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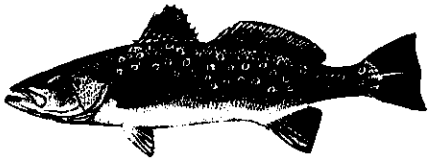
SPECK STOCKS

In recent years, public interest in Louisiana and Texas in management for larger speckled trout has increased. Much of the interest in Louisiana is focused in the Calcasieu estuary, which includes Lake Calcasieu. Managing a single lake or bay system with "trophy fish "regulations may not be effective if the stocks of fish in that system regularly move to other systems and vice versa.



Other reasons exist for knowing how much speckled trout interchange exists between estuaries. The fish could be overfished in one system, but not others. Major genetic differences between trout stocks in different systems could also influence where fish are selected from for hatchery use, if the fish are to be spawned. Finally, major genetic differences could mean that some populations may be better for "big trout management" than others.

Previous tagging work done in all five Gulf Coast States has indicated little "coastwise" movement of speckled trout, with most tag returns coming from within 30 miles of where they were tagged. Tagging and recovery can only provide so much data. Determining whether any fish species consists of one stock (population) or many stocks, depends upon analysis of inherited DNA.

Texas scientists recently conducted such a genetic analysis on 348 speckled trout taken from 9 bay systems between Sabine Lake and the Lower Laguna Madre. Tissue samples from the fish were analyzed by both the Texas Parks and Wildlife Department and Texas A&M University. Previous genetic analyses conducted in the Gulf states produced mixed results, but generally indicated that speckled trout exist as a series of overlapping subpopulations from bay system to bay system.

The results of this most recent study were similar. A small amount of genetic variation occurred from one bay system to the next, then on to the next, and so forth. Therefore, fish in a bay system are very similar genetically to those in the next system

along the coast, but they may be somewhat different from fish several bay systems away. While tagging results indicate little movement between bays, enough exists to provide a degree of genetic mixing. Other scientists have suggested that the Intra-coastal Waterway aids speckled trout movement from one bay system to another.

Source: *Population Structure of Spotted Seatrout (Cynoscion nebulosis) along the Texas Gulf Coast, as Revealed by Genetic Analysis.* John R. Gold, Leah B. Stewart and Rocky Ward. Biology of the Spotted Seatrout, pp 17-28. CRC Press. 2003.

RAISING RUNTS?

Both fishermen and biologists have, at times, questioned what the effects are of minimum size limits that force them to take larger fish. One scientist, David Conover of the State University of New York, Stony Brook thinks he knows. He says that "management practices meant to maintain robust catches may be having the opposite effect over the long run." Other scientists have also suggested that fish populations may be changing genetically because of heavy fishing.

Since wild fish populations are difficult to study closely, Conover and graduate student Stephen Munch moved to the lab. There, using eggs collected from the wild, the two biologists hatched six populations of Atlantic silversides, a small minnow-like fish, in six tanks.

When they had 1,000 fish in each tank, they went fishing. From two tanks, they removed from each the 900 largest fish. From two other tanks, they removed the 900 smallest fish. From the last two tanks, they removed the same amount of fish at random. After allowing the fish to reproduce and populations to return to their original size, they repeated the process. They did this for four generations. Each time, they recorded how the size, weight and growth rates changed.

The results were dramatic. In the tanks from which the bigger fish were removed, the "harvests" were larger at first, but soon shrank. By the fourth generation, the decline was substantial. In contrast, from the tanks where the smaller fish were taken, the catch was smaller at first, but both the catch and the size of the individual fish grew larger. In the random tanks, the population remained the same.

The rapid shifts, the biologists said, were due to inherited genetic changes caused by harvest. The same thing is happening in the wild, they said, although at a slower rate. They recommended the use of more marine protected areas (marine reserves), where no fishing is allowed, or the use of size regulations to protect larger fish as well as smaller ones.

Needless to say, their study conclusions have stirred controversy. Some scientists say that their results are right on target. Others say that their experiment was far to small to support major changes in fisheries management.

