MARINE FISHERIES SECTION
AMERICAN FISHERIES SOCIETY

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THIS ISSUE

President's Comments

Many members of the Marine Fisheries Section have been busy during the last 6 months preparing material on behalf of the Section. I want to take this opportunity to thank all of you who participated for your valuable contributions. I have reported on the following items at the mid-year AFS Governing Board meeting held on March 23rd, 1997 in Bethesda:

Bycatch: The Marine Fisheries Section co-sponsored a symposium on bycatch at the AFS meeting in Dearborn. A videotape of the plenary speakers is now available from Georgia Sea Grant. The Marine Fisheries Section is also working on a special issue of Fisheries devoted to bycatch, based on the presentations at the Dearborn symposium. Contact AFS and section member Mac Rawson, Georgia Sea Grant, for additional information on both the videotape and the special issue.

Northwest Atlantic Groundfish: The groundfish book is finally nearing completion. All the chapters have now undergone peer review and the editors are waiting for final revisions from the authors. The book will be titled "Northwest Atlantic Groundfish: Perspectives on a Fishery Collapse." Editors are John Boreman, Brian Nakashima, Howard Powles, Jim Wilson, and Bob Kendall. The Groundfish Steering Committee and AFS staff expended considerable effort last spring and summer to raise funds for a stakeholder workshop on management options, but no foundation, government agency, or business was willing to support it. As such, the workshop program has been abandoned for the time being.

Sharks: Paul Brouha asked our Section to draft a position statement for AFS on the status and management of sharks. Jack Musick is heading the effort on behalf of the Section. He has part of the document drafted, but has held off the release because of on-going developments concerning NMFS and the Atlantic Shark FMP, and CITES actions pending on sharks and sawfishes. The NMFS actions should be resolved within a few weeks and the CITES Animals Committee position paper has just been released. Jack expects to have a document ready in about a month.

Bluefin Tuna: The section has prepared a statement on Bluefin tuna. The statement, prepared by Steve Berkeley, is responding to recent ICCAT action, and is currently under review by Section members.

AFS Sustainable Fisheries Strategy for West Coast Salmon and Steelhead: The Marine Fisheries Section, along with the North Pacific and International Chapter, the Canadian Aquatic Resources Section, government agencies and non-government organizations have joined forces to address the issues related to the decline of size and numbers of salmonid populations in the Pacific Northwest. A conference addressing these issues was held in Victoria, April 26 - 30, 1996. By all accounts, the conference was an overwhelming success. The conference work group sessions provided the more than 500 attendees an opportunity to develop a vision for the future and offer practical recommendations on how to achieve sustainable salmon fisheries. A strategy document, "Towards sustainable fisheries: Building a cooperative strategy for balancing the conservation and use of West coast salmon and steelhead populations" has been compiled and distributed to conference attendees. The work on how to implement the strategy is currently under discussion in the region.

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1996 Outstanding Achievement Award Presented

MFS past-president, Churchill Grimes, Director of the National Marine Fisheries Service Laboratory in Panama City Beach, Florida, was selected as the recipient of the Southern Division, American Fisheries Society, 1996 Outstanding Achievement Award. This is the highest award given by the Southern Division, and recognizes Churchill's career of outstanding contributions to the Division and to the fisheries profession. The award was made to Churchill at the mid-year meeting of the AFS Southern Division in San Antonio, Texas, in February. Formed in 1870, the American Fisheries Society is the foremost professional organization for fishery scientists in North America.

Dr. Churchill Grimes

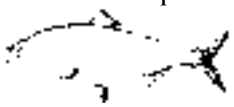
Churchill received his B.S. and M.S. in Biology from East Carolina Univerisity, and his Ph.D. in Marine Sciences from the University of North Carolina. His career spans 30 years of research and teaching, including positions with state, federal, and academic research institutions in North Carolina, Florida, and New Jersey. Prior to accepting his current position in Panama City, he was an Associate Professor at Rutgers University. During his career he has amassed a prolific publications record on various topics such as reef fish and tilefish biology, larval fish ecology, and estuarine ecology. He has taken a leadership role in numerous professional organizations by serving on regional, national and international professional review panels, committees, working groups and symposia.

The Panama City Laboratory is one of six federal laboratories in the southeast region. The purpose of these laboratories is to perform research to provide a scientific basis for decision making by fishery managers. The Panama City Laboratory is currently conducting numerous studies on the important sport and commercial fishes of the southeastern U.S. Examples of some of these studies include reef fish age and growth, larval fish ecology and recruitment, shark biology, charterboat fishery surveys, reef fish early life history and habitat ecology, billfish surveys, grouper reporduction, and the use of geographic information systems in fish habitat delineation. More information on the Panama City Laboratory may be obtained by calling Rosalie Shaffer at 234-6541.

