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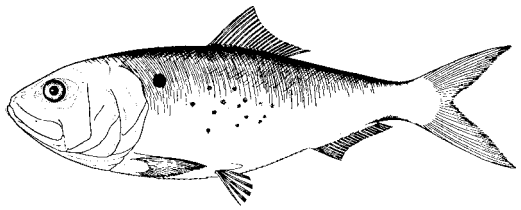
Species Profile: Atlantic Menhaden



In 1992 the Atlantic States Marine Fisheries Commission adopted a revised coastwide management plan for Atlantic menhaden. The plan established six triggers on which to annually assess the menhaden fishery and stock status. The following is an overview of the Atlantic menhaden — its life history, stock status, fisheries and ecological role. A future issue of *Fisheries Focus* will address the recently conducted peer review of the menhaden stock assessment.

Introduction

One of the most important species of fish on the Atlantic coast in terms of its direct and indirect impact on humans, is one that many people have not seen nor heard of - Atlantic menhaden. The lowly menhaden, a member of the family Clupeidae, which includes shad and river herring, plays a vital role in the ecology of our coastal waters.

Over the last two years, concerns have been raised about the status of the menhaden population and its relationship with other species. Locally perceived depletions of menhaden in waters of northeastern Florida and the Chesapeake Bay have been reported by fishermen, scientists and members of the public.

These concerns prompted the Commission's Interstate Fisheries Management Program (ISFMP) Policy Board to recommend that an external peer review of the Atlantic menhaden stock assessment be conducted. In addition to reviewing the assessment, the peer review should examine issues related to predator-prey interaction between menhaden and other species. The results of the external review will be published once the Peer Review Panel has finalized its report.

Life History

Atlantic menhaden (*Brevoortia tyrannus*) serve a vital role in the ecology of many coastal bays and nearshore waters. Menhaden are pelagic filter feeders, transforming phytoplankton into animal protein. In turn, they serve as prey for many piscivorous fish, sea birds, and marine mammals.

Atlantic menhaden are found in the coastal and estuarine waters of the Atlantic coast from Nova Scotia, Canada to central Florida but are most common from southern Maine to northern Florida. They undergo extensive north-south migrations and limited inshore-offshore movements along the coast each year. Most menhaden will congregate in the offshore waters of North Carolina below Cape Hatteras from November to March. Spawning reaches a peak during this time, although some spawning may take place throughout the year. Eggs are pelagic and both the eggs and larvae are transported inshore to estuarine nursery areas. Larvae selectively feed on zooplankton, preferring certain species over others. As they metamorphose into juveniles, the branchial basket and gill rakers undergo a transformation, which enables menhaden to strain the water for the smallest plant material available — phytoplankton.

As menhaden begin to migrate northward during the spring, spawning activity decreases while occurring closer and closer to shore. Some spawning may occur within coastal bays in the northern part of their range. There are definite spring and fall spawning peaks in the Mid-Atlantic and North Atlantic, and some spawning takes place in the winter in the shelf waters of the Mid-Atlantic. Fecundity (the number of eggs produced by a single female in one spawning season) ranges from 38,000 to 700,000, depending on the size of the fish.

Most Atlantic menhaden reach maturity by the end of their second full year of life. About 10 percent have been estimated to be mature at age one and 90 percent at age two. Menhaden can live to 8 to 10 years although fish older than age four have been rare in the commercial catch during periods of low abundance. As stocks have rebuilt from the low abundance seen in the late 1960s and early 1970s, older fish have been observed.

Atlantic menhaden form large, dense schools of similarly sized and aged individuals. This schooling behavior makes them vulnerable to harvest by man and easy targets for their preda-

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The Atlantic States Marine Fisheries Commission was formed by the 15 Atlantic coastal states in 1942 for the promotion and protection of coastal fishery resources. The Commission serves as a deliberative body of the Atlantic coastal states, coordinating the conservation and management of nearshore fishery resources, including marine, shell and anadromous species. The fifteen member states of the Commission are: Maine, New Hampshire, Massachusetts, Rhode Island, Pennsylvania, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida.