Source: *Mixed Schools a Must for Fish?* David Malakoff. Science, Vol. 297. July 5, 2002.

MISSISSIPPI FISH TAGGING REPORT

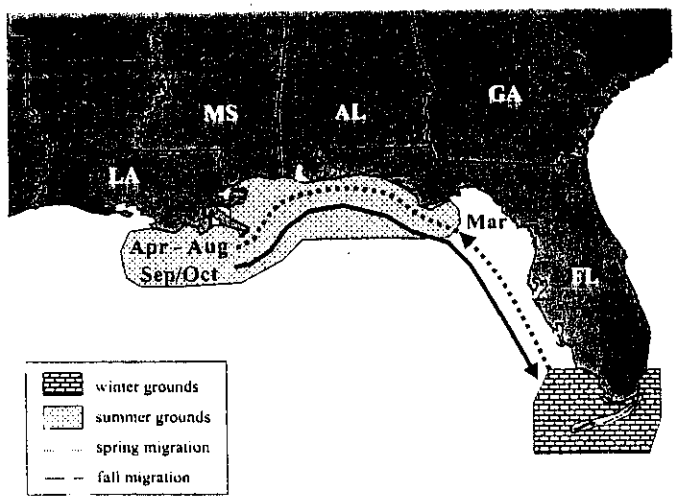
Over 7 years ago, scientists at the Gulf Coast Research Laboratory began a fish tagging program using volunteer recreational fishermen to tag speckled trout, cobia, and now tripletail (blackfish). This year's report from the Sport Fish Tag and Release Program is most interesting.

Speckled Trout

The speckled trout tagging program, which is limited to Mississippi residents, produced results in 2001 which support speckled trout tagging results from other states. Speckled trout are just not travelers. Of the 16 tagged trout that were recaptured in 2001, 12 had moved less than 3 nautical miles and 15 of the 16 had moved under 5 nautical miles.

Six of the trout had been at liberty for over 30 weeks since they were tagged. None of these was recovered over two nautical miles from where tagged and 3 of them were recaptured at the exact same spot where they were tagged. The star was a fish recaptured 102 weeks after tagging. It was 12 inches long when tagged and 19.5 inches long when recaptured, two miles away. Another speck was originally tagged on July 21, 2001, was caught again by the same angler on the same day, and then caught again 93 days later, again by the same fisherman in the same spot.

Cobia



In 2001, a total of 452 cobia were tagged, primarily off of Mississippi and Louisiana, but also off of Alabama and Florida, with another 16 tagged off of the Atlantic Coast. Twenty recaptures were made. Twelve of these were tagged in the northern Gulf, with 9 recaptured there and 3 in the Florida Keys. All of the cobia recaptures that were originally tagged in the Keys, were recaptured there. The results supported the cobia migration pattern worked out in previous years. Cobia over-winter in the warm waters of the Florida Keys. In spring they begin a

migration up the Florida coastline. They appear off of the western Florida Panhandle and Alabama by March and April and continue westward through the summer. As winter approaches, they seem to follow the same route back to south Florida.

The longest time at liberty after tagging were two fish at about 5 years (258 and 266 weeks). One of these was tagged in April,1996 off of Navarre, Florida at 21 inches long and recaptured in April, 2001 at 53 inches long at the same location. The other was tagged in April, 1996 off Orange Beach, Alabama at 24 inches long and was recaptured in May, 2001 at a Main Pass oil rig at 44 inches long.

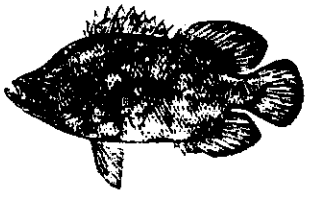
Seventeen of the 20 fish had traveled less than 100 nautical miles when recaptured. The longest distance traveled by a 2001 recapture was 335 nautical miles in just under 37 weeks. This fish was tagged in August, 2000 at Ship Shoal off of Louisiana and on April, 2001, it was recaptured 15 miles off of Marathon, Florida. It had grown from 26 inches to 29 inches long.

