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> Research and Extension Programs Agriculture Economic/Community Development Environment/Natural Resources Families/Nutrition/Heatth 4-H Youth Programs

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THE LOUISIANA SHARK NURSERY

Louisiana scientists have determined that at least some of the state's coastal estuarine waters are important nursery grounds for some species of sharks. Nursery grounds are areas where females bear their young and the newborn sharks grow to be juveniles.

During a three-year period, biologists used gill nets with different mesh sizes in and near Timbalier Bay, in lower Terrebonne Parish. The bay is shallow, with low visibility water and a mud or mud-shell bottom. They captured 1,002 sharks of eight species and observed others caught by fishermen and by other biologists. Many of the sharks were released after it was determined whether they were newborns, young-of-the-year, juveniles or adults.

In the first year of the study, blacktip sharks were the most common caught followed by spinner, bull, finetooth, Atlantic sharpnose and a lone lemon shark. In the second year, blacktip sharks were again most abundant, followed by Atlantic sharpnose, bull, finetooth, bonnethead and scalloped hammerhead sharks. In the third year, blacktips were yet again the most common, followed by bull, Atlantic sharpnose, finetooth, bonnethead and scalloped hammerhead sharks.

Over the three-year period, blacktip sharks made up 56 percent of the catch. Atlantic sharpnose were 15 percent, bull sharks were 11 percent and finetooth sharks were 7 percent.

Young-of-the-year and newborns were collected for blacktip, Atlantic sharpnose, bull, finetooth and spinner sharks. Roughly, 80 percent of all the sharks captured in the study were newborns or young-of-the-year.

Different species used the area at different times. Blacktip sharks were found in May through September, but were most common in June and July. Spinner and finetooth sharks were found in August-September. Atlantic sharpnose sharks were caught from May through August each year. A few bull sharks were captured in almost all months sampled, but were most consistent in the summer months. Bonnethead, scalloped hammerhead and lemon sharks showed no pattern, probably because the numbers captured were too few.

Source: Shark Nursery Areas off Louisiana's Nearshore Coastal Waters: A Preliminary Review. Julie A. Neer, Bruce A. Thompson, Richard E. Condrey, Janaka A. De Silva, Gary W. Peterson, Kevin P, Barry, Jason K. Blackwell & Dawn C. Parnell. In Shark Nursery Grounds of the Gulf of Mexico and the East Coast Waters of the United States: An Overview. Edited by C.T. McCandless, H.L. Pratt, Jr. and N. E. Kohler. 2002.

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NEW RULES FOR COMMERCIAL REEF FISHING

NOAA Fisheries Service has published a final rule in the Federal Register implementing the approved regulatory actions in Amendment 18A to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The final rule is effective Sept. 8, 2006, with the exception of the vessel monitoring system (VMS) requirements, which become effective Dec. 7, 2006 (71 FR 45428).

The final rule will resolve several issues related to monitoring and enforcement of existing reef fish regulations. Measures include:

(1) Require a NOAA Fisheries Service approved VMS on board vessels with federal commercial permits for Gulf reef fish, including charter vessels/headboats that also have a commercial reef fish permit (VMS would be required 120 days after the final rule is published);

(2) prohibit vessels from retaining reef fish caught under the recreational size and bag/possession limits when commercial quantities of Gulf reef fish are onboard;

(3) adjust the maximum crew size onboard a vessel issued a certificate of inspection (COI) when the vessel has both commercial reef fish and charter vessel/headboat permits to the minimum crew size under the COI when the vessel is fishing commercially for more than 12 hours;

(4) prohibit the use of Gulf of Mexico reef fish, except sand perch or dwarf sand perch, as bait in any commercial or recreational fishery in the exclusive economic zone of the Gulf of Mexico, with a limited exception for crustacean trap fisheries;

(5) require owners and operators of vessels with Gulf of Mexico reef fish commercial or charter vessel/headboat permits to comply with sea turtle and smalltooth sawfish release protocols, possess on board specific gear to ensure proper release of such species, and comply with guidelines for proper care and release of incidentally caught smalltooth sawfish and sea turtles;

(6) revise the total allowable catch framework procedure to reflect current practices and terminology; and

(7) change the permit application process for all permits to an annual procedure, as well as simplify the income qualification documentation requirements for fisheries having income criteria.