International Conference on the Conservation Status of Shads

Shads (Alosidae) are important commercial and recreational fishes on five continents. However, the triumvirate assaults of habitat loss, pollution, and overharvest have depleted many populations and could eventually result in extinctions of several or more species. We propose to convene an international meeting to assess the status of alosines worldwide. The purpose would be three-fold: (1) to update the fundamental biology and systematics of the group, including new information on phylogenies and distributions; (2) to describe the current status (population estimates, life history characteristics, exploitation, habitat and pollution) of species; and (3) to synthesize global trends and development of recommendations for management strategies.

Is there sufficient interest among the global community of researchers and managers involved with alosines to warrant such a conference? We are tentatively considering setting the meeting date for 1998 or 1999. We plan to publish the proceedings.



Please send views or ideas to: Karin Limburg, Department of Systems Ecology, University of Stockholm, S-106 91 Stockholm, Sweden (Karin_L@system.ecology.su.se) or John Waldman, Hudson River Foundation, 40 West 20th Street, 9th Floor, New York, NY 10011 (hrfound@aol.com). We welcome interest in joining a planning/steering committee.

Bill Leggett Receives Sette Award

Past-President John Boreman presented Dr. William C. Leggett with the Section's O.E. Sette Award during the banquet at the annual Northeast Fish and Wildlife Conference, held on 29 April in Framingham, Massachusetts. Unable to attend the annual AFS meeting in Dearborn, Dr. Leggett was present at the banquet (along with his wife Claire) to receive the award in front of many of his friends and former colleagues. In presenting the award, John Boreman noted that Bill is one of the world's most distinguished population biologists with well over 150 scientific publications. Bill also has contributed significantly to our understanding of the relationships between physical processes and the dynamics of marine fish larvae; in fact, his research interests bear many similarities to those of O.E. Sette. Bill is widely respected as a teacher, scientist, editor, and now as an administrator. He has supervised over 35 graduate students and post-doctoral fellows, many of whom are now well-recognized researchers and educators in their own right. Dr. Leggett is currently President of Queens University in Kingston, Ontario.

~John Boreman

NOAA FISHERIES STRATEGIC PLAN

In May 1997, the National Marine Fisheries Service released the NOAA Fisheries Strategic Plan which outlines the agency's mission, vision, goals and objectives for the next five years. Contact NMFS Headquarters in Silver Spring, Maryland (301/713-2258) to receive or http://kingfish.ssp.nmfs.gov to download the full report.

Mission

Stewardship of living marine resources for the benefit of the nation through their science-based conservation and management and promotion of the health of their environment.

Goal

NOAA Fisheries envisions a future in which the American people are able to enjoy the wealth and benefits of diverse and self-sustaining living marine resources.

Strategic Goals

- Sustainable fisheries
- Recovered protected species
- Healthy living marine resource habitat

National Objectives

- Maintain healthy stocks important to commercial, recreational, and subsistence fisheries.
- Eliminate overfishing and rebuild overfished stocks important to commercial, recreational, and subsistence fisheries.
- Increase long-term economic and social benefits to the nation from living marine resources
- Promote the development of robust and environmentally sound aquaculture
- Recover and maintain protected species populations
- Reduce conflicts that involve protected species
- Protect, conserve, and restore living marine resource habitat and biodiversity

Foundations for Stewardship

- Science which is of the highest quality and which advances our ability to make living marine resource management decisions
- Communication and collaboration with constituents
- Strong and productive partnerships
- Enforcement and regulatory effectiveness
- Agency management, infratructure, and workforce

1996 Our Living Oceans - Vol II

NMFS has produced the 1996 edition of *Our Living Oceans: The Economic Status of U.S. Fisheries*. It is the second in a series of three volumes that provides assessments on the biological health of U.S. living marine resources (*Our Living Oceans*, Volume I*)*, the economic health of U.S. fisheries (Volume II), and the health of marine/coastal habitat (forthcoming Volume III) under NOAA's stewardship.

This report provides an economic overview of U.S. domestic fisheries. While the principal focus is on the commercial harvesting sector targeting wild stocks, sections describing recreational fisheries, commercial processing, international trade, and retail sectors are included. Together with chapters on topical fishery economic issues from around the Nation, the volume illustrates the complexity of quantifying the economic successes and failures of the Nation's fisheries and provides a baseline assessment from which to measure progress. Despite the U.S. position as the world's fifth largest fishing nation, the report highlights significant gaps in our fisheries information base and proposes ideas and solutions to improve the science basis of management actions.

