

**A GIS Database of Existing Coastal and Marine  
Protected Areas, Conservation Zones, and Restricted  
Fishing Areas in the Gulf of Maine**

**August 1998**

**By:**

**Carol Baumann, Center for Marine Conservation  
Sam Brody, Gulf of Maine Marine Protected Areas Project  
Derek Fenton, Department of Fisheries and Oceans Canada  
Betsy Nicholson, Woods Hole Oceanographic Institution**

## Table of Contents

<b>ACKNOWLEDGMENTS</b> .....	<b>3</b>
<b>I. INTRODUCTION</b> .....	<b>4</b>
<b>II. DEFINITION AND BACKGROUND ON MARINE AND COASTAL PROTECTED AREAS, CONSERVATION ZONES, AND RESTRICTED FISHING AREAS</b> .....	<b>5</b>
<b>III. METHODS</b> .....	<b>6</b>
STUDY AREA .....	6
DATA COLLECTION.....	6
DATA LIMITATIONS .....	6
PROCESSING GIS DATA .....	7
DATA ATTRIBUTES .....	7
DATA LAYERS .....	10
<b>IV. CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>11</b>
<b>APPENDIX A: GULF OF MAINE GIS DATABASE CONTACT LIST</b> .....	<b>12</b>

## **Acknowledgments**

The GIS database and this report was produced as part of the Gulf of Maine Marine Protected Areas Project and was made possible by the following sponsors: The Gulf of Maine Council on the Marine Environment, the U.S. Environmental Protection Agency, the Center for Marine Conservation, the Henry Weisenfeld Family Foundation, the Marine Policy Center of the Woods Hole Oceanographic Institution, the New England Aquarium, and the Center for Environmental Enterprise.

The authors would also like to thank Jeannette Bairdi for her assistance in research and data collection. Special thanks goes to Mary Schumacher for her editorial assistance.

## I. Introduction

There are many different types of protected and regulated areas in the Gulf of Maine. While many of these areas share conservation goals and seek to protect the same types of marine resources, there is no centralized map or database providing a comprehensive overview of these areas. Instead, information is scattered and unorganized. As part of the Gulf of Maine Marine Protected Areas (MPAs) Project, a GIS database of existing coastal and marine protected areas, conservation zones, and restricted fishing areas in the Gulf of Maine has been produced. This database complements other data layers in progress, such as fish assemblages and surficial geology. It will act as a powerful analytical tool that will assist a range of users in evaluating the role of existing protected areas and determining the location of future sites. Database attributes for each site include name, type of designation, jurisdiction, location, size, year established, legislation, ownership, specific regulations, and IUCN protection category. With this information, users can form a better understanding of the range and scope of regulated areas in the Gulf of Maine. The database is constructed so that the user can select parameters, conduct analyses, and form conclusions according to his or her own specific needs. The GIS data will be available on the internet and can also be viewed on a series of hard copy maps. This project was completed in partnership with the Center for Marine Conservation, the Department of Fisheries and Oceans Canada, the New England Aquarium, and the Marine Policy Center of the Woods Hole Oceanographic Institution.

## **II. Definition and Background on Marine and Coastal Protected Areas, Conservation Zones, and Restricted Fishing Areas**

As defined by the World Conservation Union (IUCN), a marine protected area is “any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.” Due to the broad scope of this definition and the diversity of protection levels within the study area, it was decided that information would be collected for a wide range of areas, including coastal and marine protected areas, conservation zones, and restricted fishing areas. Data were gathered and mapped for state/provincial parks, national parks, offshore fishing closures, wildlife management areas, national wildlife areas, and other regulations that seek to protect a discrete area in the marine environment. The purpose of the project was not to narrow the definition of a “marine protected area,” but to provide a broad range of related information to assist users in understanding and analyzing the many different types of areas protected by governments in the Gulf of Maine.

The following types of regulations and site objectives were not included in the database:

- Areas closed or regulated for human health purposes
- Quota management tools for fishing
- Emergency measures
- Fishing gear conflict regulations
- Fishing regulated mesh areas
- Broad regulations that do not apply to a specific coastal/marine area
- Regulations that are not designed to protect species, habitats, or parts of the marine ecosystem.

