HYPOXIC ZONE ACTION PLAN

Action to reduce the size of the hypoxic area (often called the Dead Zone) in the Gulf of Mexico has taken another step forward with the release of an Action Plan by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force. The hypoxic zone is an area in the Gulf that develops seasonally and has oxygen levels low enough to kill or weaken bottom sea-life that can't move away from it. Although the hypoxic area was much smaller in the low river discharge year of 2000, at 4,400 square kilometers (1,760 square miles), the 1996-2000 average was 14,128 square kilometers or about 5,651 square miles.

Areal Extent of Hypoxic Zone 1985 - 2000

The existence of the hypoxic zone in the Gulf has been blamed on too many plant nutrients being discharged into the Gulf of Mexico by the Mississippi and Atchafalaya Rivers. While certain levels of the nutrients, primarily nitrogen but also phosphorus, are important for growth of the microscopic algae that are the basis for the marine food chain, very high levels may cause problems. An overabundance of nutrients can cause too much

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The LSU Agricultural Center is a state-wide campus of the LSU System and provides equal opportunities in programs and employment. Louisiana State University and A. & M. Colleges. Louisiana parish governing bodies, Southern University, and United States Department of Agriculture cooperating.
algae growth, which in turn may rob bottom waters of oxygen when the algae finally die and sink.

The Action Plan concludes that most of the high levels of nutrients coming down the rivers are due to human activities, especially discharges from sewage and industrial wastewater plants and storm water runoff from city streets and farms. High nitrogen loads from runoff come from Iowa, Illinois, Indiana, southern Minnesota, and Ohio. Also, automobiles and power plants discharge nitrogen into the air, which are brought back to earth by weather.

The Action Plan states that the two main approaches to reduce hypoxia appear to be reducing the nitrogen entering streams and rivers and increasing the ability of natural processes to remove nitrogen from the system. According to the plan, even small reductions in nitrogen loads in the rivers will have a positive effect on marine life. The goal stated in the plan is to reduce, by the year 2015, the hypoxic zone to less than 5000 square kilometers (2000 square miles).

The Task Force that developed the Action Plan recognized that there are no simple solutions and that it is difficult to predict what actions will produce what results. They also recognized that it may take years to produce improvements in the Gulf. The strategy of the Action Plan is to encourage actions that are voluntary, practical and cost-effective. They also want to use existing programs like those created by the Farm Bills and the Water Resources Development Acts and to work with current rules and laws rather than create new ones.


JET SKI WARS

Jet skis, or as they are more properly known, personal watercraft, are certainly the most controversial of all boats. Owners love them; they are the number one selling boat type in America. Most other people don’t seem to like them as much though, especially owners of more traditional vessels. Laws restricting personal watercraft (PWCs) are increasing.

In April 2000, the National Park Service announced a ban on PWCs at 66 of its sites, but allowed continued use at 21 parks, including 10 national recreation areas where water sports had been a primary purpose. The action wasn’t enough for the Bluewater Network, a San Francisco-based environmental group with ties to the Earth Island Institute. They sued, contending that PWCs damage the environment, endanger public health and
safety, and harm wildlife. In December, the National Park Service settled with the Bluewater Network by extending the ban on PWCs.

The action sparked a strong reaction from the Personal Watercraft Industry Association (PWIA). Monita Fontaine, Executive Director of PWIA stated that "This underhanded settlement, reached behind closed doors in the eleventh hour of a lame duck administration is sneaky, discriminatory and patently unfair." Fontaine said that PWIA could be expected to contest the settlement.


FISHING TOURNAMENT BAN

The American Sportfishing Association (ASA), a national non-profit trade organization representing the recreational fishing industry, has come out strongly against a proposed ban on fishing tournaments within the National Wildlife Refuge System by the U.S. Fish and Wildlife Service. During the public comment period, which ended on March 19, ASA, tournament sponsors, and industry sponsors submitted comments highly critical of the proposal. ASA stated that only if tournament and non-tournament fishing were found to be incompatible, should drastic action such as a ban be considered. Also further upsetting the recreational industry was what they felt was a complete lack of consultation with the industry before the ban was proposed.

ANOTHER BOATING BAN

Recreational fishermen/boaters have certainly been faced with a number of challenges recently. The article below is taken verbatim out of the March 15, 2001 Sarasota Herald-Tribune newspaper of Sarasota, Florida.

