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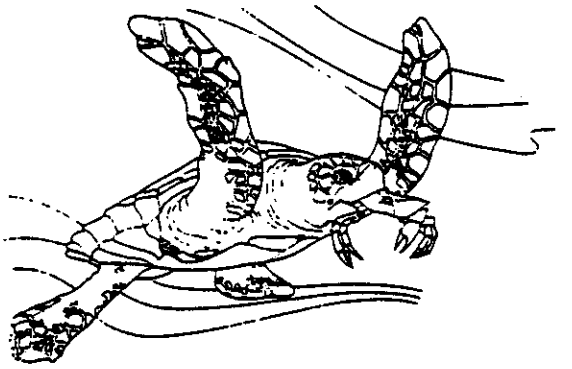
# SEA GRANT PROGRAM



# LAGNIAPPE

## KEMP'S RIDLEY SEA TURTLE NEST COUNT

After a huge 53% jump in the number of Kemp's ridley sea turtle nests on Mexican beaches in 1998, the number of nests dropped slightly in 1999. This turtle nests almost exclusively on one main (Rancho Nuevo) and several smaller beaches in Mexico, and its decline brought on the mandatory use of TED's in shrimp trawls in the effort to save it.

In 1947, an estimated 40,000 Kemp's ridleys arrived in one mass nesting event. By the mid 1980's, nest numbers had declined to 702. Its decline was primarily due to the collection of eggs on the beaches and the killing of the adults for meat and other products. Additional deaths were also caused by accidental catch in shrimp trawls.

| YEAR | NO OF NESTS | YEAR | NO. OF NESTS |
|---|---|---|---|
| 1978 | 924 | 1989 | 878 |
| 1979 | 954 | 1990 | 992 |
| 1980 | 868 | 1991 | 1155 |
| 1981 | 897 | 1992 | 1275 |
| 1982 | 750 | 1993 | 1184 |
| 1983 | 746 | 1994 | 1568 |
| 1984 | 798 | 1995 | 1938 |
| 1985 | 702 | 1996 | 2080 |
| 1986 | 744 | 1997 | 2387 |
| 1987 | 737 | 1998 | 3752 |
| 1988 | 842 | 1999 | 3600 |

Although the number of 1999 nests is down slightly from 1998, the number of hatchling (baby) turtles which were produced from the nests set a new record of over 225,000. This is a 22% jump over the 183,920 hatchlings produced in 1998.

Also, a record 16 nests were found on the Texas coast in 1999, including 11 on Padre Island National Seashore, 3 on Boca Chica beach and 2 on Mustang Island. This is 3 more nests than were found the previous year in Texas.

Last year, the National Fisheries Institute, representing the shrimping and commercial fishing industry in Mexico and the United States, constructed a new monitoring camp for the turtle at Tepehuajes, a nesting beach about 50 miles north of Rancho Nuevo. The National Marine Fisheries Service has committed funding since 1996 to support enhanced monitoring of nesting activities in Mexico, improvements to a research compound at Rancho Nuevo, and expanded educational programs.

"Recovery efforts for the Kemp's ridley sea turtle are a model for endangered species conservation,"according to Charlie Sanchez, Associate Regional Director for International Programs for the U. S. Fish and Wildlife Service. "Partnerships between government agencies and the private sector are making it happen."

The goal of the Fish and Wildlife Service is a nesting population of 10,000 nesting turtles per year before considering moving the official status of the species from endangered to threatened.

**ARE LARGER TED OPENINGS COMING?**

All five species of sea turtles in continental U.S. waters are protected under the Endangered Species Act, although the Kemp's ridley sea turtle was the species of most concern in the development of current turtle excluder device (TED) regulations. In order to be certified by the National Marine Fisheries Service (NMFS), a TED design must be 97% effective at releasing sea turtles. Regardless of the design, all TED's used must meet minimum dimensions on the size of the opening through which the turtle is released. In the Atlantic Ocean, the opening must be at least 35 inches wide by 12 inches high. In Gulf of Mexico, the minimum size is 32 inches wide by 10 inches high.

Now NMFS scientists have conducted a study which seems to show that these openings are too small to release loggerhead turtles, a larger species than the Kemp's ridley. The scientists analyzed size data taken from dead sea turtles found stranded on Gulf and south Atlantic beaches.