Magnuson-Stevens Act

The Sustainable Fisheries Act, passed by Congress in October 1996, added many new requirements to the Magnuson-Stevens Act. The SFA calls for the eight regional fishery management councils to amend their fishery management plans in many areas, some of which are listed below. The councils have until October 1998 to submit these amendments.

- Essential Fish Habitat
- Overfishing and stock rebuilding
- Bycatch reporting and reduction
- Charter and recreational fisheries descriptions and allocations
- Fishery impact statements for communities
- Four-year reduction in economic discards
- Total catch measurement/weighing of fish
- Fees on Individual Fishing Quota/Community Development Quota programs
- North Pacific Loan Program
- Central Title Registry Program

FISHERIES SYMPOSIA

The Magnuson-Stevens Act: Sustainable Fisheries for the 21st Century will be a critical examination of issues associated with implementing the new federal fisheries law. The symposium will address overfishing, essential fish habitat, bycatch, international management, and individual transferable quotas in one and a half days on September 5-6, 1997 at Tulane Law School, New Orleans, Louisiana. Contact Sharon Stevenson (504/865-5925 or srsteven@law.tulane.edu) or check for updates at www.law.tulane.edu/events.htm.

William R. and Lenore Mote Eminent Scholar Chair in Fisheries Ecology

The College of Arts and Sciences and the Department of Biological Science at The Florida State University, in concert with the Mote Marine Laboratory of Sarasota, are pleased to announce two appointments made possible by the generosity of Mr. William R. Mote.

Dr. David Conover will serve as the first holder of the William R. and Lenore Mote Eminent Scholar Chair in Fisheries Ecology. Conover, a Professor of Marine Science and Assistant Dean at the State University of New York, Stony Brook, is an expert on the life history of fishes and the importance of integrating knowledge of life histories into fishery management. His most well-known work concerns how the growth rate and development of fishes responds to temperature variation at different latitudes. His work, which has been supported continuously by the National Science Foundation and other funding agencies, represents the integration of innovative basic research and critical applied knowledge that the Mote Chair was designed to encourage. Conover will bring his scientific expertise and his teaching skills to both FSU and the Mote Marine Laboratory through this one-year, visiting appointment, which will begin in July, 1997.

The generosity of William R. Mote has also enabled FSU to appoint Dr. John Miller of North Carolina State University to the position of Mote Distinguished Visiting Scientist. Miller, a Professor of Zoology and since 1991 a Visiting Scientist at the Netherlands Institute of Sea Research, studies effects of environments on population of fish and he attempts to model those effects. He will bring his expertise on fishery productivity to the Mote Marine Laboratory and to FSU through this special, one-year appointment beginning April 1.

These two appointments bring two of the finest fisheries biologists in the nation to Florida to enhance the scholarly programs of FSU and the Mote Marine Laboratory. They reflect the vision of William R. Mote, which is to unite the scientific resources of FSU with those of the Mote Marine Laboratory in the cause of understanding Florida's fishery resources and how to preserve them.

~Felicia Coleman

Consequences and Management of Fisheries Bycatch Videotape Available

The Consequences and Management of Fisheries Bycatch: Overview videotape available. The videotape is a summary of the overview papers of the bycatch symposium at the 126th AFS Annual Meeting in Dearborn, Michigan.

Topics include:

- Characterization of Fisheries Bycatch, Steve A. Murawski, NMFS, Woods Hole, MA
- Analysis and Implications of Bycatch, Larry B. Crowder, Duke University, Beaufort, NC
- Mitigation of Fisheries Bycatch, Clarence G. Pautzke, North Pacific Fishery Management Council, Anchorage, AK

The video is available for $15.00 from the Georgia Sea Grant College Program, Marine Science Bldg., Athens, GA 30602-3636.

IPHC Appoints New Executive Director

The International Pacific Halibut Commission (IPHC) announced the appointment of Dr. Bruce Leaman, MFS member, to the position of Executive Director. Dr. Leaman is currently the head of the Stock Assessment Recruitment and Biology Program at the Pacific Biological Station in Nanaimo for the Canadian Department of Fisheries and Oceans. He has been the Canadian Scientific Advisor to the International Pacific Halibut Commission since 1985. Dr. Leaman has been a key advisor on IPHC research and assessment and on the Commission's evaluation of the effect of bycatches in other North Pacific fisheries on the halibut resource.