### **III. Methods**

#### **Study Area**

The study area was expanded beyond the Gulf of Maine proper to include important offshore fishing closures on George's Bank. Water portions extend from Cape Cod north through the Bay of Fundy and east to include George's Bank, Brown's Bank and the western Peninsula of Nova Scotia up to Halifax. The study area also includes land which lies adjacent to or touches salt water. Jurisdictions which lie in the study area include Massachusetts, New Hampshire, Maine, New Brunswick, Nova Scotia, U.S. federal offshore areas, and Canadian offshore areas (Figure 1).

#### **Data Collection**

The GIS database was created by collecting existing data from various sources around the Gulf of Maine, as no comprehensive database existed prior to the project. Data were organized according to marine components, such as fishery regulations, sanctuaries and coastal lands (areas touching the coast), including, for example national/ state parks and wildlife refuges. Due to the scope of the project, data collection was limited to primarily federal and state/provincial information. Only some Canadian non-governmental sites were included, with limited information as to attributes. Local and private sites were not included, but can easily be added at later stages when time and resources are available. GIS information was collected in various formats from government organizations responsible for managing particular designations. Identifying data sources and obtaining relevant information was one of the project's greatest challenges.

#### **Data Limitations**

Because there were so many different sources of GIS data in the Gulf of Maine, information on protected areas was fragmented and at times inconsistent. In some instances, GIS information was simply not yet available. For example, the state of Massachusetts maintains a comprehensive state-wide GIS system, while much of the information for New Hampshire is still in the process of being converted to GIS format. Inconsistencies in data availability thus made it difficult to produce a complete Gulf of Maine database.

Differences in data formats also posed challenges for the project. Some information was received in point form and some as polygons. For some areas, such as the Western Gulf of Maine Cod Closure, information was not yet in electronic form and had to be mapped using coordinates. Differences in data format may make it difficult to conduct some spatial analyses and compare different types of sites.

Because each data source contained its own set of attributes, much work was done to fill information gaps and make certain each site had a standard information set. Specific

information, such as site regulations, year established, and legislation responsible for designation was, at times, extremely difficult to obtain. All levels of government, individual sites, and even field personnel had to be contacted to collect the necessary attributes (a complete list of those we contacted is included in the appendix to this report). Categorizing specific regulations for each site was also challenging, as regulations often differ in their scope and objectives. (A brief explanation of each specific regulation category is included in the “Data Attributes” section of this report). In sum, locating and obtaining information about each site was the most time-consuming part of constructing the GIS database.

Finally, the assignment of IUCN categories to protected areas was at times problematic. For many sites, the regulations and actual level of protection did not always correspond to management objectives associated with the type of site (e.g. state park, National Wildlife Refuge). In an effort to be consistent with previous IUCN category designations, we have relied on the following literature as a guide:

IUCN. 1994. *Guidelines for Protected Areas Management Categories*. Commission on National Parks and Protected Areas and the World Conservation Monitoring Centre. IUCN, Gland Switzerland.

Salm, Rodney and John Clark. 1984. *Marine and Coastal Protected Areas: A Guide For Planners and Managers*. IUCN, Gland, Switzerland.

Claude Mondor, Francine Mercier, Miles Croom, and Robert Wolotira. 1995. Marine Region 4: Northwest Atlantic. In *A Global Representative System of Marine Protected Areas, Volume 1*. Edited by Graeme Kelleher, Chris Bleakley and Sue Wells. Great Barrier Reef Marine Park Authority, World Bank, IUCN, Washington, DC.

### **Processing GIS Data**

The GIS data was processed using ESRI's ArcView software. The majority of the data was received in ArcInfo export file or ArcView shape file format by various means: email, ftp, CD-ROM or floppy diskette. One exception was the federal offshore areas, which were created from lists of coordinates that defined the boundaries. Processing of the data involved selecting the appropriate protected areas from the data provided by the various agencies, deleting the existing attributes, reprojecting the data into a standard projection, and compiling the data into the themes as listed in this report. The attribute data was initially recorded in a spreadsheet and then exported in a database format and linked to the GIS data.

