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SHRIMPERS ELIGIBLE FOR T.A.A. FEDERAL AID

The U.S. Department of Agriculture's Foreign Agricultural Service (FAS) has certified a petition from the Louisiana Shrimp Association under which Louisiana commercial shrimpers will be eligible in 2005 for Trade Adjustment Assistance (TAA). Shrimpers became eligible when an FAS investigation determined that fresh and frozen shrimp imports contributed to a decline in the price of shrimp landed in Louisiana in 2003, when compared to the 1998-2002 base period.

Shrimpers must apply for TAA benefits between January 10 and April 11, 2005 at a local Farm Service Agency (FSA) office. Offices are located in Franklinton, 985/839-5687, Edgard, 985/497-3311, Thibodaux, 985/446-6226, Franklin, 337/828-0493, New Iberia, 337/369-3234, St. Martinville, 337/332-2811, Abbeville, 337/893-5781, and Lake Charles, 337/436-5020.

To be eligible, shrimpers must prove with IRS records or records from a certified public accountant that they received less net income from shrimping in 2003 than in 2002. Landing records for 2003 are also required. FSA will accept sales receipts, invoices and scale or delivery tickets.

Finally, shrimpers must attend a technical assistance class taught by the LSU AgCenter's Extension Service before they can get paid. This must be done by July 11, 2005.

A total of $90 million has been appropriated, but that amount must cover all eligible agricultural and fisheries production in the United States. According to Gerard Labbe of the state FSA office, the maximum payout that shrimpers can receive is 5.6 cents per pound of head-on shrimp landed. Depending on how many other crops qualify, the payout could be less.

BRITISH SCIENTISTS RECOMMEND MASSIVE CHANGES

Britain's Royal Commission on Environmental Pollution has released its report *Turning the Tide: Addressing the Impact of Fisheries on the Marine Environment.* Its recommendations are very similar to those made by other scientific bodies and

environmental groups in the U.S. and the rest of the world. If adopted, they would result in massive changes in fisheries management.

The report opens by stating, "Past fisheries policies have failed, and incremental improvements will not deliver a sustainable future. We face further decline unless there is significant and urgent action. This is particularly important at a time when climate change is likely to put extra stress on the marine environment."

It goes on, "We therefore call for radical change to increase protection for the marine environment. In the short-term this will be painful to those in the fishing industry, but government must look at the wide picture, including society's stewardship of the environment. The industry will need support to adjust, but in the longer term the changes we call for will be in its own best interest. A continued regime of too little, too late will ultimately leave many sectors of the industry without a future." The report urges the British government not only to make changes in the waters under its control but also to apply all possible pressure to other European nations to make similar changes.

The reports lists many challenges and problems. Among them are:

* **Overfishing of commercial species.** Half of the fish landed by British fishermen come from stocks that are overfished or borderline.

* **Fishing down the food chain.** As larger, more desirable species are fished out, fishermen turn to catching smaller, less desirable species that used to serve as food for the larger fished-out predators.

* **Damage to the seabed.** Some areas of sea bottom are plowed up more by trawl otter doors than planted agricultural fields are plowed on land.

* **Discards and Bycatch.**

* **Aquaculture.** The aquaculture industry relies on huge fishing operations to supply fishmeal and fish oil for feed.

* **Marine ecosystems.** Not just commercial fish are being damaged by fishing, but also whole ecosystems are, including habitats, plants, non-target fish, birds, and marine mammals.

The Royal Commission's report made several major recommendations, including the following:

* Applicants for fishing and marine aquaculture permits should have to prove

that their activities will not harm the sea's long-term health before they get a permit.

* Within 5 years, the government should establish marine reserves or marine protected areas (MPAs), where no commercial fishing is allowed, that cover 30% of the sea under its control. The report states that running a world-wide system of MPAs would be much less expensive than the present system of financially subsidizing fishing fleets. The report said that progress toward creating MPAs is too slow and that they should be placed in all types of marine habitats.

* Financial assistance should be provided to the commercial fishing industry during the establishment of the MPA network.

