



# Atlantic States Marine Fisheries Commission

## Annotated Bibliography of Habitat Program Documents (June 2008)

### *ASMFC Habitat Program Five-Year Strategic and Management Plan 2007-2011*

- Publication Date: February 1, 2007
- Summary: The ASMFC Interstate Fishery Management Program Policy Board approved this plan on February 1, 2007. This Strategic Plan will guide the ASMFC Habitat Committee's activities from 2007 through 2011. It outlines goals and strategies for current and future activities of the ASMFC Habitat Program that will propel the Commission forward as an authority in the field of marine habitat management. The document also discusses the mission and vision of the Habitat Program. The five goals are: (1) effectively protect, restore, enhance, and research Atlantic coastal fish habitat through fisheries policy and management programs; (2) build partnership opportunities among agency fishery managers and non-fishery resource management agencies, researchers, and like-minded non-governmental organizations to promote the use of habitat information in decision-making; (3) educate ASMFC Commissioners, fishermen, and the general public about the importance of protecting, restoring, and enhancing habitat to achieve successful fisheries management; (4) implement measures of effectiveness for Habitat Program activities to focus efforts and monitor progress of the Habitat Program; and (5) identify additional sources of funding for Habitat Program activities.

### *Atlantic Coastal Submerged Aquatic Vegetation: A Review of its Ecological Role, Anthropogenic Impacts, State Regulation, and Value to Atlantic Coastal Fish Stocks (ASMFC Habitat Management Series #1)*

- Editors: C. Dianne Stephan (ASMFC) and Thomas E. Bigford (National Marine Fisheries Service)
- Publication Date: April 1997
- Summary: This document was compiled by the Submerged Aquatic Vegetation (SAV) Subcommittee of the ASMFC Habitat Committee. It presents a summary of the work of the SAV Subcommittee, and presents four important technical papers which review: (1) the ecological value of SAV; (2) SAV regulation by the Atlantic coast states; (3) anthropogenic impacts to SAV; and (4) the importance of SAV to fish stocks managed by ASMFC. The document also outlines seven recommendations, including: (1) develop a model state policy for SAV; (2) work with state and federal water quality agencies to develop water quality criteria to ensure SAV survival and health; (3) develop a standard protocol for mapping and monitoring; (4) collect information on natural variability so states and the Commission can determine the effects of human activities; (5) offer assistance to the Commission's species boards to apply the findings of this report in the context of each FMP and related research and management initiatives; (6) prepare a Commission policy or resolution on SAV, communicating the importance of SAV to

ecosystem health and fishery productivity; and (7) prepare a special ASMFC report based on the SAV Subcommittee's work and publish for general distribution.

*Management of Atlantic Coastal Marine Fish Habitat: Proceedings of a Workshop for Habitat Managers* (ASMFC Habitat Management Series #2)

- Editors: C. Dianne Stephan (ASMFC) and Kimberly Beidler (JACA Corporation)
- Publication Date: April 1997
- Summary: This document is a collection of papers presented at a workshop entitled, *Management of Atlantic Coastal Marine Fish Habitat: A Workshop for Habitat Managers*, held June 3-6, 1996, in Philadelphia, Pennsylvania. The workshop gave state and federal fish and habitat managers an opportunity to expand their tool chest for the protection of fish habitat. Formal presentations covered topics from identifying the links between habitat and fisheries impacts to a review of existing/creative tools for habitat management. The three primary areas of focus covered by the workshop included: (1) a review of innovative management tools for fish habitat conservation; (2) the scientific research necessary for management decision-making and research application; and (3) communication and coordination. A number of papers outlining the results of applicable recent scientific research were presented, and included: (1) the effects of pollution on fish behavior and reproduction; (2) the effects of the application of agricultural best management practices on estuarine fated polluted runoff; and (3) the effects of pier shading on fish populations, among others.