Tripletail

The year 2001 was the first year for tagging tripletail. A total of 39 anglers received tagging kits, but only 6 actually tagged tripletail. Of the 32 fish tagged, one angler from Florida tagged 26 of them. The 32 fish ranged from 12 to 29 inches long. No recaptures were made. The biologists in charge of the study are very interested in getting more fishermen into the tripletail tagging program.

Source: *Sport Fish Tag & Release Program: 2001 Summary.* Mississippi Marine Fisheries: Summary of 2001 Research Results. Center for Fisheries Research & Development. Gulf Coast Research Laboratory. 2001.

FISH TAGGERS NEEDED



Researchers with Gulf Coast Research Laboratory in Ocean Springs, Mississippi are looking for fishermen willing to tag and release tripletail and cobia. The researchers' tagging efforts have, so far, produced some interesting results for cobia and are hoping for similar success with tripletail. Both species are more common in northern Gulf of Mexico waters in the warmer months. More information is needed for both species, but tripletail data is especially lacking.

Fishermen interested in joining the Mississippi Marine Sport Fish Tag and Release Program should call (228) 872-4202 and ask for Read Hendon or Jim Franks. Louisiana fishermen are welcomed into the program. The fishermen will receive a tagging kit with 4-inch yellow spaghetti tags and instructions. This effort is funded by the Mississippi Department of Marine Resources.

Anyone catching a tagged fish should record the species of fish, the tag number, the date of capture and the fork length (tip of nose to fork of tail), and total length of the fish. The information may be reported by calling the above number or by mailing the tag to Center for Fisheries Research and Development, Gulf Coast Research Laboratory, P. O. Box 7000, Ocean Springs, MS. 39566-7000. Remember not to keep cobia under the minimum legal size limit. Fishermen should make every attempt to leave the tag intact on any released fish.

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:

Loran Sites

28286	46857	TERREBONNE
27442	46954	ST. MARY

Lat. & Long. Sites

29	12.761	89	00.848	PLAQUEMINES
29	15.912	89	05.878	PLAQUEMINES
29	24.497	91	12.973	ST MARY
29	44.285	89	41.489	ST BERNARD
29	44.303	89	21.180	ST BERNARD
29	48.072	93	20.675	CAMERON
29	48.865	89	35.281	ST BERNARD
29	49.552	89	17.351	ST BERNARD
29	51.515	90	28.276	ST CHARLES
30	03.670	89	39.543	ST BERNARD
29	14.832	89	59.427	JEFFERSON
29	16.170	89	57.370	JEFFERSON
29	18.440	89	46.710	JEFFERSON
29	33.994	92	31.533	CAMERON
29	45.134	89	31.596	ST BERNARD
29	50.490	89	17.610	ST BERNARD

WHO IS OCEANA?

In the not too distance past, fisheries management issues involved only two user groups—recreational fishermen and commercial fishermen. That has changed. Environmental organizations made their first major stand on fisheries in the southeast in the 1980s over the use of turtle excluder devices (TEDs) in shrimp trawls Since then, the number of ocean-oriented environmental groups, the size of those groups, and their activity have all rapidly increased.

In March of last year, the largest of these groups, Oceana, was formed from several other groups, with grants totaling over $9 million over two years from the Pew Foundation. Also contributing funding to Oceana are The Oak Foundation, The Rockefeller Brothers Fund, The Rockefeller Family Fund, The Surdna Foundation, and The Turner Foundation. Oceana's focus is on bycatch, habitat, fishing gear, and

endangered species. Actor Ted Danson, who serves as director, compares bottom trawling to "clear cutting a forest". Oceana representatives say that shrimp boats are "strip mining" the Gulf of Mexico and killing endangered sea turtles.

