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# Habitat Hotline Atlantic

Issues of Concern for Atlantic Marine Fish Habitat

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## Magnuson-Stevens Act Strengthens Habitat Mandates

*The new NMFS and Council habitat mandates are not quite as powerful as a regulatory 'hammer' or as threatening as a set of regulatory 'teeth,' but do provide a louder voice for fishery managers on habitat issues, and a step in the right direction.*

On October 11, 1996, President Clinton signed into law the Sustainable Fisheries Act, P.L. 104-297. This legislation is perhaps better known as the Magnuson-Stevens Act, or the most recent reauthorization of the Magnuson Act; the premier fisheries management tool for federal marine fisheries. Along with a number of other significant changes from earlier versions of this law, habitat mandates for the National Marine Fisheries Service (NMFS) and federal fishery management councils are strengthened in the most recent iteration.

**New Habitat Mandates** - The new law requires several timely actions from NMFS and federal fishery management councils which are anticipated to result in strengthened coastal habitat protection. First, NMFS is required to develop guidelines for the identification of essential fish habitat (EFH), defined as "those waters and substrate necessary to fish for spawning, breeding, or growth to maturity." Guidelines must also be developed for the identification of threats to EFH, and EFH conservation and enhancement measures. These guidelines must be adopted by regulation by April 11, 1997, which only gives NMFS six months to do all the scientific leg work, and invite and respond to citizen input; a formidable task.

A first draft of the guidelines, entitled *Framework for the Description, Identification, Conservation and Enhancement of Essential Fish Habitat*, was released on January 2, 1997 for public review. Once the guidelines are in place, NMFS is required to provide each council with recommendations and information in order to assist

in applying the guidelines to each council fishery management plan (FMP). Council FMPs must be amended to include the EFH information by October 11, 1998.

The second category of habitat mandates in the Act addresses the process by which NMFS and the fishery management councils comment on proposed activities that may impact fish habitat, such as the dredging or filling of wetlands. Under the new mandates, federal agencies are required to notify NMFS of any activity which may be authorized, funded, or undertaken by the agency that may adversely impact the EFH identified in council plans. NMFS is required to recommend conservation measures for these activities, as well as for EFH affecting activities proposed by any state agencies. Likewise, councils are required to comment on activities proposed by state or federal agencies that are likely to substantially affect any habitat, including EFH, of anadromous fishery resources under their authority. Federal agencies in receipt of comments from either NMFS or a council must respond within 30 days in writing with a description of the measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the proposed activity on EFH. This consultative process is also addressed in the draft guidelines.

**Mandate Effectiveness** - These mandates do not provide any regulatory authority for NMFS or the Councils in the sense of a (continued on Page 2)



"final say" on what happens to EFH; however they do, in essence, provide federal fishery managers with what could be considered to be a louder voice - or at least one that must be responded to. Now federal agencies are *required* to respond back to council and NMFS comments regarding EFH. This requirement will ensure that fish habitat concerns are taken into consideration, and establish an administrative record.

Although the effectiveness of these mandates is not guaranteed, their inclusion in the Act is a tremendous step, indicating Congress' recognition of the importance of addressing habitat conservation in concert with fisheries management. It gives fisheries managers an additional say in habitat management, including the opportunity to designate what habitat is important.

**ASMFC Participation** - Since the ASMFC's fishery management program is primarily enabled under the Atlantic Coastal Fisheries Cooperative Management Act rather than the Magnuson-Stevens Act, the Commission is not bound by the habitat mandates discussed above. However, the Commission is required to address habitat in its fishery management plans, which in fact, is the current area of focus for its Habitat Program. In past collaboration, the Commission worked with the NMFS Office of Habitat Protection to develop the habitat section for the recent weakfish amendment. This project indicated important weakfish habitat by incorporating data gathered for fisheries research into GIS format, which modified an approach developed using summer flounder data by NMFS and the National Ocean Service (see *Habitat Hotline Atlantic #15*). The degree to which ASMFC will address the issue of EFH has yet to be decided.