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Upcoming Meetings

1/11 - 14:
ASMFC Meeting Week (American Eel Management Board; American Lobster Management Board; ACCSP Intercept Committee; Atlantic Herring Section; Atlantic Menhaden Advisory Committee and Management Board; Striped Bass Management Board; Summer Flounder, Scup and Black Sea Bass Management Board; Tautog Management Board; Winter Flounder Advisory Panel and Management Board), Ramada Plaza Hotel, Alexandria, Virginia; (703)683-6000.

1/19 & 20:
ASMFC Shad & River Herring Technical Committee, U.S. Fish and Wildlife Service, Room 200B, Arlington, Virginia.

1/21:
New England Fishery Management Council Herring Oversight Committee, Holiday Inn, Peabody, Massachusetts.

1/22:
Trends & Future Challenges for U.S. National Ocean and Coastal Policy, Hotel Washington, Washington, D.C.; (302)831-8086.

1/27 - 28:
New England Fishery Management Council, Sheraton Portsmouth, Portsmouth, New Hampshire.

2/2 - 4:
Mid-Atlantic Fishery Management Council, New York Marriot, New York City, New York.

2/8 - 10:
Large Whale Take Reduction Team, Inn at the Crossings, Providence, Rhode Island.

2/16 & 17:
ACCSP Operations Committee, Jacksonville, Florida.

2/17 & 18:
ACCSP Advisory Committee, Jacksonville, Florida.

2/24 & 25:
New England Fishery Management Council, Radisson Hotel, New London, Connecticut.

3/1 - 5:
South Atlantic Fishery Management Council, Sea Palms Resort, St. Simon's Island, Georgia.

3/15 - 18:
ASMFC Meeting Week, Ramada Plaza Hotel, Alexandria, Virginia; (703)683-6000.

From the Executive Director's Desk

Today is New Year's Eve. There is a very pretty, light snow falling outside; but with the promise of a winter storm this weekend as the extended Holiday winds down. Welcome to the last year of the Old Millennium! One day moves consistently to the next, but we seem to have a need for marking time in a fashion that makes transitions significant. Will tomorrow really be any more significant a day in the grand scheme than Saturday will be? Or next Tuesday? Today's light dusting of snow will become tomorrow's frigid sunshine which will become Saturday's storm. Regardless how we measure and mark time, change is constant.

And we must continually respond. At the Atlantic States Marine Fisheries Commission we are reflecting one of the great changes that is gradually but inexorably overtaking political life all over the world – a greater sense of participation by a larger cross-section of interest groups. The clear trend is toward political institutions with increasingly democratic and republican characteristics, spurred on by a revolution in information technologies. The Commission has worked and experimented with a number of ways to respond to this trend, including greater public outreach, use of formal advisors and expanding the effective participation of all Commissioners in Commission programs. Beginning with its January Meeting Week, the Commission will be piloting a new procedure for use in 1999 that takes this process one step further.

During 1999 the structure of the Management Boards that work under the Interstate Fisheries Management Program will change. Currently, individuals serve as Management Board members, with each state or other agency (including the Legislators and Governors' Appointees) able to designate an individual to serve. However, during the 1999 pilot program, rather than individuals serving as Board members, the states or agencies themselves will be the members – and all three Commissioners from a state will jointly determine the state's position on any matter before a Board. There are really two positive signs being put up here. The first is to recognize that all of ASMFC's Commissioners have an important role. This is especially true for fishery management programs that must be implemented "back home," with support from state legislatures and fishing constituencies. The second is to reemphasize the essential character of the Commission as an agency of its member states, with the job of assisting the states in carrying out their constitutional and statutory responsibilities for coastal fisheries. The Commission exists not because the states need some third party to help them through difficulties, but rather because they need each other in order to meet their state-mandated responsibilities. This is a fundamental principle that underlies the Commission's new Strategic Plan.