The width of the opening did not seem to be a major problem, as less than 1% of the dead turtles measured were wider than the 35-inch opening in the Atlantic and the 32-inch opening in the Gulf. The height of the opening was another matter. For all regions

combined, the percentage of stranded loggerhead turtles with a body depth that was more than the minimum TED height opening ranged from 33% to 47% annually between 1986 and 1997.

Some areas were much higher. In the western Gulf, the percentage ranged from 36% to 66%, and in the eastern Gulf, the range was from 83% to 96%. Many of these animals were still immature.

Green sea turtle standings were also examined, but a much smaller percentage of these animals were larger than the opening. None of the nearly 3000 stranded Kemp's ridley sea turtles measured were larger than the minimum required opening.

The northern sub-population of loggerhead turtles does not seem to be increasing and may be declining. Based on this and the analysis of stranded turtle sizes, NMFS scientists recommended that the opening dimensions of TED's need to be larger than the current minimum requirements and needs to be the same in the Gulf of Mexico and the Atlantic.

On December 16, NMFS convened a meeting at the NMFS Pascagoula Laboratory between their scientists, gear experts and selected commercial shrimp industry leaders to discuss the situation and their options.

Source: *Evaluation of TED Opening Dimensions Relative to Size of Turtles Stranding in the Western North Atlantic.* Sheryan P. Epperly and Wendy G. Teas. NMFS SEFSC Contribution PRD-98199-08. National Marine Fisheries Service. Sept. 1999.

**COASTAL BUSINESSES: GAMBLING AND SEAFOOD**

Louisiana's neighboring state of Mississippi has had a seafood industry since before the Civil War, and since 1992, a booming gambling industry on its coast. Dockside gambling was legalized by the state legislature in 1990, and by 1992, two of the state's three coastal counties, Hancock and Harrison, had approved dockside gambling.

The development of dockside gambling in coastal Mississippi brought great changes to the economies of the coastal counties. Casinos directly hired between 15,000 and 16,000 people and other casino-related industries employed another 14,000-15,000 people. Annual income received by casino employees averaged between $16,000 and $17,000 per person. Total annual wages paid by coastal casinos amounted to about $265 million and indirect industries paid out $250 million more in wages.

Other coastal businesses were impacted by the size and growth of the casino industry. Those businesses that provided products or services that complemented or went

with the gambling industry grew larger. Businesses that offered competing products or services declined or went out of business because of competition from the dockside gambling industry.

The seafood industry is one such local industry. Recently an economist with Mississippi State University conducted an evaluation of the seafood industry before and after casinos. He compared the size and production of the seafood industry in the 4 years (1988-91) before casinos to the 4 years (1992-95) after casinos. All dollar evaluations below are in deflated dollars which take inflation out of the picture. Finfish figures are for food fish only and do not include menhaden.

| ITEM | 1988-91 | 1992-95 |
|---|---|---|
| Shrimp - (million lbs) | 13.99 | 11.20 |
| Shrimp - (million $) | 20.19 | 15.27 |
| Oyster - (million lbs) | 0.12 | 1.62 |
| Oyster - (million $) | 0.27 | 1.42 |
| Finfish - (million lbs) | 2.90 | 2.11 |
| Finfish - (million $) | 1.44 | 1.26 |
| Blue Crab - (million lbs) | 0.59 | 0.29 |
| Blue Crab - (million $) | 0.20 | 0.12 |
| **Total - (million lbs)** | **17.60** | **15.22** |
| **Total - (million $)** | **22.10** | **18.07** |

The table above illustrates that shrimp, finfish, and blue crabs all experienced declines in landings and total value when the after-casino period is compared to the period before casinos. Oysters showed an increase, but not large enough to offset the decline in other landings. The total fishing fleet also declined from 1913 boats and vessels to 1821.