*Submerged Aquatic Vegetation Policy* (ASMFC Habitat Management Series #3)

- Authors: C. Dianne Stephan (ASMFC), William J. Goldsborough (Chesapeake Bay Foundation), John H. Dunnigan (ASMFC), and Paul A. Sandifer (South Carolina Department of Natural Resources)
- Publication Date: June 1997
- Summary: Based on literature reviews and policy research conducted under the auspices of the ASMFC Habitat Committee, submerged aquatic vegetation (SAV) was found to be significantly important to many ASMFC-managed species, and afforded different degrees of protection up and down the coast. This policy was developed to communicate the need for conservation of coastal SAV resources, and highlight state and Commission-based activities for implementation of a coastal SAV conservation and enhancement program. The policy was adopted at the 1997 Spring Meeting of the Atlantic States Marine Fisheries Commission, on May 23, 1997. The in-depth background information upon which this policy is based is included in the publication *Atlantic Coastal Submerged Aquatic Vegetation: a Review of its Ecological Role, Anthropogenic Impacts, State Regulation, and Value to Atlantic Coastal Fisheries*. This policy is modeled after a similar policy prepared by the Chesapeake Bay Program, which is also included in the aforementioned document.

*Evaluating Fishing Gear Impacts to Submerged Aquatic Vegetation and Determining Mitigation Strategies* (ASMFC Habitat Management Series #5)

- Authors: C. Dianne Stephan (ASMFC), Robin L. Peuser (ASMFC), and Mark S. Fonseca (National Ocean Service)
- Publication Date: July 2000
- Summary: The *Submerged Aquatic Vegetation (SAV) Policy* directed the Commission to develop technical guidelines and standards to objectively determine fishing gear impacts to SAV, and develop standard mitigation strategies. The Commission appointed a Work Group to draft these guidelines and strategies. Commission staff, with assistance from the Work Group and additional technical experts, prepared this report, which was approved by the ASMFC Management and Science Committee and Habitat Committee on November 2, 1999, and adopted by the Interstate Fisheries Management Program Policy Board on February 9, 2000. Certain specific characteristics of SAV are reviewed in the document, since these characteristics may influence SAV susceptibility to damage or loss from fishing gear impacts. The characteristics of concern include: (1) light requirements; (2) asexual reproductive structures (also called growing tips or meristems); (3) reproductive structures (flowers and seeds); and (4) ability to recover from disturbance or injury. An additional factor that can affect SAV susceptibility to physical damage is the substrate type in which the SAV is found. The document also discusses above and below-ground impacts of fishing gear on SAV, and mitigation strategies.

*ASMFC Habitat Managers Database* (ASMFC Habitat Management Series #6)

- Compiled by: C. Dianne Stephan (ASMFC), Karen Greene (Fisheries Consultant), and Robin L. Peuser (ASMFC)
- Publication Date: December 2000
- Summary: This guide provides resource management contacts for agencies involved in habitat management or alteration. A brief description of these state, federal, and local agencies is also provided. This guide consists of three sections for each state. The first section briefly summarizes duties of habitat resource agencies or other agencies that could impact fish habitat within each state. The second section is the database of habitat managers, which lists contact information for the agencies identified in the summary section, and representatives of applicable government agencies for each state (not up-to-date). The third section lists environmental organizations within each state. Finally, an appendix includes maps that identify the coastal designations used in this document.

*Beach Nourishment: A Review of the Biological and Physical Impacts* (ASMFC Habitat Management Series #7)

- Author: Karen Greene (ASMFC)
- Publication Date: November 2002
- Summary: This paper aims to review the current level of knowledge regarding impacts of beach nourishment (as of 2002), and to identify areas where information is lacking. This paper outlines the basic issues surrounding beach nourishment: (1) coastal erosion and possible management approaches; (2) how beach nourishment is carried out; (3) federal and state activities; (4) the environmental effects at the mine site and the target beach; (5) research needs; and (6) recommendations for improving monitoring studies. This paper also reviews major studies that have concluded insignificant impacts of beach

nourishment, with a brief discussion of the findings. Those beach nourishment studies that have found the effects to be more serious, or non-beach nourishment studies and laboratory experiments whose results suggest potential impacts, are discussed in greater detail. This information provides states with a basic understanding of what beach nourishment is, the level of each state's involvement (as of 2002), and how these activities are affecting the marine and beach environment. Finally, this paper serves to educate the general public and provide sources that can be further examined to gain an in-depth knowledge of beach nourishment.