Boaters Protest Proposed Ban
CCA objects to manatee-protection measures

Recreational boaters are learning how commercial fishermen felt in 1994 when sport-fishermen and boaters sponsored a successful campaign to ban gillnets. On March 1, more than 1,000 boaters packed the Charlotte County Auditorium to protest potential new manatee-protection rules proposed by state officials. Ironically, many in the audience belonged to the group, now called the Coastal Conservation Association of Florida, which sponsored the constitutional net ban.
Some believe the rules will treat boaters as pariahs in the struggle to protect the manatee, which is an endangered species, from collisions with boats. Although a recent census tallied a record 3,276 manatees, collisions with boats remain the primary man-made cause of death, accounting for about 30 percent of manatee mortalities.

As a result of a proposed settlement of a lawsuit filed by a coalition of 19 environmental, animal welfare and public interest groups, the state Fish and Wildlife Conservation Commission plans to designate a network of manatee refuges and sanctuaries. Far more sweeping than no-wake and boat-speed zones, the rules would dramatically limit public access in areas frequented by manatees, including Turtle Bay in Charlotte County.

In the sanctuaries, “all waterborne activities,” even wading, would be banned to provide “safe havens” for manatees. Pansy Bayou on Lido Key in Sarasota County already is such a sanctuary.

Despite the boaters’ objections, regulating boat speed and traffic remains the most practical way to reduce manatee deaths. Little can be done about deaths from natural events like red tides and freezing weather.

If boaters see such rules as overly restrictive in areas where no manatee deaths have been recorded, they should work with state officials to develop rules that protect manatees while preserving reasonable public access. Otherwise, they may find themselves in the same shoes as commercial fishermen—excluded by broad fiat.

EXPANDING FARMERS MARKETS WANT MORE FISH PRODUCERS

Building on its great success at the Crescent City Farmers’ Markets in New Orleans, the Loyola Economics Institute will be adding commercial fishermen and fish farmers to the Covington Farmers’ Market in Covington and the Red Stick Farmers’ Market in Baton Rouge. The main requirements are that interested individuals must be the actual producers of the seafood and if they are a commercial fishermen, they must be licensed as such.

The effort in Covington is in partnership with the Louisiana Seafood Promotion and Marketing Board and its goal is to provide better markets to fishermen affected by the last opening of the Bonnet Carré Spillway. Although others may apply, special preference will be given to Lake Pontchartrain Basin fishermen, because of federal funding requirements. Spots in the Baton Rouge market are open to all applicants equally.

Seafood producers who have an interest in either market may get first hand information by coming to the currently operating markets in New Orleans and talking to the
commercial fishermen already in these markets. They operate each Saturday from 8 a.m. to 12 noon at 700 Magazine St., and each Tuesday from 10 a.m. to 2 p.m. at 200 Broadway in Uptown New Orleans. People interested in either the Covington or Baton Rouge Market may call Kay Roussell at the Loyola Economics Institute at 504/861-5898.

Six spots are open in each market. The Baton Rouge market operates on Saturday mornings and Tuesday afternoons. The Covington market is open on Saturday mornings and Wednesday afternoons.

SHRIMP NEWS FROM NEXT DOOR

On August 31, 2000, the Texas Parks and Wildlife Commission took action to approve massive changes in the way shrimp are managed in their state. Some of the approved provisions were as follows:

- Increase shrimp nursery areas (no-shrimping areas) from 12% to 17% of bay waters.
- Increase bait shrimping opportunities by increasing bait bays from 34% to 39%.
- Lengthen the bait shrimping season to May through October by adding the month of May.
- Shorten the fall bay season by 15 days, ending on November 30.
- Establish a Northern Shrimp Zone in the Gulf from the Texas/Louisiana border down to the Corpus Christi Fish Pass, from the beach out to 3 miles. In this zone, vessels can use no more than two trawls with a total of 130 feet of headrope (measured from the rear of one otter door to rear of the other otter door).
- For the area from Corpus Christi Fish Pass to the Texas/Mexico border, form the beach out to 5 nautical miles, no shrimping will be allowed from December 1 to the summer Gulf season opening on July 16, 2001. During the open season, vessels are limited to two trawls with a total of 130 feet of headrope from the beach out to 3 miles.
- No nighttime shrimping will be allowed from the beach out to 5 miles in either area.
- Set state TED rules to match federal rules (effective September 1, 2001).
- Increase the net size allowed for taking seabobs from 25 feet to 42 feet.
- Lengthen the winter Gulf closure by 30 days to December 1 - February 15.
- Require bycatch reduction devices (BRDs) in all trawls except bait shrimp and recreational trawls (effective September 1, 2001). The Texas Parks and Wildlife Department will pay for the first set of BRDs for $150,000.
- Commercial shrimp vessel and business licenses will increase by 50%, but not over $100 each (effective September 1, 2001). The $600,000 raised will be combined with the money raised from the temporary $3 surcharge on Saltwater Sportfishing Stamps to provide more money for the voluntary inshore shrimp license buyback program.
Now the Texas Legislature is considering several bills which would roll back all or change large parts of the program, if passed. Senate Bill 810 by Senator Eddie Lucio of Brownsville and House Bill 3302 by Representative Jim Solis of Harlingen would scrap the entire management program and roll the rules back to where they were on June, 2000. Both bills would prohibit the Texas Parks and Wildlife Commission from adopting any new shrimping rules unless authorized by the Texas Legislature or required by federal law. Both bills also require the Texas Parks and Wildlife Department to conduct an economic analysis of shrimp regulations and a study of the economic and biological health of the shrimp industry.

