- 1) Human mannequins to use in activity displays
- 2) A fur trapper's skinning knife and axe
- 3) Fish mounts
- 4) Old boat building tools
- 5) Shrimp drying platform equipment, especially a wooden chinee basket

- 6) A Winchester Model 97 12-gauge shotgun
- 7) A slaughter pole
- 8) Old recreational fishing equipment

Donors or lenders may call Cormier at 504/436-4681. He will arrange for pickup of any item and appropriate credit. Cormier stressed that old fishing, trapping and hunting photographs are also still of interest for the museum. Photographs will be duplicated and returned. The Louisiana Marine Fisheries Museum is located on the northern edge of the Village of Jean Lafitte.

The Louisiana Marine Fisheries Museum is open Tuesday through Sunday from 10 a.m. to 4 p.m.

### M.P.A.S PROPOSED FOR FLORIDA

The concept of using marine protected areas (MPAs) in fisheries management has taken another step forward. The South Atlantic Fishery Management Council has settled on 3 sites off of Florida's east coast — Sea Bass Rocks off of Hobe Sound, East and Unnamed Humps off of Islamorda, and a site off of Jacksonville or St. Augustine for the creation of MPAs. The locations all hold concentrations of grouper, snapper and amberiack.

The council says that all of the Florida sites are being considered as "Type 2" MPAs, meaning that bottom fishing for snappers and groupers would not be allowed, but other types of fishing such as mid-water fishing or surface trolling would be allowed. Possessions of snappers and groupers would not be legal on any boats in the areas.

# **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 two months. The coordinates are listed below:

<u>Loran Sites</u>			<u>Lat.</u>	<u>Lat. &amp; Long. Sites</u>		
27971	46834	TERREBONNE	29 15.732	90 05.733	LAFOURCHE	
28055	46832	TERREBONNE	29 16.610	89 52.010	JEFFERSON	
28540	46895	JEFFERSON	29 16.797	89 42.622	JEFFERSON	
28568	46863	JEFFERSON	29 31.740	90 07.730	JEFFERSON	
26839	46968	CAMERON	29 32.036	90 09.015	LAFOURCHE	
			29 35.129	90 03.854	JEFFERSON	
			29 43.330	90 02.190	PLAQUEMINES	
			29 48.170	88 58.430	ST. BERNARD	
			29 50.974	93 19.753	CAMERON	
			29 23.067	90 39.925	TERREBONNE	

# **CHOUPIQUE CHOW**

The primitive bowfin, or as it is so often called in Cajun Louisiana, the choupique, is common fish in fresh waters of the southern U.S. It is a predator fish, as bass fishermen often find out when one of them latches onto their crankbait with powerful jaws and teeth. Its reputation as a predator often causes fishermen to question whether it eats or competes with gamefish found in the same waters.



Biologists in North Carolina conducted a four year study in two coastal rivers to determine just what bowfin eat. They used electrofishing (shocking) equipment to collect 367 bowfin, ranging in size from 12 to 32

inches long. Their stomach contents were counted, weighed and identified.

The food items fell into 4 categories: crawfish, fish, grass shrimp, and insects, mainly dragonflies (mosquito hawks). Crawfish were very important in their diets, found in 79% of the bowfin stomachs from the Black River and 71% of the bowfin from the Lumber River. Fish remains were found in 21% of stomachs containing food from the Black River and 47% of those from the Lumber River.

By count, in the Black River, crawfish made up 65%, insects 14%, grass shrimp 10%, and fish 8% of all food items. Because of their larger average size, fish food items made up 47% of the weight of food consumed. Fish food items by number were broken into sunfishes (45%), catfishes (14%), other fish, primarily eels, other bowfin and a small bottom fish called pirate perch (27%), and unidentifiable fish (14%). Sunfishes as a group, include several species of fish also called bream.

In the Lumber River, bowfin diets, by count, were 63% crawfish and 23% fish, with the remainder being insects and grass shrimp. By weight, fish were more important in the diet of Lumber River bowfin, accounting for 73% of their diet. Fish food items here were broken into sunfishes (40%), catfishes (12%), other fish, mostly eels and small suckers (11%), and unidentifiable fish (37%).

Research done on bowfins in southwestern Louisiana in 1967, indicated a similar diet, comprised heavily of crawfish, grass shrimp and crabs.

Source:

Food Habits of Bowfin in the Black and Lumber Rivers, North Carolina. K.W. Ashley and R.T. Rachels. Proceedings of the 53<sup>rd</sup> Annual Conference, Southeastern Association of Fish and Wildlife Agencies. 1999.

### T.E.D. TESTERS NEEDED

As a result of comments by shrimpers at the National Marine Fisheries Service (NMFS) hearing in Louisiana on the double cover flap TED, NMFS gear specialists are looking for more data. NMFS would like to place observers on commercial shrimp boats to better test how well the double cover flap works in Louisiana waters. Shrimpers that may be able to cooperate should call John Mitchell at 228/762-4591, ext. 259 in Pascagoula, MS. He will be happy to answer any questions.

IF YOU HAVE A SEAFOOD RECIPE THAT YOU WOULD LIKE TO SHARE WITH OUR READERS, PLEASE SEND IT TO LAGNIAPPE NEWSLETTER, 6640 RIVERSIDE DR, SUITE 200, METAIRIE, LA. 70003. PLEASE INCLUDE YOUR NAME AND TELEPHONE NUMBER.

### THE GUMBO POT

### **Crabmeat Pasta**

This month's recipe comes to us from Debbie and George Barisich of Violet, Louisiana. This wonderful recipe is supposed to be just as good using shrimp instead of crabmeat. They suggest, however, that if raw shrimp are used that they be sauteed in butter until cooked, before being added to the mixture.

2	12-oz packages vermicelli	1	Ib Velveeta cheese
1	lb fresh mushrooms, sliced	1	lb crabmeat (or sauteed shrimp)
1	large bell pepper, chopped	1/2	pint half and half
1	large bunch green onion, chopped	1	small jar of pimentos, chopped,
1	lb butter		salt, pepper and tabasco to taste

Boil the vermicelli and drain well. While pasta water is heating, saute the mushrooms, bell pepper and green onions in half of the butter until soft. Melt the cheese in the rest of the butter in a double boiler. Add the sauteed seasonings, crabmeat, and the half and half. Mix well over moderate heat. Mix these ingredients with the cooked and drained vermicelli in oven-proof dish. Heat in oven for 30 minutes at 350°F. Serves 6

Sincerely,

**)**ęrald Horst

Associate Specialist (Fisheries)