*The Importance of Habitat Created by Molluscan Shellfish to Managed Species along the Atlantic Coast of the United States (ASMFC Habitat Management Series #8)*

- Authors: Loren D. Coen, Ph.D. (South Carolina Department of Natural Resources), and Raymond E. Grizzle, Ph.D. (University of New Hampshire)
- Contributors: Jennifer L. Lowery (West Virginia University), and Kennedy T. Paynter, Jr., Ph.D. (University of Maryland)
- Editors: Jessie Thomas (ASMFC) and Julie Nygard (ASMFC)
- Publication Date: May 2007
- Summary: This document outlines the ecological services provided by various species of shellfish found along the Atlantic coast, including: (1) reef-forming species; (2) aggregations of living shellfish; (3) dead shell accumulations; and (4) cultured ground. It also discusses the four characteristics of shellfish habitat—hard substrate, vertical structure, food, and water quality regulation—that result in a significant enhancement of overall habitat value for many species of Atlantic shelf, coastal, and estuarine waters. The known status of important habitat-creating shellfish species is covered, in addition to the relation of these habitats to ASMFC-managed species. Finally, management issues and research needs are discussed, including a list of recommended future research.

*Guidelines for Marine Artificial Reef Materials, 2nd Edition*

- Compiled by: The Artificial Reef Subcommittees of the Atlantic and Gulf States Marine Fisheries Commissions
- Project Coordinators: Ronald R. Lukens and Carrie Selberg
- Publication Date: January 2004
- Summary: The purpose of this document is to provide a comprehensive discussion regarding a variety of materials that have been used in the development of marine and estuarine artificial reefs in the United States. This document is a guideline only, and is not, by its nature, regulatory. The hope is that agencies, organizations, and individuals will find the document useful in the decision-making process regarding the types of materials that are likely to be suitable for use as artificial reef material, including recommendations for optimum application. The materials discussed in this report do not represent the full range of materials that could be used as artificial reef material, but rather represent the materials that have been used in the development of artificial reefs in marine and estuarine habitats in the United States. This document is not intended to promote, endorse, or encourage the use of any material over other materials, but to provide background and experiences with the use of selected materials, a listing of benefits and drawbacks associated with using selected materials, and a listing of considerations if the materials are selected for use as artificial reef material. This

document is a factual reference for those who are tasked with the responsibility for managing, developing, or regulating artificial reef programs and must consider conservation, fisheries management, environmental protection, recreational, and economic objectives.

#### *Coastal Artificial Reef Planning Guide*

- Prepared by: The Joint Artificial Reef Technical Committee of the Atlantic and Gulf States Marine Fisheries Commissions in coordination with the Pacific States Marine Fisheries Commission
- Publication Date: December 1998
- Summary: This document follows the format of the 1985 National Artificial Reef Plan, incorporating changes to original text in key areas. The Atlantic and Gulf States Marine Fisheries Commissions coordinated development of these changes over a three-year period through open debate in public fora among state manmade reef program developers, involved federal agencies, and many affected constituencies. As extensive as such debates may have been, all participating entities realize that any changes to the Plan which may result from this work must pursue another phase of reviews under the purview of the National Marine Fisheries Service as the responsible agent of the Secretary of Commerce. Therefore this is a stand-alone document and represents the broad policies and recommendations of the interstate marine fisheries commissions regarding marine manmade reef development in state and federal waters. This document formed the basis for the 2007 National Artificial Reef Plan revision.

#### *Guidance Relative to Development of Responsible Aquaculture Activities in Atlantic Coast States (ASMFC Special Report No. 76)*

- Compiled by: ASMFC Management and Science Committee/Habitat Committee Aquaculture Subcommittee
- Publication Date: November 2002
- Summary: The Commission has a desire to ensure that aquaculture development is conducted in concert with maximizing the benefits from natural harvest fisheries and protection of their habitat. This document offers useful guidance for states in dealing with these topics in a way that will facilitate development of responsible aquaculture. References and examples are provided for many of the topics in order to assist those states that choose to more fully address aquaculture development within their jurisdictions. The examples provided are not a comprehensive list of examples for a topic, but are meant to give the reader a starting point to find more information. Because of the variability of species, culture systems, and ecosystems along the Atlantic coast, there is no single solution to any given topic. Inclusion of specific references, therefore, does not imply endorsement by the Commission.