A Fish Story

A fisherman recently traveled to Fargo, North Dakota for a city reunion. Fargo was the fisherman's home town. The fisherman went to a restaurant in the nearby town of Holly. Here is the restaurant scene:

He reads the menu and the fish options are wall-eyed pike and Alaska wall-eyed pike. He informs the waitress that there is no commercial Alaska wall-eyed pike.

The waitress goes back to talk to the cook and returns to inform him that the Alaska wall-eyed pike is really halibut. Being an Alaska halibut fisherman he asks, "so why don't you sell it as halibut?" The waitress responds, "people in Holly want pike."

~Bob Alverson

NORTHEAST NEWS

Lobster Restoration Work Begins in Narragansett Bay

The National Oceanic and Atmospheric Administration (NOAA) and the Sea Grant Program at the University of Rhode Island (URI) have just begun installing six cobblestone reefs in Dutch Island Harbor, near Jamestown, R.I.

The reefs are intended to compensate the people of Rhode Island and the lobster industry for injuries suffered because of the 1989 World Prodigy oil spill. Funding for the new reefs comes from a $600,000 natural resource restoration settlement with the shipping company responsible for the spill. The World Prodigy oil spill soaked 120 square miles of Narragansett Bay and Rhode Island Sound with more than 290 thousand gallons of home heating oil, killing eggs and larvae of some of the bay's most important marine species.

In Dutch Island Harbor, all environmental conditions needed for lobsters to thrive are present, except for protective habitat. The new reefs, located in about 15 feet of water, will provide that habitat. Construction is expected to take 7-10 days from start to finish.

The key to the Dutch Island Harbor restoration is whether lobsters will call the artificial habitat home. To find out, URI biologists will start studies next spring. They will seed three of the reefs with hatchery-raised juvenile lobsters. The juveniles will be tagged with tiny wires implanted in their abdomens so that the scientists can track their survival. The biologists will also examine how many wild lobsters move onto the new reefs. Heading up these efforts are Dr. Stan Cobb and Kathleen Castro of URI.

"This project will benefit the marine environment in two important ways," says John Catena, NOAA restoration coordinator. "It will compensate for some of the spill's impact by restoring injured resources. And, by studying the site, we can learn more about how artificial reefs and hatchery-reared lobsters can be used in other restoration projects."

Other restoration projects funded under the $600,000 settlement include the creation of breeding areas that will help restock quahogs in Greenwich Bay, and two projects that will help restore fish killed by the spill: the restoration of a salt marsh on Aquidneck Island and the restoration of eelgrass beds throughout Narragansett Bay.

NOAA is the public trustee for marine resources. Under the Oil Pollution Act of 1990, Superfund, and the Clean Water Act, NOAA claims damages for oil and chemical spills, and makes sure that polluters repair the injury they cause.

Two Major New England Fishery Violation Cases Closed

Two major cases involving major fishery violations by New England fishers and processors have been settled during 1997. On April 3, 1997, U.S. Administrative Law Judge Peter A. Fitzpatrick fined two Cape Cod, MA, fishermen and corporations owned by them a record $4.33 million for more than 300 violations of federal fishery laws and regulations for New England scallop and groundfish fisheries between March 1994 and February 1995. In addition, the two individuals were banned from fishing in federal waters and had their 5 fishing-vessel and 1 fish-dealer permits permanently revoked. Violations included catching more fish than allowed, spending more days at sea than allowed, using too many crew on vessels, buying or selling illegal fish, using illegal gear, and making false statements to federal agents. Twelve captains who worked for the two fishermen also paid fines or were grounded for significant time periods. The two fishermen indicate they will appeal the fine.

In a second case, NOAA has finalized an unprecedented monetary settlement of a fisheries enforcement case with Sea Rich Seafoods, Inc., and Atlantic Gem Seafoods, Inc., of New Bedford, Mass., fish dealers charged in April with underreporting more than $1 million in fish and scallops.

"This settlement sends a strong message to federal fisheries dealers that illegal activity will not be tolerated," said NOAA enforcement attorney Chuck Juliand, who handled the case. Both companies have agreed to help with the ongoing investigation of others who may have illegally harvested and/or sold fish and scallops to Sea Rich or Atlantic Gem. "This investigation is still open," Juliand said.

In settling 113 counts of violating fishery management regulations, Sea Rich Seafoods, Inc., admitted guilt and agreed to pay approximately $1 million in fines, and will have its dealer permit permanently revoked. In addition, Sea Rich president Thomas R. Reilly agreed not to obtain any interest in a federal fish dealer permit for seven years and his three fishing vessel permits have been suspended for up to five years.

Charges against Atlantic Gem were dropped. In return, the company will conduct business under new operational and monitoring procedures for up to one year, while the principals attempt to sell the company. If there is no sale by June 30, 1998, NOAA is entitled to permanently revoke Atlantic Gem's dealer permit.