The Commission has taken an active interest in the development of the EFH guidelines. Commission representatives met with NMFS scientists in mid-December to discuss approaches for EFH identification and guideline development. In addition, the ASMFC's Habitat Committee will participate in two workshops sponsored by the American Fisheries Society, World Wildlife Fund, and NMFS; scheduled for January 21-22, 1997. The first of these workshops will facilitate the development of input on the draft guidelines. The second will investigate the application of the guidelines to summer flounder. Comments on the guidelines will be drafted at a meeting of the Habitat Committee on January 22, and the level of desired participation for the Commission will be discussed.

The Habitat Committee could conceivably propose that the Commission adopt a similar approach in their fishery management planning program, including

identifying essential habitat for each species under management. A common state/federal approach to habitat protection is warranted by a number of factors, including: 1) common habitats are utilized by state and federally managed fisheries; 2) much of the habitat considered to be essential is expected to lie within state waters; 3) federal and state fishery managers are in a similar situation regarding their concerns about the need for conservation of marine fish habitat and their lack of regulatory authority; and 4) interagency and inter-organizational cooperation will be extremely important since knowledge housed in state, federal, and private institutions will be necessary to implement the federal mandates. Ultimately, the degree to which the Commission will be involved in the development and implementation of these mandates and whether they will adopt a similar approach, will depend upon the amount of cooperation provided by NMFS and the degree of support provided by ASMFC Commissioners.

**Public Involvement** - The guidelines that NMFS develops to describe EFH will include the ultimate factors by which the relative importance of coastal habitats are classified and considered by Federal agencies with habitat regulatory authority. The impacts of this work will no doubt extend much further than just the Federal regulatory process, as local and state agencies consider its utility on more parochial terms. There are extreme implications for coastal habitat conservation tied up in this work, and it is vital that organizations or agencies with an interest in fish habitat participate in the process being undertaken by NMFS. Because of the tight time schedule imposed by the Act, the development and implementation of this work is on a fast track. The comment period for the first Advanced Notice of Proposed Rulemaking (ANPR) in which NMFS asked for general comments on their approach and information, closed December 9, 1996. The draft guidelines were just released, and comments are due by February 12, 1997.

Organizations with a notable interest should investigate attending the AFS sponsored stakeholders meeting, scheduled for January 21, 1997 in Atlantic City, NJ. *For information on the AFS workshops, contact Betsy Fritz, 301/897-8616 X-212. For further information on EFH or a copy of the draft guidelines, please contact Lee R. Crockett, National Marine Fisheries Service, 301/713-2325.*



## Exotic Species Transported in Ship Ballast Wreak Ecological Havoc

A call for action was made recently concerning the regulation of the transport of various animal and plant life in the ballast holds of cargo ships. According to a U.S. Coast Guard/Sea Grant study entitled, *The Role of Shipping in the Introduction of Nonindigenous Aquatic Organisms into the Coastal Waters of the United States and an Analysis of Control Options*, every hour plankton and other living organisms pour into U.S. ports from the two million gallons of water a ship carries for stability. This discharge of foreign ballast water into new environments has caused serious environmental damage through the introduction of exotic species.

According to a *New York Times* article written July 23, 1996, the National Research Council issued a report calling on the United States to take the lead in implementing better international guidelines on ballast water

exchange. In that article, Adm. Joel D. Sipes, the chairman of the Committee on Ships' Ballast Operations said, "We need cooperation from other countries. Ships have long been carrying ballast water from places who do not regulate this water."

In the report, the committee urged the Coast Guard to develop a National plan recommending that all vessels be required to construct plans for discharging ballast water, and for records to be kept both by the respective vessels and the International Maritime Organization, a United Nations agency that oversees shipping worldwide.

Regionally, two initiatives on ballast water are in place, the first dealing with the Chesapeake Bay, and the second with the Great Lakes, where an infestation of nonindigenous zebra mussels have reportedly clogged the intake pipes of power plants and water

systems.