* A "decommissioning scheme" should be created, under which vessel owners would destroy their vessels for cash. Management should move away from managing separate fish species with harvest quotas, because illegal fishing and misreporting can undermine management. Instead, management should move towards managing fisheries on the basis of controlling the amount of fishing activity (fishing effort). Electronic vessel monitoring systems should be placed on all vessels over 25 feet long in 3-5 years.

* Funds should be provided to the industry to promote economic diversification in areas that depend on commercial fishing.

* The British government should prevent all deep-sea trawling and push the European Commission for a ban on bottom trawling, gillnetting, and longlining for deep-sea species.

Source: *Turning the Tide: Addressing the Impact of Fisheries on the Marine Environment.* Royal Commission on Environmental Pollution. 25th Report. 480 pp. December 7, 2004.

P.E.T.A. ON THE ATTACK AGAIN

As if the news from fisheries scientists hasn't been bad enough for fishermen, the animal rights group, People for the Ethical Treatment of Animals (PETA) has launched a campaign called the "Fish Empathy Project". The project stresses that "Fish are friends, not food".

PETA Logo

Never missing an opportunity, after former President Jimmy Carter was accidentally hooked in the face on a recent fishing trip, PETA faxed him a letter urging him to give up fishing because the activity is not appropriate for a Nobel Peace Prize winner. "We're asking President Carter to think this through and to grant fish peace by leaving

them in the water where they belong," PETA President Ingrid Newkirk said in a press release. In referring to Carter's accident on their website, PETA says "Now that the has experienced the agony of being hooked in the face, we hope that President Carter will make his next foray into the great outdoors without any deadly weapons."

The Fish Empathy Project followed the "Turn in Your Tackle" campaign which was launched on Fish Amnesty Day, September 25, 2004. The aim of this campaign was "to relegate fishing to the historical trash heap." Promising to use the fishing equipment in anti-fishing demonstrations PETA said, "You can make sure that Grandpa's old fishing rod won't cause any more pain and suffering. Donate your (and his) fishing rods and reels to PETA."

PETA does not discriminate in its anti-fishing campaign, condemning recreational fishing, commercial fishing and aquaculture equally. "Whether they're raised on aquafarms, caught in the ocean by giant nets or longlines or hooked at the end of a fishing line, there's no doubt about it: Eating fish supports cruelty to animals." They add, "The methods used to kill fish are shocking and horrifying. Fish are so hideously abused that it would warrant felony cruelty charges if the victims were dogs or cats (or even cows or pigs)"

Concerning commercial fishing, PETA says that "fish suffer horribly on the journey from the sea to the supermarket". According to PETA, "Fish come out of the nets with their skin scraped completely raw from being forced to rub up against rocks, debris–and other fish–trapped with them." And the story gets worse after the catch. "Without any legal protection from cruel treatment, fish are impaled, crushed, suffocated, or sliced open and gutted, all while they're fully conscious."

PETA seems to reserve a special horror for sportfishing, asking anglers to "imagine reaching for an apple on a tree and having your hand suddenly impaled by a metal hook that drags you–the whole weight of your body pulling on that one hand–out of the air and into an atmosphere in which you cannot breathe. This is what fish experience when they are hooked for sport." Reminding anglers that "fish are complex and intelligent individuals" they say, "fishing is just as cruel as tossing Rover a biscuit on a hook and then reeling in the old boy. The only difference is that Rover is cute and cuddly. But don't let the scales and gills fool you: Those fish have feelings, too."

Catch-and-release fishing fares no better, "Even when thrown back, fish are forced to endure a violent and frightening ordeal." PETA quotes 'naturalist' David Quammen, "I've had more and more trouble with catch-and-release fishing as time goes on. I've concluded that it's speciesist to tell ourselves it's a game to the fish. It's deadly mortal serious to them. These animals were hysterically fighting for survival..."

PETA has issued a call to Anheuser-Busch, asking the company to immediately stop sponsoring Bassmaster fishing tournaments. They state that bass, as "fascinating individuals, are mercilessly abused by Bassmaster participants. In fact, fishers could land in jail if they treated any other animal as cruelly as they treat fish?" Urging the

company to stop "bankrolling cruelty to animals at fishing tournaments", PETA says, "Anheuser-Busch would never sponsor tournaments that involved impaling dogs or cats with hooks through their mouths, but it's not any better to treat fish so abusively."