A third bill, HB 937, also by Solis, would severely restrict the ability of the Texas Parks and Wildlife Commission to close coastal areas to shrimping. In addition to the bills in the legislature, both the Texas Shrimp Association and the inshore commercial fishing association, PISCES, have filed law suits against the Commission over the rules.

Louisiana shrimpers planning to travel to Texas for the Texas season opening should stay informed on the progress of this issue.

GOURMET’S DELIGHT

One of Louisiana’s most wonderful seafoods is also one of Louisiana’s least known, the gulf stone crab, *Menippe adina*. It is a very closely related species to the famous Florida stone crab, *Menippe mercenaria*. The only differences are a slight but noticeable color difference, and a slightly smaller average size, although stone crab claws over a half a pound do occur in Louisiana.

Unlike their cousin the blue crab, only the claws are eaten from stone crabs. The taste is rich and sweet, so much so that even many dedicated Louisiana “spice-heads” prefer them boiled in only lightly-salted water. Typically, the meat is dipped in melted butter and then eaten. Stone crab claws are at their best quality when not iced or refrigerated until after they are boiled. Cooling them before cooking will cause the meat to stick to the shell, although they still taste fine.

For some reason, stone crab populations seem to be gradually increasing in Louisiana. Severe freezes, such as the great freeze of 1989, knock their numbers back for a while, but a few years after the freeze they seem to be more plentiful than ever.

Because of these increasing numbers, the Louisiana Seafood Standards of Identity recently asked the LSU AgCenter’s Sea Grant agents to explore the possibility of expanding the market through Florida seafood companies. A total of 51 Florida dealers were surveyed and 9 responded that they were positively interested in purchasing
Louisiana stone crabs. In Louisiana, 17 dockside buyers have expressed interest in buying stone crabs from fishermen.

**Regulations**

Regulations for the harvest of stone crabs are quite simple. The minimum claw size is 2¾ inches, propodus length. Both claws can legally be taken if they are large enough to be legal. Whole stone crabs may not be landed, but possession on the water is legal. Typically, crabbers break the claws from the crabs on their way in, returning the animal to the water alive. A tolerance of one whole stone crab per crate of blue crabs is allowed.

**LONGLINE/SEABIRD PLAN OF ACTION**

The National Marine Fisheries Service (NMFS) has announced the release of a final National Plan of Action for reducing the number of accidental deaths of seabirds caused by longline fishing. The national plan follows the development of an international plan adopted by the United Nations Food and Agricultural Organization Committee on Fisheries.

According to the plan, most seabirds taken during longline operations are attracted to the baited hooks when the gear is being set. These birds become hooked at the surface and are dragged underwater where they drown. The purpose of the plan is to reduce seabird bycatch in those fisheries, where such bycatch is determined to be a problem. The Plan of Action uses a step-by-step approach:

I. **Assessment.** Longline fisheries in each region of the U.S. will be assessed by NMFS, with support from the U.S. Fish and Wildlife Service (FWS) and the regional fishery management councils to determine how much interaction exists between the fishery and seabirds. If the assessment shows that a seabird bycatch problem exists, the steps below must be taken within 2 years.

II. **Data Collection.** Data collection programs, including the use of onboard observers, should collect reliable data on the catch of seabirds in the fishery.
III. **Prescription of Mitigation Measures.** Regulations, such as fishery management plan amendments, should be developed to reduce seabird bycatch in the fishery. The regulations should be appropriate, practicable, efficient and cost-effective for the fishing industry.

IV. **Research and Development of Mitigation Measures and Methods.** NMFS and the regional fishery management councils should consider plans for research and development on devices, practices and technologies to prevent seabird bycatch, to be followed by research to evaluate their effectiveness.

V. **Outreach, Education, and Training About Seabird Bycatch.** NMFS and the regional fishery management councils should educate fishermen, fishing associations and other groups about the need to reduce seabird bycatch, promote the actions of the National Plan of Action, and provide information about technical or financial assistance for reducing bycatch of seabirds.