The committee suggested two options for eradicating the ballast water problem. One involved changing the water at sea, where most freshwater, estuarine and coastal organisms can not survive. The only problem being, when at sea, changing the ballast water reportedly puts a ship's stability at risk. So, the second suggestion given by the committee encouraged more research on technologies like filtration methods. The report said, "The filtering of ballast water as it is loaded onto a ship would prevent the intake of unwanted organisms and avoid the need to change ballast during a voyage."

*The Times* article stated the ballast report was presented at a meeting of the International Maritime Organization. Its ballast working group is taking the report's recommendations into consideration.

## Fishermen Preventing Vessel Related Pollution: A National Effort

An interesting, fact filled brochure relating ways to prevent vessel related pollution will be distributed to many of the nation's commercial fishermen and marine boaters over the next twelve months. The Atlantic, Pacific, and Gulf States Marine Fisheries Commissions joined forces through their Fishermen Involved in Saving Habitat (F.I.S.H.) Education Program to implement this effort, and educate fishermen and boaters about ways to avoid vessel related pollution.

By the year 2010, more than 53% of the nation's population is expected to live within 50 miles of the coast. Although the impacts from recreational and commercial fishing vessels may seem small on an individual basis; when multiplied by the number of boats in a busy marina and the number of boating days per year, big water quality problems may result.

The brochure reviews a number of ways vessel related pollution can be reduced or eliminated, including using oil absorbent materials in vessel bilges and for cleanup of petroleum product spills; refraining from overfilling fuel

tanks; using pumpout facilities rather than discharging even treated sewage; and completing boat repairs (especially sanding and painting) in dry-dock. These efforts are easy to implement on an individual basis, and will add up to improved coastal water quality.

The brochure will be distributed along with commercial fishing licenses by many of the state marine fisheries agencies along the three coasts. Atlantic coast participants include Maine, New Hampshire, New York, Connecticut, North Carolina, South Carolina, and Florida. A number of state coastal zone management agencies are also involved, and will be distributing brochures through their programs. In some states, recreational fishermen and boaters will be targeted as well. Brochure development was funded by the Environmental Protection Agency.

To receive individual copies of the brochure, contact Gigi Garson at 202/289-6400.

### PROTECTING FISH HABITAT

A GUIDE FOR FISHERMEN AND BOATERS



## Resources

***Recent Trends in Coastal Environmental Quality: Results from the Mussel Watch Project*** was published in June 1995 by the NOAA/National Ocean Service Status and Trends Program, summarizing eight years of research on the spatial distributions and temporal trends of chemical contamination, using soft tissues of mussels and oysters from 300 estuarine sites nationwide. Copies of this report are available from NOAA at N/ORCA2, 1305 East-West Highway SSMC4, Silver Spring, Maryland, 20910-3281.

***The Health of the Gulf of Maine Ecosystem: Cumulative Impacts of Multiple Stressors*** deals with the cumulative nature of environmental effects and the net effect on living resources. This report was the result of a September 1995 workshop at Dartmouth College and is available by calling Eugenia Braasch at (603) 646-3480, or by e-mail at braasch@dartmouth.edu.

***Fish Passage Technologies: Protection at Hydropower Facilities*** published by the Office of Technology Assessment reflects the findings of a special advisory panel which offers recommendations for policy improvements related to research, coordination, and technology. Copies are available for \$12.00 from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA, 15250-7954.

***Land-Use Effects on Water Quality in Mid-Atlantic Coastal Waters and Estuaries — Management and Research Needs*** is a December 1994 workshop report which summarizes linkages between land practices and aquatic health. The report focuses on the Cape May, New Jersey to the Albemarle-Pamlico Sound coastline, and assesses current scientific understanding of the impact of land use and population growth on nearshore environments, and reaches consensus on information needs. This publication is available from the Maryland Sea Grant College at (301) 405-6371.

***Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation's Economy*** examines the value of clean water in five commercial sectors: fishing, tourism/recreation, real estate, manufacturing and agriculture. This EPA report on the economic value of clean water is available by calling (202) 260-7786, or you can access the report on the World Wide Web at [Http://www.epa.gov/ow](http://www.epa.gov/ow).