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Violations *continued from page 5*

The terms of the settlement are intended to remove Sea Rich from federal fisheries entirely and to encourage the sale of Atlantic Gem to a NOAA-approved buyer. "We got the best of both worlds," said NOAA co-counsel Mitch MacDonald. "The agreement forces this company to pay a heavy penalty while not pushing them into bankruptcy. It also encourages a sale of the company to new owners and better protects the jobs of about 200 people still working at the company." The fine amount is the estimated value of the illegally handled fish, with the final payments by Sea Rich due upon sale of the company or within two years, whichever comes first.

Lawsuit Challenging New England Groundfish Restrictions Dismissed

On February 6, 1997, a federal judge ruled that a groundfish recovery program that limits fishing days and closes some fishing grounds off New England's coast is legal. U.S. District D. Judge Brock Hornby's ruling against the Associated Fisheries of Maine acknowledged that restrictions will significantly affect the fishing industry and some coastal communities. However, in the decision upholding the New England Fishery Management Council's plan, Hornby dismissed all of the arguments advanced by the Maine fisheries group. In his decision, Hornby described the rebuilding plan as "rational, though controversial" and said it was appropriate to adopt "strenuous measures, even though they may unfortunately have a short-term drastic negative effect on the fishing industry."

The Maine group's lawsuit, initially filed in 1994 against an earlier version of the plan, questioned the legality of new rules intended to replenish depleted stocks of haddock, cod, yellowtail flounder and other groundfish species. Critics said the restrictions were not based on sound science, were overly restrictive, and could cause financial ruin. The judge said that the plan was developed legally and within the National Marine Fishery Service's mandate to build sustainable fisheries. The regulations were adopted as Amendments 5 and 7 to the Northeast Multispecies Fishery Management Plan, were adopted by the New England Fishery Management Council to rebuild depleted groundfish stocks on Georges Bank and in the Gulf of Maine.

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Magnuson-Stevens Fishery Conservation and Management Act: Proposed Guideline Changes

The National Marine Fisheries Service is seeking public comment on proposed changes to the guidelines used by the eight Regional Fishery Management Councils (Councils) and the agency as they develop and revise fishery management plans. Congress amended the Magnuson-Stevens Fishery Conservation and Management Act last fall, adding three national standards and revising provisions addressing overfishing and optimum yield. These amendments prompted the proposed guidelines according to officials with the Commerce Department's National Oceanic and Atmospheric Administration.

"While the national standard guidelines themselves have no immediate effect on the management of marine fisheries, the final version will influence the Councils and the agency in modifying and implementing management regimes that will have far-reaching effects on fish and fishermen," said Terry Garcia, Acting Assistant Secretary for Oceans and Atmosphere. "That's why it is so important that people comment now on the proposed guidelines, rather than waiting until plans and amendments based on the new guidelines are developed."

The Sustainable Fisheries Act of 1996 substantially amended the Magnuson-Stevens Act, requiring more conservative management of the nation's fisheries. While the Magnuson-Stevens Act has always required the prevention of overfishing, Congress has now defined the term, directed the agency to identify overfished stocks, and required the Councils and the agency to take specific actions to end overfishing and to rebuild overfished stocks.

Once in place, the new guidelines will steer the councils and the agency in reviewing and modifying existing fishery management plans and in developing new ones, to ensure that they conform to the national standards. The public is invited to comment on these proposed guidelines, which will be published in the Federal Register shortly. Written comments should be sent within 45 days of the proposed guidelines' appearance in the Federal Register to Dr. Gary C. Matlock, NMFS, 1315 East-West Highway, Silver Spring, MD 20910-3282.

~Grant Thompson

Updated Stock Assessments of Sea Scallop, Bluefish & Goosefish

Earlier this year, the National Marine Fisheries Service (NMFS) updated stock assessments for NW Atlantic stocks of sea scallop, bluefish, and goosefish (monkfish). Updates of stock assessments are prepared twice a year by the Northeast Regional Stock Assessment Workshop (SAW), and focus on species and stocks managed by the region's federal fishery management councils and commissions. The assessments use biological data collected through research vessel surveys of fish populations and sampling of commercial fish catches. These data are combined with information on fishing effort and practices, then fed into mathematical models to "hindcast" descriptions of fish populations and to forecast changes in the populations given various levels of fishing activity.

The report was a result of the 23rd meeting of the SAW's Stock Assessment Review Committee (SARC), convened at the NMFS Northeast Fisheries Science Center (NEFSC) in November 1996. Forty-eight people participated in the review of assessment methods and results, including U.S. and Canadian fishery scientists, fishery managers, management council staff, and scientific and technical persons from independent laboratories, academia, and the fishing industry.