#### *Healthy Fisheries Need Healthy Habitats (Folder)*

- Publication Date: 2006
- Summary: This folder contains habitat information for many of the species managed by ASMFC, including habitats the species use, Commission habitat areas of particular concern, threats to these areas, and recommendations and research needs from the ASMFC fishery management plans. It is intended to provide habitat managers and others

interested in habitat conservation with a quick guide to fishery-related habitat issues along the Atlantic coast, aiding them in their efforts to minimize impacts and restore these important areas.

*Submerged Aquatic Vegetation: Why is it so important and how can fishermen and boaters help protect it?* (Brochure)

- Publication Date: 2002
- Sponsors: ASMFC, NOAA, and Sport Fish Restoration Grant
- Summary: This brochure was created as an educational material. It highlights the importance of submerged aquatic vegetation (SAV) to fish, and discusses threats to SAV (including fishing gear and boating practices). It also notes what people can do to protect SAV.

*Protecting Fish Habitat: A Guide for Fishermen and Boaters* (Brochure)

- Publication Date: 1998
- Sponsors: ASMFC, GSMFC, PSMFC, NOAA, and EPA
- Summary: This brochure was created as an educational material. It briefly discusses the importance of protecting fish habitat, and things that fishermen and boaters can do to help minimize their impact on fish habitat.

*Habitat Hotline Atlantic* (Newsletter)

- Editor: Jessie Thomas (ASMFC)
- Summary: This is a quarterly newsletter compiled by the ASMFC Habitat Coordinator. It highlights current issues for concern for aquatic habitat along the Atlantic coast. Some recent topics include: economics of estuaries, global warming, the Atlantic Coastal Fish Habitat Partnership, artificial reefs, marine debris, alternative energy, acid mining, and tracking coastal water quality.

*Fishery Management Plan Habitat Sections*

- Compiled by: Various species Technical Committees in coordination with the Habitat Committee
- Summary: Each Commission fishery management plan should include a habitat section that details the known habitat use patterns of the species. The plans should include: (1) description of habitat; (2) identification and distribution of habitat and Habitat Areas of Particular Concern; (3) present condition of habitats and Habitat Areas of Particular Concern; (4) ecosystem considerations; (5) habitat monitoring program information; and (6) habitat management recommendations and research needs. Guidance for developing these sections may be found in the draft *Habitat Program Operational Procedures Manual* (not yet approved).

*Water Quality Symposium Recommendations*

- Workshop Date: February 21, 2006
- Summary: ASMFC Commissioners were invited to participate in a symposium focused on water quality. Workshop participants made these recommendations: (1) build connections between fisheries and habitat agencies; (2) support continued funding of the EPA's National Coastal Assessment Program; (3) insist on a state role in the

implementation of Ocean Commission recommendations; and (4) expand emphasis on habitat needs of Commission species.

*Habitat Committee and Management & Science Committee Joint Working Seminar:  
The Impacts of LNG and Alternative Energy Development on Fishery Resources*

- Workshop Date: October 24, 2006
- Workshop Location: Atlantic Beach, North Carolina
- Summary: The ASMFC Habitat Committee and Management and Science Committee gathered together with the goal of determining the most effective role for the Commission to assist the states in protecting fishery resources and fish habitat throughout the energy policy, development, permitting, and/or monitoring process in state coastal waters. The recommendations of the participants were summarized into four general areas of concern: (1) incorporate energy comments into the ASMFC permit review policy; (2) appoint an ASMFC staff member to serve as a point of contact for energy related issues; (3) develop an alternative energy source document under the guidance of the Habitat and Management & Science Committees; and (4) advocate/lobby for alternative energy issues.

*ASMFC Workshop on Fish Passage Issues Impacting Atlantic Coast States*

- Workshop Date: April 3 & 4, 2008
- Workshop Location: Jacksonville, Florida
- Summary: This workshop was designed to educate and inform ASMFC Commissioners and Technical Committee members about fish passage issues along the Atlantic coast. The goals of the workshop were: (1) to initiate development of an ASMFC fish passage protocol that can be applied by the states when addressing future passage issues; (2) to provide a summary of current fish passage technologies and techniques; (3) to provide a forum to discuss recent experiences with dam re-licensing and potential future ASMFC/state involvement; and (4) to discuss species-specific fish passage concerns and solutions. Recommendations were made on policies and approaches to fish passage, inclusion of fish passage concerns in fishery management plans, Habitat Committee and Technical Committee involvement in fish passage, public relations, and workshops and training sessions.