***MarinaNet Project*** is a new network created by the National Sea Grant College Program providing nationwide links between marinas, universities, regulatory agencies and marine-related organizations. This network will provide marinas with ideas for management, research information from academia and updates on regulations. For more information, contact West McAdams at (803) 722-5940.



***We All Live Downstream*** is a new half-hour educational video released by the Oregon State University Extension Service examining nonpoint source pollution as a new threat to America's drinking water supply. Carried by rain and irrigation that runs off farms, forests and city streets, its subject matter has implications for most every watershed in the country. The video (VTP 021) costs \$30.00 (including shipping) and can be ordered by mail from: Publications Order, Agricultural Communications, Oregon State University, A422 Administrative Services Building, Corvallis, OR, 97331-2119.

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## PAHs in the Marine Environment

Polynuclear or Polycyclic Aromatic Hydrocarbons (PAHs) are a class of petroleum hydrocarbons that are formed during the incomplete burning of coal, oil and gas, garbage, or other substances. PAHs enter coastal ecosystems from sewage and industrial effluents, petroleum spills, creosote, combustion of fossil fuels and forest and brush fires. According to the *Practical Handbook of Marine Science* (Kennish, 1992) PAH compounds are among the most widespread chemical contaminants in estuarine and nearshore environments.

There are more than 100 different compounds classified as PAHs, including many with a wide range of toxicity and persistence in the environment. Because some PAHs are potentially carcinogenic, mutagenic, or teratogenic to aquatic organisms, PAHs have been identified as compounds of increasing environmental concern and have been the focus of numerous studies in estuaries and adjacent coastal regions. These studies have documented the fact that PAHs appear in most urbanized coastal areas of the world, and that PAHs accumulate in sediments and biota that are unable to efficiently eliminate them.

According to the review of PAHs in the *Practical Handbook of Marine Science*, the ability of aquatic organisms to take up PAHs from contaminated environments is well chronicled. Coupled with this uptake is the potential for trophic transfer within aquatic food chains. For example, PAHs have been implicated in impacts on shellfish and finfish in Chesapeake Bay, Oregon Bay and Puget Sound. The

complexities associated with mechanisms of bioavailability, uptake, and elimination which determine the extent of accumulation and retention of PAHs in invertebrates and fish in marine ecosystems are reviewed in detail in *Bioaccumulation of Polycyclic Aromatic Hydrocarbons by marine Organisms*.

### References and relevant literature

Breteler, R. (ed.) 1984. Chemical Pollution of the Hudson-Raritan Estuary. NOAA Technical Memorandum NOS OMA 7. National Oceanic and Atmospheric Administration, National Ocean Service. Rockville, MD.

Kennish, M. 1992. Ecology of Estuaries: Anthropogenic Effects. CRC Press. Boca Raton, FL.

Meador, J., J. Stein, W. Reichert, and U. Varanasi. 1995. Bioaccumulation of Polycyclic Aromatic Hydrocarbons by Marine Organisms. Review of Environmental Contamination and Toxicology, Vol 143. Springer-Verlag, Inc. New York, NY.

Pearce, J., C. Berman Jr., and M. Rosen (eds.) 1985. Annual NEMP Report on the Health of the Northeast Coastal Water, 1982. NOAA Technical Memorandum NMFS-F/NEC-35. National Oceanic and Atmospheric Administration, National Marine Fisheries Service Northeast Fisheries Center. Woods Hole, MA.

*Adapted from PAHs in the Marine Environment, by John Tiedemann, The Coast Alliance Newsletter on Contaminated Sediments, January 1997.*

## Clean Water Network Organizes '97 Campaign

Nearly 200 representatives of the 900 Clean Water Network member organizations met from December 7-9, 1996 in Washington, DC to develop a 1997 agenda, in an effort to make America's waters safe for fishing, drinking and swimming.

The Clean Water Act, passed in 1972, promised water safe for fishing, drinking and swimming and free from dumping of toxic pollutants by 1985. Twenty-five years after enactment of the law, one-third of our Nation's waterways remain polluted and unfit for human activity.