Answers to frequently asked questions on VMS and endangered sea turtle and smalltooth sawfish release protocols can be found on the Southeast Regional Office's Web page (<u>http://sero.nmfs.noaa.gov</u>). Fishermen required to have VMS units on their vessels will receive letters from the Office for Law Enforcement (OLE), Southeast Region with information on VMS units, specifications, and reporting requirements. For specific questions on VMS, OLE can be contacted at (800) 758-4833.

RED SNAPPER IFQ'S IN THE WORKS

NOAA Fisheries Service is seeking public comment on Amendment 26 to the Fishery Management Plan (FMP) for the Reef Fish Fishery of the Gulf of Mexico (Amendment 26). The Gulf of Mexico Fishery Management Council submitted Amendment 26 for review, approval, and implementation by the secretary of commerce.

The amendment, if approved, would establish an Individual Fishing Quota (IFQ) program for the Gulf of Mexico commercial red snapper fishery. The intended effect of Amendment 26 is to reduce

overcapacity in the commercial red snapper fishery and to eliminate, to the extent possible, the problems associated with derby fishing in order to assist the council in achieving optimum yield from the fishery. "IFQ" is defined as "a federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person." Some details about the proposed program follow:

Eligibility for Initial IFQ Allocation

Initial eligibility would be restricted to persons who own a Class 1 or Class 2 license. Permanent resident aliens who currently own a Class 1 or Class 2 license would be included in the initial allocation subject to any other qualifications included in this IFQ program.

Initial Apportionment of IFQ Shares

Initial IFQ shares would be allocated proportionately among eligible participants based on the average annual landings associated with their current license(s). These data are available for the years 1990-2004 for some Class 1 license holders, 1998-2004 for Class 1 historical captains and 1998-2004 for Class 2 license holders.

Establishment and Structure of an Appeals Process

The regional administrator would review, evaluate, and render final decision on appeals. Filing of an appeal must be completed within 90 days of the effective date of the final regulations implementing the IFQ program. Hardship arguments would not be considered. Landings data from 1990 through 1992 are not subject to appeal. Landings records appeals for 1993-2004 would be based on NOAA Fisheries Service logbooks. If NOAA Fisheries Service logbooks are not available; state landings records or data that were submitted on or before June 30, 2005, can be used.

A total of 3 percent of the IFQ shares would be initially set-aside to be used to resolve disputes regarding eligibility until the appeals process is finalized.

Transfer Eligibility Requirements

IFQ shares/allocations can be transferred only to individuals/vessels with a valid commercial reef fish permit during the first five years of the IFQ program and U.S. citizens and permanent resident aliens thereafter. Eligible individuals must be U.S. citizens or permanent resident aliens.

Use it or Lose it: IFQ Shares or Allocations

There are no minimum landing requirements (i.e., use it or lose it provision) for retaining IFQ shares.

Vessel Monitoring Systems (VMS)

VMS would be required on all fishing vessels engaged in harvesting red snapper under the IFQ program. The purchase, installation and maintenance of VMS equipment must conform to the protocol established by NOAA Fisheries Service in the Federal Register. The purchase, installation and maintenance of the VMS equipment and communications costs would be paid for or arranged by the owner of the IFQ shares.

Cost Recovery Plan

All IFQ cost recovery fees shall be the responsibility of the recognized IFQ shareholder. The fee collection and submission would reside with the recognized IFQ dealer/processor. The fees would be calculated at the time of sale of fish to the registered IFQ dealer/processor after which the recognized IFQ dealer/processor would be responsible for submitting such fees to NOAA Fisheries Service. The collected fees would be submitted by the IFQ dealer/processor to NOAA Fisheries Service quarterly.

For all IFQ pounds landed and sold, the cost recovery fee (3 percent) would be based on the actual ex-vessel value of the red snapper landings.