The organization goes to great lengths to compare fish to other animals, and even humans, illustrated by the statement, "When it comes to feelings, a child is a dog is a fish." PETA cites studies that fish have a well developed brains and nervous systems and a pain response system that is basically identical to that of mammals and birds.

PETA says that even though some people think of fish as "swimming vegetables", fish can not only suffer pain, but fear and anticipation of pain. They cite studies that show that "some fish use sound to communicate distress when nets are dipped into their tanks or they are otherwise threatened." In another study they summarized, fish not only grunted when electrically shocked, they grunted in fear as soon as they caught sight of the electrode used to shock them.

Other characteristics that PETA cites as proof that fish are like mammals and birds include:

- Fish can learn to avoid nets by watching other fish in their group
- Some fish gather information by "eavesdropping" on others
- Some fish use leaves as tools by laying eggs on the leaves and then using them to carry the eggs to a safe place
- Fish talk to each other with squeals, and other low-frequency sounds that humans can hear only with special instruments.
- Fish like to be touched and often gently rub against one another–like a cat weaving in and out of your legs.
- Some fish tend well-kept gardens, encouraging the growth of tasty algae and weeding out the types they don't like.
- Like birds, many fish build nests where they raise their babies; others collect little rocks off the seafloor to make hiding places where they can rest.
- Some fish woo potential partners by singing to them.

Finally, they quote marine biologist Sylvia Earle. "I never eat anyone I know personally. I wouldn't deliberately eat a grouper any more than I'd eat a cocker spaniel. They're so good-natured, so curious. You know, fish are sensitive, they have personalities, they hurt when they're wounded."

COMMERCIAL FISHING SAFETY D.V.D.S.

The U.S. Coast Guard's Commercial Fishing Vessel Safety Program has developed two DVDs on safety at sea.

The first one is titled **Rescue at Sea: A Guide to Helicopter Rescue and Dewatering Pumps.** The DVD shows the procedures involved when the U.S. Coast Guard responds with a helicopter to a vessel in distress. It includes information on rescues and medivacs, as well as dewatering pump delivery, assembly and use. This version is in English only.

The other is **Beating the Odds:** This one demonstrates various emergency onboard drills performed by a commercial fishing vessel crew. It takes the viewer through drills in response to fire, man overboard, flooding, abandon ship and more. This is provided in English, Spanish and Vietnamese.

Both tapes are free and can be ordered by calling the nearest Fishing Vessel Safety Coordinator's office, 1-800-884-8724 in Morgan City or 1-800-891-1197 in New Orleans.

FEDERAL SHRIMP PERMIT NUMBERS

The Gulf of Mexico Fishery Management Council now requires shrimpers who work in federal waters offshore to have a National Marine Fisheries Service (NMFS) permit. As of November 30, NMFS issued 2515 permits in 2004. Permit numbers are broken down below by vessel size class.

overall length less than 10 feet	0
overall length 10 feet or greater, and less than 20 feet	10
overall length 20 feet or greater, and less than 30 feet	74
overall length 30 feet or greater, and less than 40 feet	177
overall length 40 feet or greater, and less than 50 feet	222
overall length 50 feet or greater, and less than 60 feet	257
overall length 60 feet or greater, and less than 70 feet	709
overall length 70 feet or greater, and less than 80 feet	594
overall length 80 feet or greater, and less than 90 feet	436
overall length 90 feet or greater, and less than 100 feet	34
overall length 100 feet or greater, and less than 110 feet	1
overall length 110 feet or greater, and less than 120 feet	0
overall length 120 feet or greater, and less than 130 feet	0
overall length 130 feet or greater	1
TOTAL	**2515**

The requirement for the permit is widely viewed as the first step in developing limited entry management for federal water shrimping. It seems obvious that some or

many of the permits issued, especially those to very small vessels, are to people who purchased the permits to try to keep their "foot in the door" if a limited entry program is created.