The focus of much of Oceana's ire is the National Marine Fisheries Service (NMFS) which they accuse of violating not only the Magnuson Fisheries Act with their management, but also the Endangered Species Act, the Marine Mammal Protection Act and the Migratory Bird Treaty Act. They accuse NMFS of "dragging its feet on requiring even larger openings in TEDs."

Rebecca Lent, NMFS deputy assistant administrator for regulatory programs, defends her agency. She says that the agency is reviewing the extensive public comments on the proposed larger TED openings. She also said that federal laws require NMFS to reduce bycatch, not eliminate it. Finally, she says that the amount of fish bycatch caught by shrimp boats is "pretty close" to what Oceana says they want.

An inspection of their website, Oceana.org. shows that they are a very aggressive organization, especially in the courts. Their Ocean Law Project has racked up an impressive number of recent legal actions, including

- Suing NMFS on behalf of the Conservation Law Foundation, National Audubon Society, Natural Resources Defense Council, and the Ocean Conservancy, for failing to put in place strong overfishing requirements, failure to minimize bycatch, and failure to collect bycatch records in the New England groundfish fishery.

- Representing various environmental groups as a friend of the court supporting NMFS against a lawsuit over the Highly Migratory Species (billfish, swordfish, tuna) Management Plan and vessel monitoring system requirements.

- Launching, along with the Natural Resources Defense Council, 3 suits against the government over bycatch, the management plan, and public participation in management of Pacific rockfish.

- Suing NMFS for failing to protect tilefish habitat in the mid-Atlantic states by allowing the use of bottom trawls in areas where tilefish burrow into the bottom.

- Filing legal papers, with the Turtle Island Restoration Network and the Center for Biological Diversity, to argue in court to keep a longline closure by NMFS in place on the North Atlantic Grand Banks.

- Suing NMFS for failing to analyze the environmental impacts of fishing gear on habitat.

– Suing NMFS, as a representative of The National Coalition for Marine Conservation, The National Audubon Society, and The Natural Resources Defense Council, to stop longlining where bycatch occurs.

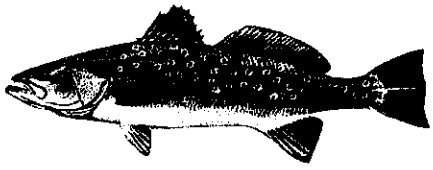
In February, Oceana launched its "Oceans at Risk" campaign, which it describes as a campaign to end destructive fishing. Its stated goal is "to persuade the Bush Administration and Congress to enforce the law and mandate near-zero levels of bycatch for all marine life." The centerpiece of the campaign is the report *Oceans at Risk: Wasted Catch and the Destruction of Ocean Life.* The report hammers NMFS for skirting the law, permitting overfishing to occur, providing poor leadership, and inadequate data collection.

The report uses powerful language. Its executive summary says that "Protecting the world's oceans should start here in the United States, where fishing nets strangle, drown, and crush billions of fish, and thousands of sea turtles, whales, dolphins, sharks, and seabirds. Other gears, such as bottom trawls, bulldoze the ocean floor in search of fish, scraping up virtually everything in their path."

Bob Jones, executive director of the Florida-based Southeastern Fisheries Association disagrees strongly with Oceana's statement. He says that "Those people (Oceana) are radical. They have an agenda, and they have a lot of money. They are trying to paint anyone who fishes as the absolute devil."

Sources: www.oceana.org. www.oceansatrisk.com. *Petition Aims to Save Sea Life,* Bruce Rickie, Tallahassee Democrat, 3/1/02.

TROUT HOOK & RELEASE MORTALITY



The use of size limits to manage specked trout has always caused concern among certain fishermen about the survival of released fish. Speckled trout are often viewed as soft-fleshed, delicate fish. Many studies have indicated that release mortality (death) is not as high as some anglers think. A recent study in Mississippi supports these findings.

In 2001, speckled trout were captured with live bait on single hooks. The fish were handled the way that anglers would, barehanded, and the hooks were removed by hand or with pliers. Several fish were even dropped on the deck. All the fish were then placed in a 4-foot, round cage attached to a pier, and held without food for 3 days.