There may be, however, a cost in terms of lost efficiency in decision-making; and that is why the 1999 program is characterized as a one-year pilot. Having larger numbers of people involved in making decisions can function well, but will require a commitment by everyone involved to a workable process. The old adage is that there are two things one should never be required to watch because they are so alike: making sausages and making fishery management decisions. (Well, perhaps a bit of literary license there.) With this in mind, let me offer some suggestions for making our meetings work well.

Be precise and to the point – step into the discussion only when you really have something to contribute, and that has not been said before. Too often our collegial fishery management institutions (state and federal!) conduct overlong discussions that seem to be going nowhere. Often, many people seem to be speaking just to be heard. Remember the basic idea here – you want to influence outcomes, rather than just make your point. Offering new ideas or examples is helpful to a thoughtful consideration of the question. Rehashing old ground is inconsiderate of other members' time. How often have we seen comment around the table that just digs the speaker into a worse hole? Be sure that what you say is going to help the Board come to a better decision. Remember, *Robert's Rules* technically gives one only two opportunities to speak on any question. A good, efficient Board meeting is as much the responsibility of the members as the Chair; and requires the commitment of all participants to an effective process.

The public can be helpful here too. Remember that Board meetings are different from public hearings. Board meetings are a chance for the members to consider the issues and make decisions. They are not

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From the Executive Director's Desk (continued from page 3)

open, free-for-all debate. Input to clarify the facts and the issues is helpful. Ranting is not; and in fact is counterproductive – as are remarks that are personally insinuating or not in good taste. Everybody on the Board really is trying to do a good job and the right thing. There is a reason behind everything being considered; even if the decisions are difficult in the short term, or toward some segments of the fishery. What's important is finding out whether the reasons are persuasive, not questioning peoples' motives or commitment. The Board's job is to protect the resource, not to make everybody happy or avoid discomfort. Board members want and need the public's constructive help.

Sound like these are some ideas for New Year's resolutions? I'll leave that for individual consideration – "consideration" being an important concept here. This pilot program can work successfully if everyone tries to make it so. If it is successful, the states will be making better decisions for coastal fishery resources; and everybody will come out ahead in the long run.

And permit me, as well, this opportunity to extend to all Commissioners and staff, and all of our friends and colleagues, every blessing for success and happiness in the New Year!

SAFMC Phases out *Sargassum* Harvest

In December the South Atlantic Fishery Management Council (Council) voted to phase out the harvest of *Sargassum*, a pelagic seaweed found off the coast of the Southeastern U.S. Earlier this year the Council designated *Sargassum* as essential fish habitat (EFH) for species managed under its coastal pelagics fishery management plan, which include king mackerel, Spanish mackerel, cobia, and dolphin.

A total harvest of 448,000 pounds of the seaweed have been landed since 1976 by a sole source. The phaseout will allow 50,000 pounds to be harvested through January 1, 2001, when the phaseout will be complete. Fishing will only be allowed in the area seaward of North Carolina beyond 100 miles from shore.

Sargassum harvest has been a contentious and difficult issue for the Council. The harvest of *Sargassum* has been viewed as contradictory to its designation as EFH. Bycatch of juvenile fish and turtles in harvested *Sargassum* are another concern, along with reports of a recent decrease in *Sargassum* abundance. In opposing views, harvester Aqua-10 Laboratories contends that its harvest method actually enhances seaweed reproduction. Aqua-10 contends to have witnessed a 47 percent increase in *Sargassum* growth in Gulf Stream waters in recent years. Products made from *Sargassum* extracts are currently used in livestock feed and dietary supplements; however, use of these extracts could help eliminate the use of antibiotics in livestock, provide human medical benefits and reduce the amount of nitrogen in hog waste-a major environmental concern for North Carolina.

The paucity of scientific data on *Sargassum* distribution, abundance and ecological relationships has underlain the uncertainty of determining harvesting impacts. The Council's approach will provide for future protection of *Sargassum* in federal waters, and a phaseout of the current fishery.