Over the three-day period, the Network discussed inadequacies in the current implementation of the federal water protection regulatory program. Reoccurring themes included the Government's inability to enforce the Clean Water Act, to stop the loss of wetlands, and to permit corporate loopholes thwarting water protection goals.

The Network is seeking to work with Government entities to ensure clean water for healthy families, to protect habitat and wetlands from source to sea, and to inform communities about toxic

dumping and its affects on neighborhoods. Specifically, the Network is working for zero discharge of pollutants and polluted runoff, safe water and seafood to consume throughout the country, coastal habitat restoration and protection, and communities right to know provisions about environmental harms.

The Network will be developing a comprehensive proposal based on this agenda in early 1997. For further information, contact Kathy Nemsick at 202/289-2395.

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## South Carolina Wetlands Mitigation Bank

The Sandy Island Mitigation Bank was established to offset the environmental impact of highway construction projects in South Carolina. Sandy Island comprises 9,000 acres of uplands and wetlands considered to be outstanding in value to fish and wildlife. This land was faced with the imminent threat of development, but will now be maintained in its natural state in perpetuity.

The mitigation bank was formed through an agreement between the National Marine Fisheries Service, South Carolina Departments of Transportation, Natural Resources, and Health and Environmental Control, the Federal Highway Administration, US Army Corps of Engineers, Environmental Protection Agency, and the US Fish and Wildlife Service. The agreement resolved complex issues, and is considered to be an exceptional partnership between construction, regula-

tory, review and private sector interests. The Federal Highway Administration plans to use the agreement as a basis for fostering better interagency relations in other geographic regions.

The Sandy Island Mitigation Bank is valued at \$14 million. An additional 8,000 acres of forested wetlands in the Pee Dee River drainage basin was also acquired as part of the agreement. The land acquisitions which are a part of the banking agreement are ecologically sensitive and important areas. The agreement will provide for protection of these areas, as well as needed highway projects. Impacting activities which will be allowed as a result of the agreement include road construction through marginal value wetlands. *For further information, contact David Rackley, NMFS, 803/762-8574.*

## Marine Fish Conservation Network Closes its Doors

On October 4, 1996, the Marine Fish Conservation Network officially closed its doors, having accomplished its goal of substantially improving federal fisheries law. The Network represented more than 100 diverse associations, including groups representing conservation, recreational and commercial fishing, diving, and scientific interests. It focused on lobbying Congress and

educating the public about the need for changes to federal fisheries management under the Magnuson Act, known as the Magnuson-Stevens Act or Sustainable Fisheries Act since its October reauthorization.

One of the key provisions supported by the Network addressed the strengthening of marine fish habitat protection.

Their handiwork is evident in the new habitat mandates addressed in the lead article in this issue of *Habitat Hotline Atlantic*. As the Network closed its doors, it charged its member groups, concerned citizens and others to see that the law is fully implemented to the greatest benefit of all Americans, present and future.

## Port of New York/New Jersey Dredged Material Management Plan Interim Report Available

The Army Corps of Engineers New York District recently released an update to the plan for management of materials dredged from the Port of New York and New Jersey. The update, entitled *Dredged Material Management Plan Interim Report for the Port of New York and New Jersey*, was distributed in late October, 1996.

The purpose of the report is to provide a menu of options for disposing and/or managing dredged material originating from the Port to regional decision makers and the general public. This will provide for the selection of an appropriate combination of options which will improve the economic health of the Port and protect the estuarine and ocean environment.

The options chosen for incorporation in the management system for Port dredging will then receive the necessary detailed study and design to implement each. *For further information on the interim report, contact Jeff Fry, ACOE, 212/264-1275.*

A Comprehensive Environmental Impact Statement is under preparation for the Dredged Materials Management Plan. This document will provide the public with an opportunity to learn about and comment on dredged material disposal alternatives. Public meetings will be held in conjunction with the release of this document. *For further information, contact Robert Kurtz, ACOE New York District, Jacob K. Javits Federal Building, New York, NY 10278-0090.*

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## **ASMFC Habitat Committee Endorses Protection of Submerged Aquatic Vegetation: *Policy Statement under Development***

During the 55th Annual Meeting of the Atlantic States Marine Fisheries Commission, the Habitat Committee endorsed the preparation of a Policy Statement to promote the conservation of submerged aquatic vegetation (SAV) ecosystems. Based on a review of the important ecological aspects of SAV and current state management policies, the Committee found that a Commission endorsed policy, which could be applied in all member states, could help conserve this vital fisheries habitat.