A total of 78 speckled trout under 14 inches (the Mississippi minimum size) were caught and held for this study. At the end of 3 days, only 3 died in captivity, producing a survival rate of 96.2%. Several of the fish had been gut-hooked. For these fish, the line was cut and the hook left in them. All of these fish survived.

Beside the 78 sub-legal specks, another 11 legal-size speckled trout and 17 sand seatrout (white trout) were caught, tagged and held in cages for 3 days. All 11 specks survived and only one of the 17 white trout died (94.1% survival). All of the tags stayed in place.

Source: *Hooking Mortality of Spotted Seatrout.* Center for Fisheries Research & Development. Gulf Coast Research Laboratory. 2001.

FISHERIES COUNCILS IN TROUBLE

In 1976, U.S. Congress passed the Magnuson Fishery Conservation and Management Act to manage fisheries resources within the 200-mile Exclusive Economic Zone (EEZ). The system was designed to involve state management agencies and fishermen on fishery management councils with the National Marine Fisheries Service (NMFS) in developing fishery management plans. Fishermen and other parties were also to be involved in advisory panels for each managed fishery. The eight councils were not only supposed to conserve fisheries, but to promote the commercial and recreational fishing industries.

The last part of this assignment was a success. The foreign fishing fleet was pushed out of the EEZ and the U.S. fishing industry grew rapidly. But, the conservation part was more difficult. The bounty of the sea was easier to harvest than to conserve, and since the early 1990s, the councils have had to shift gears from handing out underfished stocks to rationing overfished ones. This has resulted in conflict and controversy.

As a result, Congress and NMFS asked the National Academy of Public Administration to develop a panel to study the federal council fisheries management system and make recommendations for its improvement. The panel reported that the federal fisheries management system is in crisis. The report points to many signs of problems in the system.

- The number of lawsuits against NMFS over fisheries management is now 10 times as higher than in the mid-1990s. NMFS is also losing more and more of them.

- Fisheries harvests have stagnated at about 10% below their high in the early 1990s. In 2000, the number of overfished fish stocks was 92, about 10% of the more than 900 stocks. The status of another 70% was unknown. Both the councils and NMFS have had to deal with intense political pressure over management.

- The federal management system has been slow to adopt standards passed in 1998, such as required protection of essential fish habitat, and requirements to

rebuild overfished stocks, whenever possible, within 10 years. Many of the recent lawsuits have been over these provisions.

- The interests of the two major groups, commercial/recreational fishermen and environmental/conservationist groups, have grown apart and created pressures on the management system. Each group thinks that the system primarily serves the interest of the other.

- All 42 fisheries management plans have problems — lost court decisions, legal challenges, no or poor environmental impact statements, or overfished or endangered species.

The panel said the federal management system is in trouble. Fisheries management is increasingly done through the courts and by Congress. The councils and NMFS "are being driven to management-by-crisis for a variety of reasons." The panel made a number of recommendations, some of which are as follows:

- Most importantly, the NMFS regional administrators must be given more power and their jobs must be clearly defined.

- Congress should give the NMFS regional administrators the authority to prepare amendments to council proposals for fisheries management.

- Since study of the lawsuits against NMFS can be used to identify areas where the management system is weak, good records of lawsuits and their outcomes should be kept.

- NMFS should improve its record-keeping by using the same methods in all regions.

- Congress should provide for membership on the councils by representatives of other interest groups, such as environmental groups, consumers and marine trades.

- Conflict-of-interest rules should be tightened by requiring council members not to vote when conflicts come up.

- See, where possible, to combine state and federal permits to reduce cost and confusion.

- More biologists, economists and a National Environmental Policy Act Coordinator should be hired.

- NMFS should contract out much of the work that they don't have the people on staff to do.

Source: *Courts, Congress, and Constituencies: Managing Fisheries by Default.* National Academy of Public Administration. July, 2002.