For additional information, please contact Robin Peuser, Habitat Specialist, at (202)289-6400 or rpeuser@asmfc.org.

MARFIN Conference Held

The 11th Annual MARFIN (Marine Fisheries Initiative) meeting was held December 9 & 10, 1998 in Tampa, Florida. MARFIN is a Gulf and South Atlantic program that promotes and endorses cooperative research activities that optimize economic and social benefits from marine fishery resources of the southeast region. The MARFIN program has also recently been expanded to the northeast region.

The MARFIN conference included four sessions on bycatch, reef fish, groundfish and estuarine fishes, and other topics. All sessions included presentations on ongoing research projects in support of key southeast regional management issues. Presentations in the bycatch session included research on bycatch in pelagic longline fisheries; bycatch reduction device technology; shrimp bycatch reduction impacts; development of a large marine ecosystem model for the Gulf of Mexico; and Florida inshore bait shrimping bycatch exclusion. Presentations in the reef fish session included research on recruitment indices of early juvenile fishes; age and growth of various species; stock structure research; and effects of habitat and fishing mortality on juvenile fishes. Presentations in the groundfish and estuarine fishes session included fishery-independent assessment, reproductive studies and age structure of red drum. Other projects funded through the MARFIN program and presented during this conference included fishing vessel monitoring systems; economics of for-hire fleets in the South Atlantic region; fishery effort and resource allocation in the Florida stone crab fishery; and application of parasite fauna to stock identification and fishery management.

MARFIN continues to be a successful program in providing funds for research activities to support management in the southeast region. The request for proposals for 1999 MARFIN funding will be published in the Federal Register in the next several months.

For more information, please contact: Dr. Lisa L. Kline, Director of Research & Statistics, at (202)289-6400 (lkline@asmfc.org).

THE SEARCH FOR ACCURATE RECREATIONAL FISHERY STATISTICS

An opportunity to join one of four roundtables to voice your views and concerns and develop a recreational fisheries statistics program.

HOW WOULD YOU DETERMINE RECREATIONAL CATCH AND EFFORT?

If you had the opportunity to develop a program that would measure the number of saltwater anglers and what they were catching, how would you do it? Here is an opportunity to make your voice heard.

THE NEED

Fishery management plans and regulations, must be based on reliable catch statistics, but current recreational catch statistics are often viewed with suspicion. In today's world, with more and more anglers and fewer fish, we need accurate statistics, generally on a state-by-state basis, to properly manage and conserve fish stocks.

Saltwater anglers have been searching for more accurate statistics for a number of years. Because there are over 17 million saltwater recreational anglers nationwide, usually it is not possible for agencies to survey each individual angler (except possibly in small fisheries). So, management agencies have to rely on a variety of methods to try to accurately sample a cross-section of anglers.

CURRENTLY

The current system to measure catch and effort for most species relies primarily on the Marine Recreational Fisheries Statistical Survey (MRFSS). This survey is conducted every year by the National Marine Fisheries Service in two-month periods called "waves." The survey was originally designed in the late 1970s to measure catch and effort *for the entire coast or by region.* As the demand increases for information on a state-by-state basis (for such things as quotas), the utility of the MRFSS is being stretched - in some cases beyond what it was originally intended for.

THE FUTURE

Managers and fishermen are looking for "a better way" to collect and have access to the information that they need on their fisheries. So, the states and the federal government, through the Atlantic Coastal Cooperative Statistics Program (ACCSP), have joined forces to develop a better coordinated and improved method to collect recreational and commercial fishery statistics. Representatives from recreational and commercial fisheries were asked to help design such a program, but as in any effort of this large magnitude, not all of the needs of each of the diverse number and type of recreational fisheries could be considered. As a result, the ACCSP, in the absence of broader input, likely will incorporate much of the MRFSS (or similar program) into the recreational data collection program but little else to help deal with specific needs of individual fisheries.