The review presented to the Committee consisted of four papers, including a summary of the ecological value of SAVs; the relationship of SAVs to species managed by ASMFC; impacts to SAVs from human activities; and state regulation and management of SAVs. Seagrasses are a vital component of the habitat requirements for many economically and ecologically important species, and comprise one of the most productive ecosystems in the world. Submerged beds of aquatic vegetation provide chemical cycling, physical stabilization, food, and shelter to valuable nearshore aquatic communities. Most importantly to ASMFC, these beds provide direct ecological value to state managed species such as striped bass, shad and river herring, American lobster, weakfish, croaker, red drum and spotted seatrout.

The protection afforded to SAV ecosystems by state regulations were found to vary substantially up and down the coast, and most states reported recent declines in SAV abundance. Maryland, Connecticut, and New Hampshire rated themselves as being the most effective at protecting SAVs, while Delaware and Massachusetts felt they were being the least effective. Fishing gear restrictions in order to protect SAVs have been imposed in the states of Massachusetts, New Jersey, Maryland, and North Carolina.

The policy statement will probably be similar to statements previously developed and adopted by the South Atlantic Fishery Management Council and Chesapeake Bay Program. The statement will be used by state and other agencies to support SAV protection through the development of state regulations, policies, or other applications. Other actions for ASMFC endorsement are also being investigated, including the development of a synthesis of water quality standards for SAVs, and SAV mapping protocol.

The papers presented to the Habitat Committee will be bound in a special report published by ASMFC, and will be available in early 1997. The policy statement is expected to be adopted in mid-1997. For further information, please contact Dianne Stephan, 202/289-6400.

## **Draft Management Plan for NY/NJ Mud Dump Site Available**

A draft Site Management and Monitoring Plan for the NY/NJ Mud Dump Site was released jointly in November by the US Army Corps of Engineers and Environmental Protection Agency. The development of such a plan is required for all Ocean Disposal Sites. The plan includes a baseline assessment of conditions at the site; a program for monitoring the site; a description of management conditions/ practices for implementation; a description of the

quantity and quality of the material to be disposed of, including contaminants; and the anticipated uses of the Mud Dump Site.

The Mud Dump Site has been designated by EPA for closure on September 1, 1997 (see *Habitat Hotline Atlantic No. 15*). Once this occurs, the site and surrounding disposal sites will be designated as the Historic Area Remediation Site. Development of a

revised management plan, along with a Supplemental Environmental Impact Statement (SEIS) and Proposed Rule will then be required. These documents are expected to be available in January 1997.

For further information, contact Douglas Pabst, EPA, 212/637-3797 or Brian May, ACOE, 212/264-1853.

## **Seminar: Using Recycled Plastic Lumber in Waterfront Construction: March 25, 1997**

Recycled plastic has been suggested as an alternative to wood for use in waterfront construction. The benefits of recycled plastic are that it lasts longer than wood, does not leach chemicals, and costs less than hardwoods. A seminar on this subject will be held March 25, 1997. The seminar is sponsored by Rainforest Relief,

an organization concerned about the increasing use of tropical rainforest grown hardwoods in waterfront construction.

Rainforest Relief is working closely with Rutgers Civil and Environmental Engineering Department, considered to be the nation's leading independent research group on recycled plastic lumber.

The seminar is aimed at town officials, engineers, and marine construction contractors. An exact location for the seminar has not been chosen; however, it will take place near New Jersey's Raritan Estuary. For further information, contact Rainforest Relief at 718/832-6775 or email relief@igc.apc.org.

*Best Wishes  
for a  
Prosperous 1997!*

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