Scientists report that the Georges Bank stock of sea scallop is rebuilding in areas presently closed to fishing (on Georges Bank and in Southern New England), while the rest of the sea scallop stocks continue to decline. Closed areas on Georges Bank and in Southern New England are providing sanctuaries for a portion of the sea scallop stock. Analyses showed improved survival rates and about three times as many scallops in the closed areas as in the adjacent, open areas of the Bank. Scallop fishing has continued in the open areas and in the Mid-Atlantic. Analyses of these areas showed moderate or low abundance and no significant increase in the number of new, young scallops.

Analyses also showed that two major management measures presently in use (increases in the size of rings on the scallop dredges and minimum crew sizes) are not are having their intended effect on scallop landings. The measures are intended, in part, to shift fishing mortality to scallops three years of age and older. Instead, since the measures have been in place there has been an overall shift in the size composition of landings toward smaller scallops than were present prior to this change in management strategy. The SAW recommended a reduction in fishing mortality on the Mid-Atlantic stock and caution in allowing harvest in any newly opened areas on Georges Bank.

Spawning stock biomass of bluefish, an important recreational species, are reported to be at about 40% of the level observed in the early 1980s. Scientists reported concern about the low numbers of young fish surviving to enter the fishery, and recommend a significant reduction in catch (removing 8% or less of the stock rather than 29%, as at present) in order to halt declines in the number of spawners.

Goosefish are also at low levels, with few older, larger fish in the population. Fishing pressure on goosefish continues a 10-year pattern of increasing exploitation. SAW 21 (1995) analyses described the large (80%) decline in all species targeted in the large-mesh fisheries, and showed the decline had encompassed cusk, wolffish, and goosefish, species less sought in the commercial fishery until recently. SAW 23 confirms those findings for goosefish, with analyses showing low numbers, high fishing mortality, and an alarming paucity of larger fish in the population. Recent landings are at an all time high and more than twice the 1988-1995 mean level. Egg production is presently less than one-third of the levels observed during the 1970s, a decade during which the commercial fishery for goosefish was much less significant than today. The SAW recommended significant reductions in fishing mortality and that redirection of effort from other fisheries onto this species be avoided.

NMFS Proposes Shark Quota and Bag Limit Reductions

A proposal designed to protect sharks by reducing the commercial and recreational catch of declining stocks of sharks and allowing them the potential to rebuild, was announced by the National Marine Fisheries Service. Officials are seeking public input on the proposal.

The fisheries service is proposing to reduce recreational bag limits for large coastal, pelagic and small coastal sharks and prohibit directed fishing for five species of sharks. In addition, a reduction in commercial quotas for large coastal sharks is proposed and a quota for small coastal sharks will be established for the first time. These interim proposals would remain in effect until a shark rebuilding program can be established and put in place.

The five Atlantic sharks that are considered to be extremely vulnerable to overfishing are whale, basking, sand tiger, bigeye sand tiger, and white sharks. The fisheries service proposal would prohibit the retention of these species. The fisheries service also seeks to limit white sharks to a catch & release only recreational fishery.

~Russell Brown

Second International Pacific Swordfish Symposium

The Second International Pacific Swordfish Symposium was held in Kahuku, Hawaii, March 3-6, 1997 under the auspices of the Interim Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean. This committee was formed to monitor fisheries for these transboundary species in international waters not currently within the jurisdiction of any international fishing treaty or agency. The objective of the symposium was to provide a forum for the exchange of information on recent developments in biological, fisheries oceanography, and resource assessment research on swordfish in the Pacific Ocean, and to promote international scientific collaboration.

Two hundred scientists and managers from seven countries participated in the symposium. Representatives from the United States, Japan, Mexico, Chile, Australia, the Philippines, and the island of Reunion presented descriptions of the swordfish fisheries of their respective countries. A representative of the International Commission for the Conservation of Atlantic Tunas presented a report on the Atlantic fishery, and an expert panel was convened to discuss stock assessment approaches and data needs.Three concurrent working group sessions focused on specific themes: biological input to stock assessment, fisheries oceanography and habitat, and resource assessment and monitoring.

Although the final report of this symposium has not yet been released, several conclusions can be drawn. First, it seemed clear that fishing effort and catches of Pacific swordfish were likely to increase in coming years. Although there were no data presented to suggest that the stocks are approaching full exploitation yet, this situation may change quickly because, as we have seen in the Atlantic, swordfish are quite vulnerable to intensive longline fishing. Further, there was a considerable amount of data presented at this meeting on the distribution of Pacific swordfish relative to large scale oceanographic features which will reduce the learning curve of fishing fleets.