THE OPPORTUNITY

Many recreational fishermen along the Atlantic coast have complained about current data collection efforts for their fisheries. Therefore, the ACCSP wants the recreational fishing community to participate in forming the sampling program for recreational fisheries statistics. Through a series of "roundtables" along the Atlantic coast, the ACCSP wants to provide information directly to you about current plans and MOST IMPORTANTLY, to hear your concerns and ideas about recreational fishing statistics.

These roundtables will require aggressive input from recreational anglers - *be prepared to participate!!* To help the discussions, information will be provided about how some state agencies have tried to improve current recreational statistics collection.

Q: What makes this different from other meetings?

A: These roundtables will be conducted by "outside" facilitators familiar with the recreational fishery. The ACCSP partners will be there - but as equal participants with the recreational community.

Q: Who are these "facilitators"?

A: All of the facilitators have been on the "battle lines" of recreational fisheries management and are familiar with the management process and politics. You may know them - or have worked with them in the past:

- Gil Radonski, former president of the Sport Fishing Institute and past member of the Mid-Atlantic Fishery Management Council; Currently, Director of the American Sportfishing Association Fund.

- Dick Stone, former head of the Highly Migratory Species Division of the National Marine Fisheries Service (NMFS) and, before that, head of the Office of Recreational Fisheries for NMFS; Also recipient of the Heddon Hall of Fame award for outstanding contributions to recreational fisheries management.

- Andy Loftus, past director of science for the Sport Fishing Institute/American Sportfishing Association and former striped bass biologist for the State of Maryland.

Q: Will "they" listen?

A: A good statistics program depends on two basic ingredients: (1) sound statistics and sampling, and (2) public acceptance. The ACCSP is committed to following-up on every suggestion and providing feedback on what is possible and what is not. Additionally, the three facilitators will conduct a follow-up to these roundtables with the recreational community along the coast and in Washington, D.C. to make sure that the best possible program is developed.

SPECIFICS

Roundtables are being setup for four locations along the Atlantic coast.:

February 6, 1999	Ft. Lauderdale, Florida
February 13, 1999	Virginia Beach, Virginia
February 20, 1999	Pt. Pleasant, New Jersey
Tentative	Providence, Rhode Island
Tentative	Charleston, South Carolina

For more information, or to make sure that you receive information on roundtables, please contact:

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tors. Fish of the same age are progressively larger in more northerly fisheries, but mature at smaller sizes in southern regions. Minimum size at maturity in the South Atlantic is 180 mm fork length (FL) and 210 mm FL in the Mid-Atlantic. There is evidence that growth rates have changed in response to fishing pressure or stock size: fish of the same age were larger in the late 1960s and early 1970s (stock size was at a low), than in the late 1960s and early 1970s (stock size was at or near historical high). An alternative hypothesis for this change is that menhaden in years of high abundance are smaller than menhaden in years of low abundance because the former were smaller at the time of recruitment, not because of any difference in growth rates after recruitment.

Recreational Fishery

No directed recreational fisheries exist for Atlantic menhaden. However, menhaden are utilized extensively as bait in a variety of recreational fisheries including striped bass, bluefish, king mackerel and blue crab.

Commercial Fisheries

The Atlantic menhaden commercial fishery was first established in the late 1600s and early 1700s to obtain fish for agricultural fertilizer. In the early 1800s, an industry developed to obtain oil from menhaden. Annual landings in recent years have ranged from a high of 712,000 metric tons (1956) to 161,000 (1969) for 1955-97. In 1997, menhaden accounted for 35 percent of the commercial landings for the Atlantic coast.

There are two types of commercial fisheries for Atlantic menhaden, a reduction fishery and a bait fishery. The reduction fishery typically utilizes large carrier vessels from 160 to 175 feet in length, that are supported by smaller (36-40 foot) purse vessels or catcher boats. The bait fishery consists of smaller (45-90 foot) purse vessels. Currently, there are two reduction plants operating on the Atlantic coast, one in Reedville, Virginia and one in Beaufort, North Carolina. Most of the product from the reduction fishery is sold to livestock and cosmetics interests as fish meal, soluble proteins, and oils; the rest is used in pet food products and fish bait.