The researcher concluded that the decline in the size of the fleet and in seafood landings was due a decline in vessel support service businesses and seafood processing businesses associated with the expansion of dockside gambling.

| Item | 1988-91 | 1992-1995 |
|---|---|---|
| Processing plants | 38 | 32 |
| Processing workers | 1687 | 1134 |
| Wholesaling plants | 30 | 24 |
| Wholesaling workers | 142 | 109 |

As coastal states and communities attempt to develop their economies by attracting other businesses, impacts of some sort will be felt by traditional industries. Some impacts will be positive, while others will be negative, as the Mississippi study showed. Planning for coastal economic development will be most effective if impacts are considered ahead of time.

Source: *Economic Impact of Dockside Gaming on the Commercial Seafood Industry in Coastal Mississippi.* Benedict C. Posadas. Mississippi-Alabama Sea Grant Program Publication No. 95-015.

## NUTRIA MARSH DAMAGE

The loss of Louisiana's valuable coastal marshlands has multiple causes--subsidence (land sinking), river channelization, dredging, sea level rise, and many others. One cause identified in recent years is the large population of nutrias, large wetland rodents introduced into Louisiana in 1937. These animals consume large amounts of wetland vegetation, often down to the bare mud. Without vegetation to hold the land in place, it washes away.

The Louisiana Department of Wildlife and Fisheries Fur and Refuge Division has conducted aerial surveys of coastal wetlands in 1993, 1996 and again in 1998 to determine the extent of the problem.

During the 1998 survey, department biologists flew lines by helicopter, spaced 1.8 miles apart. The lines extended from the edge of the wooded swamps, south to the beginning of the salt marsh. Due to low nutria population density, salt marsh was not included in the survey. One observer was seated on each side of the helicopter to record nutria-caused plant damage.

The survey showed 170 sites with identifiable nutria damage. Damaged sites were most common in southeastern Louisiana. The parishes with the most damage are shown on the next page.

| Parish | Number of Sites | Percent of Total |
|---|---|---|
| Terrebonne | 69 | 41% |
| Lafourche | 24 | 14% |
| Jefferson | 22 | 13% |
| Plaquemines | 16 | 9% |
| St Charles | 9 | 5% |

Smaller amounts of damaged wetlands were located in Cameron, St Bernard, St John, Iberia, St Tammany, St Mary, and Vermilion Parishes. Only Orleans and Calcasieu Parishes had no damaged areas.

A total of 23,960 acres of coastal marshes were identified as being negatively impacted by nutria feeding activity. However, since observers could only scan about a quarter of a mile on each side of the helicopter, biologists estimate total damage to be 3 to 4 times larger than what was seen. Of special significance is the fact that 80% of the damaged areas were classified as having moderate or severe vegetative damage.

Obviously, the best control measure would be trapping the animals for their fur or meat. Nutria fur prices showed increases during the 1996-97 and 1997-98 trapping seasons, primarily because of improved demand in China and Russia. Unfortunately, demand and prices for nutria fur dropped during the 1998-99 season due to financial problems in both countries.

Currently, several agencies and groups are working hard to develop a Louisiana market for nutria meat. Any increase in demand would provide some incentive for fur trappers to harvest more nutria.

Source: *A Survey of Nutria Herbivory Damage in Coastal Louisiana in 1998.* Noel Kinler, Greg Linscombe and Steve Hartley. Louisiana Department of Wildlife and Fisheries. 1999.

**PROMOTING NUTRIA**

The Jefferson Parish Marine Fisheries Advisory Board has taken another step in its two year effort to promote nutria for human consumption. This program involves well-known WWL outdoor radio personality Don Dubuq and is tied to Dubuq's fish and game recipe contest done at remote broadcasts from various Winn Dixie grocery stores between Lafayette, Louisiana, and Gulfport, Mississippi.

At each broadcast site, pecan smoked nutria/pork sausage samples are provided free to the public. Phillipe Parola, President of the Louisiana Culinary Institute, is the on site chef and recipe expert during samplings. Each Winn Dixie also has nutria meat for

sale during the broadcast. The promotion is taking place over a 3 month period at Winn Dixies at the following locations.