Although there was an impressive amount of information presented on these fish, several important areas of uncertainty remain and should be resolved before management is needed. First, not surprisingly, stock structure is unknown and more effort should be expended to resolve this question. Second, even basic catch and effort data are lacking for many regions of the Pacific. And third, catch at size and age are needed to conduct any age structured analysis. Although swordfish anal fin rays appear to be useful and practical ageing structures, at least for young fish, there is currently little biological sampling or routine aging being carried out.

"This settlement sends a strong message to federal fisheries dealers that illegal activity will not be tolerated," said NOAA

The consensus of all the participants was that this workshop was highly successful in elucidating what is known and what is not known about these fish in the Pacific Ocean, in providing direction for future research, and in providing opportunities for collaborative research efforts. The fact that such a meeting was convened before a serious resource problem arose is very encouraging.

~Steve Berkeley

South Carolina Crustacean Research

Early life stages of economically important white shrimp and blue crabs must move through coastal inlets to the nursery areas in the marshes.Between 1992 and the present, collaborative research to investigate the transport mechanisms of larval decapods through coastal inlets was conducted in the North Edisto Inlet, SC. This process-oriented research has been supported by both the South Carolina Sea Grant Consortium and the Georgia Sea Grant Program.The interdisciplinary team of scientists were from Skidaway Institute of Oceanography, the South Carolina Marine Resources Research Institute and Tracor Applied Sciences and Systems, Inc. To date, analyses of plankton collected with nets indicate that oceanic water carrying the early life stages of white shrimp is pushed through the inlet during strong winds from the northeast which favor coastal downwelling conditions in late spring. Information on the hydrographic conditions and animal behavior has been numerically modeled to assist managers in forecasting their movements through coastal inlets. A major field effort in June 1997 will look at transport mechanisms within an inlet from a more stratified system, the Ogeechee River in Georgia which has more freshwater input than the North Edisto River in SC.

~Charlie Wenner

Causes of Biodiversity Reduction in Marine Fishes

Gene Huntsman and I have been working with other members of the AFS Endangered Species Committee for three years to prepare an official AFS List of Marine Fishes at Risk. This list is presently in draft form and will be published in a forthcoming issue of Fisheries. The entire subject of endangerment and marine fishes is contentious and I offer here some thoughts on the subject.

There are two major causes of fish species loss in marine ecosystems: habitat disturbance and excessive mortality to species with life history limitations. The most diverse groups of marine fishes tend to be those with low vagility. Small size, benthic habit, and demersal eggs are especially conducive to restricting gene flow, maintaining isolation, and promoting speciation. Many coral reef fishes exhibit low vagility and in addition live in habitats with great structural diversity, and long temporal environmental stability. Thus, coral reef habitats exhibit the highest fish species diversity. These same habitats are among the most vulnerable in the marine realm. Reefs and their resident biota are vulnerable to excessive turbidity, siltation, pollution, and physical destruction. Whereas some coral reef fishes (particularly those with pelagic eggs and larvae) have wide geographic distributions, those with low vagility tend to have restricted ranges and local habitat destruction can lead to extinction. The Florida Keys, off the southern USA, have an extensive but rapidly declining coral reef system, and a diverse marine fish fauna. These small islands have been undergoing rapid development (tourism, housing, marinas, etc.) for the past 40 years. Water quality has declined because of the increased eutrophication mitigated by inadequate sewage facilities and recreational vessel discharges. In addition, much of the nearshore reef and mangrove habitats have been physically destroyed by construction of marinas and other boating facilities. One small species of blenny, *Starksia starki* may have been extirpated and several other small marine fishes with restricted ranges in the USA are faced with the threat of extirpation in the next few years.

Another group of fishes which is particularly vulnerable to habitat degradation are the anadromous fishes. These animals occupy marine or estuarine habitats for most of their lives but must ascend rivers into freshwater to spawn. Because lotic habitats are extremely vulnerable to habitatal destruction, through dam construction, clear-cut logging and siltation, eutrophication, and other anthropogenic efforts, many anadromous fishes are faced with severe population decline and the threat of extinction. In the Pacific northwest of North America, 106 stocks of anadromous salmonids have become extinct and 214 more have recently been recognized to be at risk. Most species of another anadromous group, the sturgeons, have been classified in the IUCN Red List to be at extreme risk of extinction. Sturgeons are not only vulnerable because of their anadromous behavior, but also because they are long-lived and take a decade or more to mature. Thus, they are also vulnerable because of their life-history limitations.