Although basic fishing techniques have remained largely unchanged through the years, innovations in technology have vastly improved the efficiency of the modern menhaden fleet. Spotter planes were first utilized in 1946 and were initially used to locate large schools of menhaden. Presently, spotter pilots actually direct the setting of the net around the school. By the late 1950s, aluminum purse vessels replaced wooden vessels. These vessels are more lightweight, maneuverable and faster than their predecessors. Hydraulic power blocks were introduced to the fishery in the mid-1950s and made it much easier to retrieve the net thereby reducing the number of crew. Nylon purse seines replaced natural fiber nets by the mid-1950s. This material is stronger and reduces the tendency for a net to tear when there is a large catch. A typical purse seine is 1,200 feet long, 60-90 feet deep, with 3/4 to 7/8 inch bar mesh. Large fish pumps on the carrier vessels rapidly transfer fish from the net to the vessel's hold. Most, if not all, of the carrier vessels have refrigerated holds, enabling the vessels to remain at sea for extended periods of time, rather than having to bring their catch in every day.

The Atlantic menhaden commercial fishery has two annual phases: a summer and fall fishery from Maine to northern Florida, and an intensive fall and winter fishery off North Carolina between Cape Lookout and New River Inlet. The summer fishery usually begins in April or May as surface schools appear off northern Florida and the Carolinas. By mid to late May, fishing in Chesapeake Bay commences, and by June schools migrate into New England waters. The majority of Atlantic coast landings are made from June to September. The fall fishery begins in early November as large schools of all ages and size classes concentrate around the Carolina Capes. This fishery usually ends by mid-January as schools disappear south of Cape Lookout, North Carolina.

The Beaufort Laboratory of the Southeast Fisheries Science Center (NMFS) collects biostatistical data from the menhaden reduction fishery. Preliminary sampling began during 1952-54 in the Mid-Atlantic and Chesapeake Bay areas, and expanded the sampling to cover the entire range of the Atlantic fishery in 1955. Sampling has continued uninterrupted each year since. Size, sex and age data are collected from individual fish and catch and effort data including numbers of fish caught, pounds, numbers of sets, and area fished are obtained from logbooks or Captains Daily Fishing Records (CDFRs). Data from the bait fishery are also collected by NMFS and are conservatively estimated at 10 percent of the total Atlantic menhaden harvest annually.

Stock Status

Atlantic menhaden stocks were drastically reduced during the 1960s. Annual landings dropped from 671,400 metric tons in 1955 to about 200,000 mt per year from 1966-69. As population size decreased, the age structure also changed. Fish older than age three became scarce and fish older than age four were practically nonexistent. Many northern processing plants were closed — particularly in New England which depended on older fish. The stock began to recover in the early 1970s with the appearance of age three fish in the catch. Catches continued to improve in the 1980s, however, the size of the spawning stock remained low. During the 1990s, the spawning stock has in-

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creased to near historic levels of abundance but recruitment has been declining. While the spawning stock is currently healthy, spawning stock biomass will decline over the next few years, unless the trend in recruitment is reversed. There has been a general decline in the stock size (numbers and weight) during this decade, coinciding with the decline in recruitment.

Ecological Role

Atlantic menhaden occupy two distinct types of feeding niches during their lifetime. Larvae are size selective plankton feeders and filter feeders as juveniles and adults. Upon entering estuarine nursery areas, larval menhaden appear to be extremely selective for prey of certain sizes and species. Juvenile and adult menhaden strain zooplankton, phytoplankton and chain-forming diatoms from the water column. Because of their tremendous numbers, individual growth rates, and seasonal movements, menhaden annually consume and redistribute large amounts of energy and materials, including exchanges between estuarine and shelf waters.