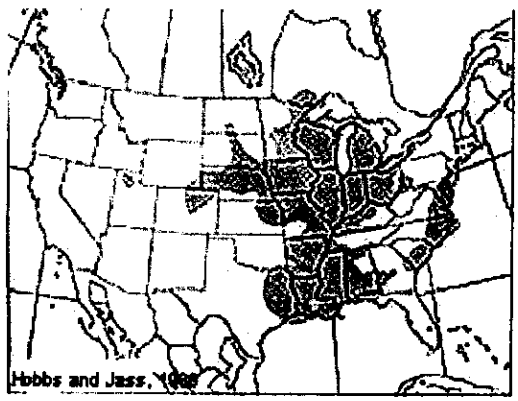
COFFIN CUTTER

Worldwide, scientists have identified over 450 species of freshwater crawfish. North America is crawfish headquarters with 353 species, with 95% of them found in the southeast. More than 30 species occur in Louisiana, and 10 of them are common. The most commonly recognized species are the red swamp crawfish *(Procambarus clarkii)* and white river crawfish *(Procambarus zonangulus).* Red swamp crawfish are about 90% of Louisiana's commercial harvest, with white river crawfish making up most of the rest. Both species will reach 5-6 inches length.

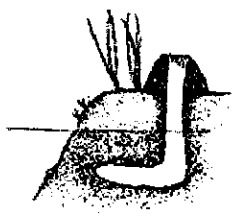
Another large species that is common, but seldom is seen, is the devil crawfish *(Cambarus diogenes),* also called the American mound building crawfish, thunder crawfish, or coffin cutter. Its scientific name refers to the Greek Philosopher, Diogenes, who was said to live in a tub. This crawfish spends most of its life in burrows, usually in low wet areas with a lot of clay in the soil. Although some reports indicate that the devil crawfish only leaves its burrow to find a mate and then later to release its young in water, others say that they commonly leave their burrow at night or in thunderstorms (hence the name "thunder crawfish") to feed on living and dead plant matter.

The name "coffin cutter" comes from the legend that this crawfish will burrow down to and into coffins to dine on human flesh. While it is a strong digger, sometimes making burrows 20 feet deep, and many south Louisiana cemeteries in low-lying areas are dotted with the mud "chimneys" that mark their burrows, there is no evidence that they enter coffins.

Devil crawfish are found in the Mississippi River drainage, into Ontario, Canada, and in a belt along the central Atlantic states. Their color varies, depending on where an individual comes from. In the northern part of its range, it is often brown or brownish-red, as well as green to blue. In Louisiana, live devil crawfish are usually a dark blue-green, occasionally almost black. They will have three noticeable orange-red stripes running the length of the tail and reddish highlights will be found on the head and tips of its massive claws.



Its large spade-shaped claws are a give-away for its lifestyle as a burrower. Crawfish fall into three groups, based on their burrowing activities. **Tertiary burrowers** make short simple burrows, usually less than three feet deep. The burrows may be in standing water. These species of crawfish have pointed heads, slender claws, and large, muscle-packed tails. Red swamp and white river crawfish are in this group.



Secondary burrowers have larger burrows, usually with two or three entrances, but only one major shaft. They spend more of their life in their burrows than tertiary burrowers, but since most of their burrows are near water, they will often move freely into the water, especially at night. These species have blunter heads, more spade-shaped claws, and smaller tails than tertiary burrowers.

The last group, the **primary burrowers,** includes the devil crawfish. They are the moles of the crawfish world and some only go into open water in the spring to release their young. Their burrows, often located far from standing water, can be elaborate, with many levels and entrances. Not all of the entrances will have mud chimneys. These crawfish have the bluntest heads, the widest claws, and the smallest, least meat-filled tails of all crawfish. Like other crawfish, they will burrow until they hit water, and they can dig as deep as 20 feet.

Crawfish do not live in the water in their burrows, because it has almost no oxygen in it. They use the water to keep their gills wet, which allows them to get oxygen from the air in the burrow. Even if the water level drops below the bottom of the burrow, the packed clay walls of the burrow keeps the air in the burrow saturated with humidity, allowing the crawfish to breathe.