Addresses and Dates

Copies of Amendment 26, which include a supplemental environmental impact statement, a regulatory impact review and an initial regulatory flexibility analysis, may be obtained from:

Gulf of Mexico Fishery Management Council 2203 N. Lois Avenue, Suite 1100 Tampa, FL 33607 813-348-1630; fax: 813-348-1711 gulfcouncil@gulfcouncil.org www.gulfcouncil.org

NOAA Fisheries Service has prepared a final supplemental environmental impact statement (FSEIS) for Amendment 26. The FSEIS and written copies of the NOA may be obtained from NOAA Fisheries Service at the above address. Electronic copies of the may be obtained from the Federal Register Web site at <u>www.gpoaccess.gov/fr/ index.html</u>.

Written comments for the NOA must be received no later than 5 p.m., Eastern time, on Oct. 1, 2006. Comments may be submitted using any of the following methods:

Email: 0648-AS67.NOA @noaa.gov; Include the following in the subject: 0648-AS67.NOA. Federal e-Rulemaking Portal: Follow the instructions at <u>www.regulations.gov</u>. Mail: Phil Steele, National Marine Fisheries Service, Southeast Regional Office, 263 13th Avenue South, St. Petersburg, FL 33701. Fax: 727-824-5308.

SEAFOOD HACCP/SANITATION COURSES OFFERED

The LSU AgCenter and Louisiana Sea Grant Seafood Technology program is offering instruction on seafood Sanitation Control Procedures (SCP) and Hazard Analysis Critical Control Point (HACCP) training courses in Baton Rouge on the LSU campus in September. The one-day SCP course is offered on Sept. 19, 2006, from 8:00 a.m. to 4:45 p.m. The three-day HACCP course takes place from September 20-22, 2006, starting at 8:00 am each day.

Both courses are sponsored by the Association of Food & Drug Officials, and students will receive certificates of completion from AFDO. The HACCP certificate is recognized as proof of training required by the FDA seafood HACCP regulation. The SCP training is not required, but covers key sanitation controls and monitoring that are covered by GMP and HACCP regulations.

The SCP course registration fee is \$90, and the three-day HACCP course registration is \$160, which includes refreshments but not meals nor lodging. For more information, contact Laura Savage, 225-578-5207, *Isavage@agcenter.Isu.edu*, or Jon Bell, 225-578-5190, *jonbell@agcenter.Isu.edu*.

HAVE A CIGAR

Mention a round scad to an offshore angler and you will probably get a blank look and a shrug. But mention a cigar minnow in the same company and watch his face light up at the thought of using this superb little baitfish.

Most Louisiana anglers have never seen a live one, usually getting theirs frozen in five-pound boxes. But round scad, *Decapterus punctatus*, can seasonally be found all over the Gulf of Mexico. Typically in schools, adults 5-8 inches long (cigar-sized), are concentrated and common off Florida's Gulf coast in the winter. In spring, they shift northward, with highest numbers off Mississippi and Alabama. By summer, they are most abundant off Louisiana and Texas, where they stay through the fall.



Cigar minnows are not minnows at all but rather are members of the large and diverse jack family, which includes everything from pompano to lookdowns to amberjacks. Like many jack species, they have a row of enlarged hard scales called scutes that run down each side of the fish.

Two other closely related, but larger scad are found in the Gulf, the redtail scad *Decapterus tabl*, usually called "speedy" or "speedo," an excellent bait in its own right, and the mackerel scad, *Decapterus macarellus*. The round scad can be separated from the other two by having 10-14 dark spots located along the row of scutes on each side. In the round scad, the row of scutes is also heavier and more sharply curved upwards. The redtail scad also has a bright red tail fin.

Cigar minnows spawn all over the Gulf from at least April through October, and perhaps all year long. Females lay from 21,000 to 146,000 eggs per spawn and they spawn repeatedly through the year. Both sexes mature at 5-6 inches long. They seldom live longer than three years and average 5.4 inches long at age-1, 6.4 inches at age-2 and 7 inches long at age-3.

Because they eat such tiny foods, zooplankton, mysid shrimp and especially crab larvae, they are difficult to catch on a hook. Virtually all the cigar minnows used for bait off Louisiana are caught in the eastern Gulf by purse seines and seines. Restrictions initiated by sports fishermen on the use of nets have reduced the availability of cigar minnows and increased their price.

While cigar minnows can be found in waters as cool as 54°F, they seem to prefer much warmer waters. They are most common in waters near and over 80°F. Numbers of cigar minnows increase with increasing water depths out to about 400 feet, then numbers drop off as the water deepens. Cigar minnows have been found as shallow as at 6-foot water depths and as deep as 1,200 feet.