Important Atlantic menhaden predators include bluefish, striped bass, weakfish, king mackerel, bluefin tuna, and sharks. For the most part, prey selection among menhaden predators appears to be predominately opportunistic. However, since menhaden are so widespread and abundant in estuarine and nearshore systems, they are frequently an important component of many fishes diets during one or more periods of the year. Menhaden are also important in the diets of many piscivorous birds such as brown pelicans, ospreys and common loons. Menhaden have also been reported as prey for some marine mammals as well. Because Atlantic menhaden are eaten by predators in several ecosystems, they serve as a direct link in the food web between detritus and plankton and top predators.

Atlantic Coastal Management

Atlantic menhaden are currently managed through a Fishery Management Plan (FMP) approved by the Commission in 1992. The FMP outlines an annual review process conducted by the Atlantic Menhaden Advisory Committee (AMAC) which assesses the status of the stock on a coastwide basis and provides management recommendations to the Atlantic Menhaden Management Board. Management authority is vested in the states, through the Commission, since the vast majority of harvest occurs in state waters. Each spring, AMAC reviews stock status based on a set of six "trigger variables" which were chosen to reflect changes in the reduction fishery and the stock as a whole. The six trigger variables are: (1) landings in weight; (2) proportion of age-0 fish in the landings; (3) proportion of adults (age-3+) in the landings; (4) recruits to age-1; (5) spawning stock biomass; and (6) percent maximum spawning potential (%MSP). All of the data for the triggers are derived from the menhaden reduction fishery, while data from other fisheries and information sources are evaluated as available annually by AMAC. AMAC then forwards its review of stock status and any management recommendations to the Board for their consideration and action.

Last spring, AMAC concluded that there was more than sufficient Atlantic menhaden spawning stock to produce adequate recruitment. Recent poor recruitment appears to be unrelated to fishing effort and was more a product of environmental variation. Therefore, AMAC recommended to the Board, that no further restrictions on the menhaden fishery be implemented in 1998. The Board concurred with this recommendation but also requested that a peer review of the menhaden assessment be conducted during 1998. This review was conducted in November and the report will be presented to the Board during its meeting this January in Alexandria, Virginia. For more information please contact, Dr. Joseph Desfosse, FMP Coordinator, at (202) 289-6400.

ACCSP Program Design Approved

The dedication and hard work from countless numbers of managers and fishermen along the Atlantic coast paid off on December 14, 1998 in Philadelphia (Lester), Pennsylvania, when the Program Design for the Atlantic Coastal Cooperative Statistics Program (ACCSP) was approved by the ACCSP Coordinating Council. The Program Design will guide the Program partners into the next stage, implementation. The new stage will require each partner to analyze present programs and make legislative and regulatory changes required to implement the ACCSP. With the cooperation of industry and fisheries managers, the ACCSP will provide the basis for sound management decisions, to the benefit the resource and the industry. Copies of the Program Design should be available for distribution by the end of January 1999.

One facet of the Program is an Internet-accessible database management system, available to the public and fisheries managers. Two prototypes for the database (the State of Florida and the National Marine Fisheries Service Northeast Research Center) are in development and it is hoped that they will be operational (on a limited basis) during the winter of 1999. These two locations were chosen as result of present capabilities and large databases that would provide an excellent test of the proposed design. The Coordinating Council was given a preview at the December meeting by the system development contrac-

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IMO Approves U.S. Mandatory Ship Reporting System to Help Protect Endangered North Atlantic Right Whales

Next summer endangered North Atlantic right whales will receive timely protection from ship strikes due to recent actions by the United Nation's International Maritime Organization (IMO). The body voted unanimously for July 1999 implementation of a mandatory ship reporting system in two critical habitat areas off Massachusetts, coastal Florida and Georgia key feeding and nursery areas for right whales.