Burrow chimneys, made up of sun-baked balls of clay, can become hard enough to dull lawn mower blades. They are considered nuisances on golf courses, maintained cemeteries, and household yards. Research done in Illinois shows that devil crawfish are very loyal to the burrows that they work so hard to build. Devil crawfish were marked when they came out of their burrows to feed and then tracked for two months. Over 82% of the crawfish used their same burrows. When a new crawfish was found in a burrow, it was larger than the previous crawfish, suggesting that the previous owner was out-muscled. Devil crawfish dig their burrows at night.

Devil crawfish, like other crawfish, are considered to be detritovores. They eat rotting plant matter that is covered with a protein-rich layer of bacteria and other microbes. Research indicates that at least 60% of their diet is vegetation, with the rest of their diet including worms, insects, snails, and dead animal matter. Interestingly, in the north part of its range, the burrows of the devil crawfish serve as living places for an endangered species of dragonfly.

Devil crawfish produce eggs in early spring. The female, which was fertilized by a male before laying the eggs, carries the eggs attached to "hairs" under her tail. The female brooding the eggs in the burrow must keep the eggs moist until they hatch. After hatching, the young crawfish will hold onto their mother until they have molted their shells two or three times.

Sources: *Crawfish — Louisiana's Premier Delicacy!* Jay Huner and Joe Black. Louisiana Conservationist, 43:3, 1991. *Devil Crayfish Fact Sheet.* Maryland Department of Natural Resources, Tree of Life Web Project, http://tolweb.org/tree?group=Cambarus_(Lacunicambarus)_diogenes&con-tgroup=Cambar...*Devil Crayfish.* Illinois Natural History Survey Reports.

No. 379, Spring 2004. *Burrow Fidelity and Foraging Behavior of the Devil Crayfish (Cambarus diogenes)*.J. Cashmore and D. A. Soluk. NABStracts, 2003. North American Benthological Society. *The Role of a Burrowing Crayfish in its Ecosystem: A Look at the Diet and Behavior of Cambarus diogenes*. Molly A. Tranel. Sixth Annual Graduate Student Symposium, University of Illinois. February 7, 2004.

BASS & CRAPPIE REGS CHANGE AT POVERTY POINT

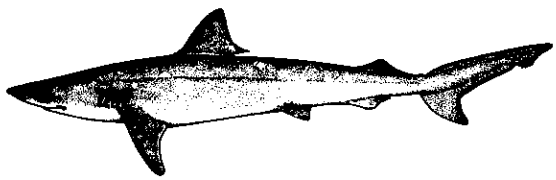
Adjustments in fishing regulations for black bass and crappie have been made for Poverty Point Reservoir in Richland Parish. The 2,785-acre lake was opened to anglers in April 2003 under a 14 to 17-inch slot limit with a five fish creel for black bass. The 14 to 17-inch slot limit was recommended by Louisiana Department of Wildlife and Fisheries (LDWF) biologists to ensure that the new fish population could become established.

With the success of the initial regulations and with the interest of Poverty Point anglers in trophy bass management, regulations for bass have now been changed to include a 15 to 19-inch slot limit with an eight fish creel limit. Only one bass over 19 inches can be included in the angler's daily creel. The change in creel regulations is intended to direct angler harvest to smaller bass in the population. According to LDWF fisheries biologist Mike Wood, harvest is a key factor in the success of any regulation. "At Poverty Point, we want to encourage harvest of smaller bass and allow larger bass to continue growing."

The daily creel limit for crappie in the lake has been reduced from 50 to 25 fish daily per angler. Although it is a young impoundment, Poverty Point Reservoir has already produced an outstanding crappie population. The creel change will not significantly change the total harvest, but will allow for more equal distribution of the catch among fishermen.

THE COMMON SHARK

At one time, virtually any small non-hammerhead-type shark was called a "sand shark" in Louisiana. While shark identification always will be difficult, many fishermen now know that the Atlantic sharpnose shark (*Rhizoprionodon terraenovae*), is the most common small coastal shark off the southeastern US and in the Gulf of Mexico.



The Atlantic sharpnose is a small shark, seldom growing larger than 10 or 12 pounds. It is brownish-gray in color, with a generic shark shape. What makes it fairly easy to identify is that each fish has a handful of thumbprint-sized light spots on each side of the fish. If properly handled, this shark has an excellent-tasting, firm, white flesh.