Examinations of the stomachs of predator fish show why anglers like to use them for bait, as many species eat them. King mackerel seem to specialize on round scad, with the species making up a quarter of their diet. Spanish mackerel, bluefish and crevalle jacks also prey heavily on them.

Source: Species Profile of Round Scad <u>Decapterus</u> <u>punctatus</u> (Cuvier 1829). Steven P. Naughton, Carl H. Saloman and Rosalie N. Vaught. NOAA Technical Memorandum NMFS-SEFC-181. 1986.

ROCK SHRIMP

Six species of rock shrimp live in the Gulf of Mexico, the largest of which is the brown rock shrimp, Sicyonia brevirostris. Individuals of this species can grow to six inches long, but are more common as adults at 4-5 inches. Unless you have been on an offshore trawler, you may have never seen this shrimp. While they show up in seafood markets infrequently, they are very common in the diet of the red snapper. Anglers who find "little lobster-looking things" in the stomachs of the snapper they are cleaning are looking at rock shrimp.



Rock shrimp resemble the better-known brown and white shrimp in that they have a one-piece shell on their head and a flexible tail made of many joints of shell. But, instead of having the thin semiflexible shell of other shrimp, rock shrimp have thick, stiff, stonelike shells. Very short hairs cover their stubby bodies and tails. These hairs give rock shrimp shells a rough, gritty-feeling texture.

Brown rock shrimp are off-white to pink in color, darker on their backs than below. The color on their backs is often blotchy or vaguely striped and their legs are reddish-purple, with white bars.

They are a high-salinity-loving offshore species found in waters from 60 to 240 feet deep. Highest numbers are found at depths of 110-180 feet. The most important factor in determining where they are found is bottom type. They are almost never found on muddy bottoms, preferring fine to medium-grained sand. This same sand can make them very gritty if they are not heavily washed after being caught.

Brown rock shrimp seem to spawn year-round, with spawning peaking between November and January. Each female can spawn 2-3 times per year. More spawning occurs at full moon than new moons.

Each sex releases its eggs or sperm into the open water, where fertilization occurs. The eggs hatch in 24 hours into nauplii larvae. This stage is followed by seven other larval stages over the next 93 days, followed by a 29-day post-larval stage. Between 60 and 90 days later, they mature. Larvae die at salinities below 27 parts per thousand (full strength seawater is 35 ppt). Maximum life span is 20-22 months.

Brown rock shrimp eat jointed and round worms; clams; snails; tiny one-celled, shelled creatures called foraminifera; small crustaceans called tanaidaceans (at right, above) and even smaller pinhead-sized crustaceans, such as ostracods and amphipods (at right, below). Typically, rock shrimp are active at night, remaining buried in the sand during daylight hours.

While rock shrimp are found throughout the Gulf and south Atlantic, the only fishery specifically targeting them occurs in the south Atlantic, particularly the Florida east coast. While they can occasionally be purchased in local retail stores, usually the only Louisianans who regularly get them are those lucky enough to know an offshore shrimp fisherman who will save a batch for them.



tanaidaceans



ostracods and amphipods

They are easy to boil, with a very rich taste more resembling crawfish than shrimp. The hard shells that discourage many timid seafood diners are no problem for Louisiana folks used to peeling crawfish. After removing the head, the tail shell is simply given a firm side-to-side squeeze between the thumbs and forefingers of both hands. This breaks the shell and allows the meat to be removed easily.

THE GUMBO POT Louisiana Crab Cakes

Submitted by Chuck Wilson

1 egg

2 tbls mayonaise

1 tbls dijon mustard (adjust to taste)

dash of worcestershire sauce

Mix above together in a bowl.

Add 1 cup of Louisiana crab claw meat. Mix gently.

Hydrate about 3/4 cup of Pepperidge Farm herb dressing with 1/4 cup warm water.

Add dressing to crab mixture and mix gently.

Pat out cakes to desired size.

Chill for as long as you want — an hour works well.

Brown crab cakes by frying them in a nonstick frying pan with 1/4 inch of canola or vegetable oil, about 3-5 minutes per side over medium heat.

For more information, contact your local extension agent:

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