"The reporting system will improve the chances that the remaining 300 or so highly endangered right whales will escape deadly encounters with large ships passing through essential whale habitat off the east coast," said Terry Garcia, assistant secretary of commerce for oceans and atmosphere. "The decision significantly improves protection for the slow-moving whale since ship strikes account for 50 percent of known right whale deaths. We believe this mandatory reporting system is essential if we are to ensure the survival of these highly endangered animals."

The proposal was initially developed by the Commerce Department's National Oceanic and Atmospheric Administration (NOAA), in conjunction with the Marine Mammal Commission. The final decision to seek international approval of the system by the International Maritime Organization was made by President Clinton in April.

The reporting system will act in the same manner as a road sign in a school zone area in that it will warn transiting ships about the presence of right whales. The ship reporting system requires ships weighing more than 300 gross tons entering these areas to notify the U.S. Coast Guard. In return, the mariner will be provided with automated information about the last known locations of any right whales. The data will be regularly updated by the Coast Guard and private spotters scouting the area form aircraft. Implementation of the mandatory reporting system will not begin until July 1, 1999, in order to provide sufficient notice to mariners operating in the areas. Congressional authority that provided the Coast Guard with the authority to implement the system came from an effort spearheaded by Congressman William Delahunt (D-MA).

Several thousand right whales once existed in the North Atlantic Ocean. Years of commercial hunting at the turn of the century severely depleted the stocks. Whalers considered the animal the "right whale" to hunt because they were slow moving, migrated close to shore, and stayed afloat after being killed. Today, despite more than 60 years of protection, right whales have not fully recovered.

NOAA's National Marine Fisheries Service has taken several steps to protect this species, including establishing federally – designated critical habitats and providing right whale precaution on nautical charts and in other navigational aids. For example, an aircraft survey system has been implemented off Massachusetts for the past two years in cooperation with the state. Biologists in boats and aircraft go out several times a week to survey waters that serve as shipping lanes for commercial traffic and feeding grounds for right whales. When they locate right whales NMFS-led teams broadcast whale alerts to mariners via radio, faxes, and Internet postings.

The effort to address the issue of ship strikes, however, has proven difficult. Agency officials believe that IMO-approved ship reporting system provides a critical tool to address this important issue.

The northern right whale is a medium-sized baleen whale. Adults are 45-55 feet long. Distinctive features include no dorsal fin, a large head, narrow upper jaw, strongly bowed lower jaw. Calving occurs in the winter along the southeast coast of the U.S. Calves nurse for at least nine months. Age at sexual maturity is five to nine years, with females giving birth to one calf every three to five years. The northern right whale was listed as endangered throughout it range on June 2, 1970, under the Endangered Species Conservation Act of 1969.

The International Maritime Organization, a specialized agency of the United Nations, provides a forum for countries to address international shipping issues. For more information, please contact Susan Weaver, NOAA Constituent Contact, at (202)482-2610 or Susan.A.Weaver@noaa.gov.

ASMFC Crossword Answers

ACCSP Program Design Approved (continued from page 8)

tors, Tom Fazio and Glenn Chambers of ICF-Kaiser. Each partner will provide an evaluator to be trained on the new system and provide advice on improvements. Updates on prototype implementation will be presented in future newsletters.

The Council also passed a $1.492 million budget for ACCSP in 1999. This budget allows for implementation of the ACCSP commercial data collection program in Georgia and perhaps one other jurisdiction, socioeconomic studies on the commercial industry, development of evaluations for the for-hire and trip ticket programs, continued development of the database management system, and staff.

The ACCSP Outreach Committee (formerly the Informational Work Group) will focus on publicizing the benefits of the Program to the commercial and recreational fishing communities through publications and forums. Outside contractors will conduct recreational forums this winter (see pages 5 & 6) and commercial forums in the near future. The forums will serve as a conduit for information from the fishing public on the design of the Program and how it may be improved.

You may obtain a copy of the Program Design and further information from the ACCSP Program Manager, Connie Young-Dubovsky at (202)289-6400 or Connie_Youngdvbovsky@fws.gov.

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