| | | |
|---|---|---|
| November 11, 6 p.m.-10p.m. | **Chalmette,** | 3300 Paris Rd. |
| November 13, 10 a.m.-1p.m., | **Lafayette,** | 2723 W. Pinhook |
| November 20, 10 a.m.-1p.m., | **Walker,** | 28145 Walker Rd. |
| December 3, 3 p.m.-6 p.m., | **Belle Chasse,** | 2112 Belle Chasse Hwy |
| December 4, 10 a.m.-1 p.m | **Houma,** | 1815 Prospect |
| December 10, 3 p.m.-6 p.m., | **Kenner,** | 2104 Williams Blvd. |
| December 11, 10 a.m.-1 p.m., | **Prairieville,** | 17682 Airline Hwy. |
| December 17, 3 p.m.-6 p.m., | **Metairie,** | 5901 Airline Hwy. |
| January 8, 10 a.m.-1 p.m., | **Zachary,** | 5005 Church St. |
| January 14, 3 p.m.-6 p.m., | **Arabi,** | 7330 W Judge Perez |
| January 15, 10 a.m.-1 p.m., | **Thibodaux,** | 375 N. Canal Blvd. |
| January 21, 3 p.m.-6 p.m., | **Slidell,** | 2985 Gause Blvd. |
| January 22, 10 a.m.-1 p.m. | **Lafayette,** | 3803 E. Moss St. |
| January 29, 10 a.m.-1 p.m., | **Baton Rouge,** | 10974 Joor Rd. |
| February 4, 3 p.m.-6 p.m., | **Mandeville,** | 619 N. Causeway |
| February 5, 10 a.m.-1 p.m., | **Gulfport,** | 1444 East Pass Rd. |

According to Marine Advisory Board member Robbie Walker, who provided the spark for this effort, "This project is designed to both create public demand and provide an efficient supply line for wholesome processed nutria meat for the public." Walker and fellow board member Art Cormier have jointly provided coordination for the Marine Advisory Board's nutria promotion project. Funding for the purchase of the nutria sausage was provided by the Louisiana Department of Wildlife and Fisheries through funding from the Coastal Wetlands Planning, Protection and Restoration Act (Breaux Bill). Walker may be contacted at 225/756-5225 for more information.

## RECORD BOOKS AND TAX EXEMPT FORMS

Over the years, many of you have used the Extension Service's *Commercial Fishermen's and Trapper's Record Books* to keep a record of your expenses and earnings. With the new year upon us, this is a good time to get your new record book.

Also available are sales tax exemption applications for commercial fishermen. If you would like an application or record book, call, write, or come by my office in Marrero.

## RECREATIONAL LICENSE TRENDS

Like commercial fishing, recreational fishing is considered an important economic activity. One way to gauge changes in the fishery is by studying license sales trends. The

parishes with largest sales of basic recreational fishing licenses for the 1998-99 license year were Jefferson (53,543), East Baton Rouge (36,398), Calcasieu (30,072), Lafourche (29,248), Terrebonne (26,373), and St. Tammany (23,534).

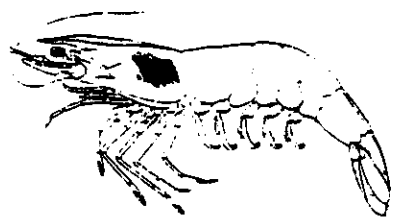
The table below shows statewide sales of saltwater recreational license, and basic recreational license sales for the state and the metropolitan New Orleans-area parishes.

| License Year | Statewide Saltwater | Statewide Basic | Orleans Basic | Jefferson Basic | St.Tammany Basic | St. Bernard Basic | St. Charles Basic | Plaquemines Basic |
|---|---|---|---|---|---|---|---|---|
| 98-99 | 297,367 | 559,090 | 5,797 | 53,543 | 25,534 | 12,547 | 5,016 | 9,240 |
| 97-98 | 284,152 | 557,947 | 5,498 | 54,765 | 21,108 | 12,458 | 5,203 | 9,382 |
| 96-97 | 270,940 | 525,606 | 7,472 | 54,206 | 21,079 | 11,239 | 5,157 | 8,669 |
| 95-96 | 296,959 | 592,942 | 8,924 | 57,632 | 22,827 | 12,304 | 5,559 | 10,086 |
| 94-95 | 280,360 | 564,606 | 10,352 | 57,409 | 21,259 | 12,343 | 6,042 | 8,876 |
| 93-94 | 265,759 | 553,899 | 11,492 | 54,200 | 20,285 | 11,606 | 5,798 | 7,899 |
| 92-93 | 265,373 | 534,834 | 11,784 | 53,257 | 20,098 | 11,219 | 5,768 | 7,375 |
| 91-92 | 267,445 | 565,253 | 11,652 | 50,531 | 16,769 | 10,533 | 6,230 | 7,420 |
| 90-91 | 272,121 | 518,742 | 11,053 | 45,801 | 15,606 | 7,809 | 5,551 | 6,978 |
| 89-90 | 270,697 | 500,578 | 12,371 | 46,818 | 14,573 | 8,166 | 4,977 | 6,763 |