Among marine fishes, the sharks and their relatives may be the most K-selected and thus vulnerable to excessive mortalities. Typically most common requiem sharks such as the sandbar shark may require 15 years to mature, attain an age of 30-40 years, and produce 8-10 young every 2-3 years. Such demographic parameters result in intrinsic rates of annual increase of 2-6%. These rates are similar to those in the great whales, sea turtles, and some terrestrial animals such as the African elephant. With such severe life-history limitations, it is no wonder that shark stocks are quickly overfished, and that population recovery requires decades. Other long-lived late-maturing marine fishes include wreckfish, some of the Pacific rockfishes and groupers. Among the Atlantic groupers, jewfish and warsaw grouper populations have been locally extirpated by overfishing and several other species may be threatened.

~J.A. Musick

Presidents Comments *continued from page 1*

Annual Meeting Symposia: The Section is co-sponsoring four symposia at the upcoming annual meeting in Monterey. A symposium co-sponsored with the Estuarine Section is on "Identifying and monitoring fish habitats and anthropogenic impacts: implications for estuarine/marine fisheries management." The second symposium is co-sponsored with the International Fisheries Section and is entitled: ***"Biology and fisheries for sharks in the MexUS-Pacifico and adjacent areas of the eastern Pacific Ocean."*** *A third symposium on* ***"Alaska's limited entry programs: bench mark for future U.S. policy"*** *is co-sponsored with the Socio-economics Section. And finally, a symposium on the* ***ecology and conservation of long-lived animals****.*

I'd like to iterate my comments from the Winter 1996 Newsletter since no lead persons regarding efficient communication among MFS members have come forward. To communicate more effectively among members, I propose that the Section establish an electronic mail system. Also, the opportunity exists to create a web page for our Section. The Computer User Section is willing to assist us in establishing a web site. We must find a lead person and members who can take on these tasks. I think this is a high priority for the Section and if you feel that you can be the point person on this project please let me know.

Have a nice summer, and I hope to see you in Monterey.

~Max Stocker, President

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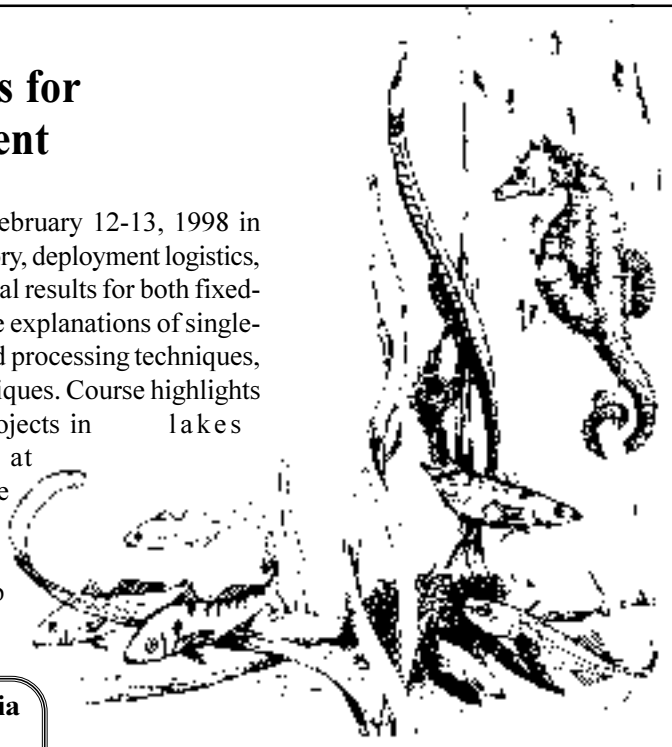
Using Hydroacoustics for Fisheries Assessement

Two-day short course October 23-24, 1997 and February 12-13, 1998 in Seattle, Washington. Covers basic hydroacoustic theory, deployment logistics, data collection and processing techniques, and typical results for both fixed-location and mobile survey techniques. Included are explanations of single-beam, dual-beam, and split-beam data collection and processing techniques, as well as target tracking and echo integration techniques. Course highlights examples from current and past hydroacoustic projects in lakes and rivers, in the marine environment, and at hydropower dams. For a course outline, contact Bruce Ransom, Hydroacoustic Technology, Inc., 715 NE Northlake Way, Seattle, WA 98105; (206) 633-3383; fax (206) 633-5912; email: hti@interserv.com; Web site: www.htisonar.com.



MFS Business Meeting - Monterey, California
Sunday, August 24 5:30 - 7:30 p.m.
Room: Ferante I

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