It and the bonnethead shark combined are the only shark species with the liberal recreational bag limit of 1 per person. For all other shark species legal to take, the recreational bag limit is one per vessel for all species combined.

Considering the abundance and importance of this shark, little recent biological information has been gathered on the species. In the late 1990s, two South Carolina biologists gathered 1,093 sharpnose sharks from commercial catches, and by catching them themselves with trawls, rods and reels and gill nets. Their intent was to update what was known about the shark's growth rate and reproductive biology.

Sharks have no bones, but rather a skeleton of calcium-reinforced cartilage. They have no otoliths (ear bones) to cross-section to count the growth rings. Nor do they have scales, from which ring counts can be made. Aging was done by cutting a very thin cross-section from one calcified vertebrae from the spine of each shark. Annual growth rings could be counted from the cross-section. Aging was attempted on 890 fish and 812 were successfully aged.

Fifty-three percent of the aged fish were females and 47% were males. Unlike for many boney fish, both sexes grew at the same rate. The oldest fish was a single 10 year-old female that was over 31 inches long. Because individual sharks have different-sized tail fins, all lengths recorded in the study were pre-caudal lengths (PCL) measured from the tip of the nose to the base of the tail on the body.

Sharpnose sharks were found to average 8.5 inches at birth. They grew rapidly at first, reaching an average size of 20.4 inches during their second year of life (considered to be age 1 since only one growth ring has been laid down). Growth rates were 4.0-4.3 inches the next year, 2.5-2.8 inches the year after and 0-1.8 inches per year after that. The smallest mature male in the study was 24.0 inches PCL. The smallest mature female was 20.3 inches PCL. By 24.4 inches PCL, all females were mature.

Females were most ready to mate in May and June. Males were most ready in April, although they were still capable of mating in May-June. Births of pups was highest from mid-May to early June of the next year. Litter size ranged from 4 to 8 and larger females had larger litters.

Previous studies have shown that shrimp are a major food item of the Atlantic sharpnose shark. Perhaps it is this diet that makes the species such good tablefare. To be at their best quality, sharks must be properly handled. Sharks have a body chemistry that holds urea in the flesh. Urea is what can give poorly handled sharks a "wet diaper" smell.

Fortunately, urea dissolves easily in water. Soaking shark meat in ice water for a couple of hours after cleaning ensures a good product if the shark was immediately and properly iced on the vessel after it was caught.

Source: *Life History of the Atlantic Sharpnose Shark (Rhizoprionodon terraenovae) (Richardson, 1836) off the Southeastern United States.* Joshua K. Loefer and George R. Sedberry. Fishery Bulletin 101(1). U.S. Department of Commerce. 2003.

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THE GUMBO POT

"Kickin Korn" Soup

This month's recipe comes to us from Larry Roussel who contributed "The Patriot", using **red** snapper, **white** shrimp and **blue** crabs, to us a few years ago. Corn soups are a big seafood tradition in south Louisiana. The only change that I made in Larry's recipe was that I substituted tasso for andouille because I prefer tasso in all my cooking. This recipe does have some "kick," so if you don't like spicy foods you might want to use Rotel (milder) rather than regular Rotel tomatoes. This has to be the simplest, fastest recipe we have ever printed, and like everything from Larry, it is delicious.

1	lb small peeled shrimp	3	cups of water
1	10-oz bag of frozen chopped onions bell pepper and celery	1	lb tasso cut to fingernail-size
		3	tbsp flour
3	11-oz cans of Mexicorn	1	tsp salt
1	10½-oz can of cream of shrimp soup	1	tsp black pepper
1	8-oz can of tomato sauce	1	tsp garlic powder
1	10-oz can of Rotel diced tomatoes & green chilies	1	heaping tbsp dried parsley flakes
		1	tablespoon Kitchen Bouquet

Put all ingredients into a large pot and stir to blend. Turn burner to high and stir often. When soup begins boiling, lower heat until soup boils at a slow roll. Cook 10 minutes, stirring occasionally. Serves 5 to 6.

Sincerely,

Jerald Horst
Professor, Fisheries