One thing that sticks out immediately is the steady decline in basic recreational fishing license sales in Orleans Parish and the increases in license sales in the suburban parishes of Jefferson, St. Tammany, St. Bernard, and Plaquemines. Only in St. Charles Parish have license sales remained stable. Of these four parishes, St. Tammany has shown the largest increase at 61.5 percent. License sales seem to have leveled off in Jefferson and Plaquemines in recent years, however St. Tammany and St. Bernard are still showing growth in sales.

Statewide, basic recreational fishing license sales increased 11.7% over the ten year period. A big surprise to me was that saltwater recreational license sales increased by only 9.8 percent, a smaller increase than I expected, and less than the growth in basic license sales.

## BLACK GILL DISEASE IN SHRIMP



Shrimp, like any other animal, have diseases and parasites, some serious, some not so serious. In the fall of 1999, Barataria shrimper Rickey Matherne, brought in for diagnosis some brown shrimp caught offshore of Texas

that had a heavy black discoloration in the area of their gills in their heads. At first glance, they looked like shrimp taken from a tow that had dug mud from the bottom. After washing them several times, the black discoloration from the head did not improve and Matherne became concerned that this may be one of the exotic shrimp viral diseases that have been reported in recent years. Matherne noted that almost all of the shrimp in the catch had black gills.

The shrimp were sent for diagnosis to Dr. Robin M. Overstreet, a well-known fisheries parasite and disease expert at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi. In spite of the fact that the shrimp were frozen, Overstreet was able to identify the parasite as the microscopic protozoan *Hyalophysa chattoni,* or a closely related relative. The common name for the disease is "black gill disease". These tiny parasites have a complicated and not-well-understood life cycle.

It is known that the disease does not have a serious effect on the infected shrimp. The black coloration on the gills is not the actual parasite, but rather is a deposit of heavy levels of dark pigments in the gills by the shrimp in reaction to the parasites' presence.

Although these shrimp were caught offshore, it is very likely that the parasites were picked up in inshore waters. When shrimp shed their shells to grow, they usually rid themselves of many of these parasites because the outer layer of the gills is shed along with the rest of the shrimp's shell.

Overstreet stated that the levels of infection in the shrimp that Matherne caught were much heavier than is usually seen. Overstreet also noted that he and other scientists have seen very heavy infections of black gill disease in shrimp from the Galveston Bay, Texas area this year.

## CYPRESS RESEARCH

If any plant could serve as the emblem for Louisiana wetlands, it would be the southern baldcypress (*Taxodium distichum*). Most of Louisiana's cypress forests were logged-out after the turn of the century and in much of these forests, cypress regrowth has not occurred. Some of this may be due to heavy nutria populations, which feed on young cypress trees, but much of it seems to be due to saltwater intrusion.

Additionally, cypress trees face increasing competition from the non-native Chinese tallowtree (*Sapium sebiferum*). Besides being a vigorous fast-growing plant, research indicates that the tallowtree can tolerate saltwater flooding better than the baldcypress.

Scientists at the US Geological Survey National Wetlands Research Center have been conducting work to develop a more salt-tolerant cypress tree that can be used to restore cypress tree stands to areas impacted by increased salinities.