RECREATIONAL REPORT FROM "DOWN UNDER"

In May, 2002, the Third World Recreational Fishing Conference was held in Darwin, Australia. The five day conference brought representatives of recreational fishing organizations, fisheries management officials and research scientists together to discuss the future of recreational angling. Two big issues came up again and again. They were marine protected areas and anti-fishing campaigns. Both were of worldwide interest.

You may not have marine protected areas (MPAs) where you fish now but they're coming, according to John Harrison, president of the national angler organization, Recfish Australia. "Aquatic protected areas or no-take zones or marine parks, call them what you like, are not going to go away," he said. "Recreational anglers worldwide have to be part of the process that decides where they go and how they are managed," he added. "Sticking our heads in the sand only exposes a target."

Of even more concern, was talk about the growing campaign to outlaw fishing completely, on the grounds that it's a "cruel bloodsport." Anglers need to get on the offensive, to counter "this green-driven agenda to do away with our sport," Australian fishing celebrity Rex Hunt told attendees in a speech opening the second day. "Fishing needs heroes right now!" Hunt added. "The time has come to get out the message that fishing makes valuable contributions to our society."

Bill Price of the U.S. National Marine Fisheries Service sums things up, "The options for recreational fishing's future really come down to anglers influencing policy, educating the public, and establishing partnerships with management agencies, other interest groups and private industry. The alternative is more regulation, greater restrictions and more areas closed to fishing."

Source: *Fishing For Answers Down Under.* Ryck Lydecker. BoatUS, Volume VII, September, 2002.

THE STUFF ON SPECKS

Ordinarily, we don't do book reports, but with the intense interest in Louisiana and Texas on speckled trout management, we will make an exception here. Just published is the *Biology of the Spotted Seatrout*, the latest in the CRC Press Marine Biology Series. The book is not light reading. It's written by biologists for biologists, but it is jam-packed with good information. One chapter, *Spotted Seatrout Habitat*

Affinities in Louisiana, was written by LSU scientists Donald M. Baltz and Edward J. Chesney, and Louisiana Department of Wildlife and Fisheries biologist R. Glenn Thomas. The 312 page book costs $149.95. For more information, call CRC Press at 1-800-272-7737 or go online at www.crcpress.com.

WHITE MARLIN NOT LISTED

In early September, the National Marine Fisheries Service (NMFS) determined that the white marlin should not be listed as threatened or endangered under the Endangered Species Act (ESA). NMFS was forced to do the review by a petition from a Colorado-based environmental group, The Biodiversity Legal Foundation and Maryland resident, James R. Chambers.

The Atlantic White Marlin stock is 5-15% of what it could be and declining. NMFS concluded that while "the species has declined greatly from historical levels, it is not currently at a level that warrants listing under the ESA." The U.S. fishery accounts for about 5% of the total mortality (deaths) of Atlantic white marlin, which are caught mostly as bycatch in international longline fisheries.

An ESA listing could have had serious effects. It is likely that the U.S. tuna/swordfish longline fishery could have been eliminated. The same goes for the high-dollar billfish tournaments. At a recent five-day White Marlin Open Tournament held in Ocean City, Maryland, 1,104 white marlin were caught, all but 24 of which were released. It is illegal even to "harass" an endangered species. Neither the U.S. longline nor the recreational fishery are the major cause of white marlin mortality. A United States ESA listing would have no effect on foreign countries' take of the species.

The current NMFS determination does not mean that the issue is over. In recent years, Atlantic white marlin stocks have declined by an average of 6% per year. The fish is managed internationally by the International Commission for the Conservation of Atlantic Tunas (ICCAT). In 2000, ICCAT adopted rules to reduce the white marlin kill, but the measures have not been in place long enough to evaluate. Current U.S. measures include gamefish status, time and area fishing closures, and gear and bait restrictions. A full ESA review will be done on the species within five years.

Sincerely,

Jerald Horst
Associate Professor, Fisheries