VI. **Reporting.** NMFS and the regional management councils must each prepare a complete annual report on the status of seabird bycatch for each longline fishery.

VII. **Collaboration between NMFS and FWS on Seabird Issues.** Both agencies will work together to review seabird bycatch reduction programs, conduct research and educational programs, and make recommendations for changes.


**MPAs GAIN MORE SUPPORT**

A group of 160 marine scientists from around the world signed off in February on the need for Marine Protected Areas (MPAs). In 1997, the American Association for the Advancement of Science (AAAS) formed a team to study the effects of marine reserves on fish populations. The team’s study of more than 100 reserves from around the world indicated that after one to two years of protection, the areas averaged a 91% increase in fish numbers, a 192% increase in total weight of fishes, and a 23% increase in the number of species.

According to Jane Lubchenco of Oregon State University, “All around the world there are different experiences, but the basic message is the same: marine reserves work, and they work fast. It is no longer a question of whether to set aside fully protected areas in the ocean, but where to establish them.” Lubchenco is past president of AAAS and leader of the three-year team study.
The statement released by AAAS recommends the use of networks of reserves, rather than single isolated reserves. Dr. Stephen Palumbi of Harvard University agrees, stating that a network or "protective necklace" of no-take marine protected areas is necessary because almost all species of marine life have eggs and larvae (babies) that drift with ocean currents. The individual reserves in the network should be spread over an area large enough, according to Palumbi, to provide areas for the fish developing from these drifting eggs and larvae to settle on. This may cover a 300 to 600 mile area.


WHO SAYS LAWS DON'T HELP?

At times it seems to many fishermen that they face an unending number of new laws that don't seem to do much good. But, sometimes they do work. A good case in point are two pieces of legislation passed by the Louisiana Legislature in 1997. Act 302 required the use of escape rings in crab traps to release small crabs. Act 1238 provided that people convicted of possessing double or more the allowable percentage of undersized crabs or of crab trap theft shall have their license suspended for 6 months on first offense, 12 months on second offense, and permanently on third offense.

Captain Jeff Mayne of Department of Wildlife and Fisheries Enforcement Headquarters provided the above two graphs. They almost speak for themselves. In the three years before the legislation, undersize crab violation cases averaged 364 per year. In the three years after, the average was less than 67 per year. Theft of trap violations...
declined from an average of nearly 22 per year to a little over 13 per year. The reduced number of violations was not due to reduced opportunity. Commercial landings averaged about 7.5 million pounds per years higher after 1997 than before. Mayne speculates that the increased crab landings after 1997 may have been directly due to a decrease in undersized crab violations.

UNDERWATER OBSTRUCTION LOCATIONS

The Louisiana Fishermen's Gear compensation Fund has asked that we print the coordinates of sites for which damage has been claimed in the last month. The coordinates are listed below:

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<thead>
<tr>
<th>Loran sites</th>
<th>Lat. &amp; Long. Sites</th>
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BLUE CRABS & FRESHWATER

Freshwater diversions from the Mississippi River carrying the river's sediments and nutrients are widely seen as the most effective method of rebuilding Louisiana's coastal marshes. In addition to carrying sediments to the wetlands, the diversions would lower salinities in the marsh areas that they discharge into. Lower salinities may increase populations of some fisheries species and decrease others.

Studies in Texas and Florida have indicated that low salinities have a positive affect on blue crab populations. Department of Wildlife and Fisheries biologist Vince Guillory recently compared Mississippi and Atchafalaya River discharge levels with the catch per fishermen in the years 1960 to 1997 to see if there was some relationship between salinity and crab catches.
The results showed a strong connection between high river discharges and strong crab catches. Blue crab catches increased from the previous year in 6 of 8 high-river-flow years. During low-flow years, catch per fishermen decreased in 6 of 9 years. Increased catches during high-flow years could be due to more food, more habitat, lower numbers of saltwater fish predators or a combination of reasons. From his analysis, Guillory concluded that freshwater diversions and the lower salinities produced by them could be beneficial to the blue crab resource.


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**THE GUMBO POT**

**Crawfish Dip/Spread**

This is the time of year to enjoy crawfish tailmeat, whether you peel your own or buy them already peeled. If you peel your own, be sure to save the fat. The texture of this dish makes it a better spread than a dip.

<table>
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<tbody>
<tr>
<td>1 lb crawfish tails</td>
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<tr>
<td>1 stick butter</td>
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<tr>
<td>2 tbsp flour</td>
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<tr>
<td>1 bunch green onions, chopped</td>
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</tbody>
</table>

1/4 cup chicken broth
1/4 pint half-and-half
Creole seasoning to taste


Sincerely,

Jerald Horst
Associate Specialist (Fisheries)