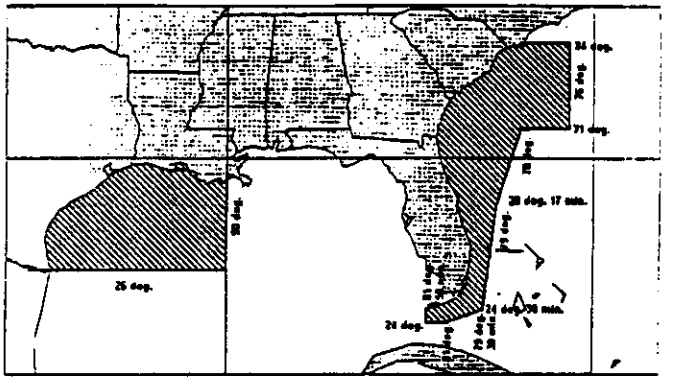
The researchers collected seeds from cypress trees standing in brackish and fresh waters from Louisiana, Mississippi and Alabama. The seedlings produced from the seeds were exposed to waters of different salinities. The results showed that some cypress trees do indeed have a higher tolerance for salinity than others. Some seedlings were also transplanted into saltwater-impacted wetlands. There, trees will be monitored over a period of time for survival and growth.

Source: *Salt Tolerance of Southern Baldcypress.* USGS FS 092-97. U. S. Geological Survey, National Wetlands Research Center.

## HANG COORDINATES AVAILABLE FOR SHRIMPERS

Peggy Rooney, with the Louisiana Fishermen's Gear Compensation Fund has provided my office with the Loran coordinates of 200 hangs on which claims were paid for damaged gear between 1995 and 1998. Anyone who would like a copy of these coordinates may call, write or come by my office in Marrero.

## POSSIBLE LONGLINE CLOSURE



The National Marine Fisheries Service (NMFS) has announced a proposal to close sections of the Gulf of Mexico and Atlantic Ocean to pelagic (off-bottom) longlining. NMFS is proposing this rule to reduce bycatch of finfish, turtles, marine mammals, and sea birds. Under the proposal, the Gulf of Mexico area cross-hatched in the map on the right would be closed from March 1 through September 30 annually. The area in the south Atlantic would be closed year-round.

NMFS is taking comments on how the boundaries and size of the closed areas may be modified to reduce impacts on turtles and billfish, and on people as well. The deadline to submitting comments on this proposal is February 11, 2000. They should be sent to Rebecca Lent, NMFS, 1315 East-West Hwy, Silver Spring MD 20910. Comments may also be sent by FAX to 301/713-1917. No e-mail or Internet comments will be accepted.

Public hearings will be held in January and February, but the exact dates have not been announced yet.

## COASTAL STEWARDSHIP AWARDS

The Coalition to Restore Coastal Louisiana is now accepting nominations for its fifth annual Coastal Stewardship Awards. These awards are given in recognition of outstanding contributions to restore and preserve Louisiana's coast. The program is designed to recognize people for their efforts on behalf of coastal Louisiana. Competition is limited to eight categories: Citizen Advocate (Adult), Citizen Advocate (Youth), Professional, Media, Educator, Organization, Distinguished Achievement, and Director. Each nomination must contain a nomination form, a letter stating the nominee's specific contributions, and documentation of those contributions. All entries must be received by March 1, 2000.

For more information or a nomination form, call the Coalition to Restore Coastal Louisiana at 225-344-6555 or toll free at 1-888-LA-COAST.

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## THE GUMBO POT
### Crawfish Fettuccini

This month's recipe comes to us from Michelle McKeon, owner of Silent World Aquariums in Metairie. Last year she shared her crabmeat quiche recipe with us. This recipe is as good as her last one, especially if you are a cheese lover.

- 3 sticks butter
- 1 large onion, chopped
- 1 bell pepper, chopped
- 1 large stalk celery, chopped
- ¼ cup flour
- 2 lbs crawfish tails
- 1 pint half & half
- 1 lb mild jalapeno or Mexican Velveeta cheese
- 16 oz fettuccini pasta

Saute onion, bell pepper and celery in butter until soft. Add flour and crawfish and mix. Add half & half and cheese. Cook over medium-low heat until cheese melts into sauce Boil fettuccini noodles in salted water, drain, and add to mixture. Transfer to a buttered casserole dish. Cover and bake at 350 degrees for 15 minutes. Serves 8

Sincerely,

Jerald Horst
Area Agent (Fisheries)
Jefferson, Orleans, St. Charles , St. John

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