### **Data Attributes**

In addition to a GIS component, a standardized set of attributes is provided for each site. This information allows the user to better understand the nature of each site and make

comparisons among different types of protected areas. Information in the following categories is available for each protected area recorded in the GIS database:

**Name:** name of site.

**Designation:** indicates the type of designation (e.g. national park, state beach) corresponding to the data layers described on page 9.

**Jurisdiction:** indicates the jurisdiction (state/province or federal) in which the site is located. From this information, the user can search sites by specific state. Some U.S. sites have overlapping jurisdictions (e.g. they are located in both state and federal waters).

**Size:** total size of site in acres.

**Year Established:** the year the protected area was formally established or, in cases of seasonal fishery and gear closures, the year the protected area went into effect.

**Legislation Created:** indicates the law, act or statute by which the site was designated.

**Ownership:** the jurisdiction (state/provincial or federal) that has authority over a specific site. Some sites have more than one level of ownership.

**Managing Organization:** the organization that manages and regulates the specific site.

**Specific Regulations:** a series of regulatory categories were generated and assigned to each site to enable the user to better understand their level of protection and conservation objectives. It is beyond the scope of the project to describe every regulation associated with a site in detail. However, basic categories based on prohibitions were constructed so that the user can determine the types of regulations assigned to a particular site. In many instances, a site has several different types of regulations. The specific regulatory categories are as follows:

1.1 Commercial Fishing Year Round Closure / Restrictions

Coastal /offshore multi-species or species-specific year-round closed or restricted area.

1.2 Commercial Fishing Seasonal Closure / Restrictions

Coastal /offshore multi-species or species-specific seasonal closed or restricted area.

1.3 Gear-Specific Year-Round Closure / Restrictions

Coastal /offshore year-round closed or restricted area whose purpose is to regulate the use of certain gear types.

1.4 Gear-Specific Seasonal Closure / Restrictions

Any coastal /offshore seasonally closed or restricted area whose purpose is to regulate the use of certain gear types.

## 2. Recreational Fishing Closure / Restrictions

Any coastal /offshore area that is closed to recreational fishing or for which there are significant restrictions pertaining to take and size limit of catch. The requirement of a state license is not considered a “recreational fishing restriction.”

## 3. Boating Closure / Restrictions

Any coastal or offshore area that either prohibits boating or imposes restrictions on vessel type, size and access. If boating is not permissible due to natural inaccessibility or the absence of a boat launch, this category was not assigned.

## 4. Development (mining, aquaculture, oil rigs) Closure / Restrictions

Any area that prohibits or restricts on-site development pertaining to activities such as mining, aquaculture, and oil rigging (excluding housing development). The requirement of a license to permit development activities is not considered a “restriction.”

## 5. Disturbance of Wildlife Restrictions: moving, touching, harassing wildlife sites (nesting, feeding, breeding) and/or species

Any area which imposes restrictions prohibiting the disturbance of wildlife and their essential habitat, including areas which comply with federal, state or provincial wildlife protection regulations.

## 6. Hunting Closure / Restrictions

Any area that prohibits hunting of any kind is considered a closed area. Any area that imposes restrictions on the hunting of specific species is considered a restricted area. The requirement of obtaining a hunting license, obeying hunting season restrictions, and observing public proximity safety regulations is not considered a “restriction.” If hunting is not permissible due to spatial restrictions and high public use, this category was not assigned.

## 7. Research Restrictions

Any area which does not permit or restricts on-site research activities, denying permits to interested parties.

## 8. Dumping/ Discharge of Wastes or Waste Water Restrictions

Any area which prohibits the dumping or discharge of waste, including “pack it out” public use areas. Areas equipped with dumping stations from which waste is transferred regularly are not considered “restricted.”

## 9. Human Access Closure / Restrictions

Any area which entirely or partially prohibits human access either for health, safety or wildlife protection reasons. Partially closed areas may include areas with designated “no public access” sections to protect wildlife nesting sites. Public use areas, such as state parks, that are seasonally closed or unstaffed are not considered “closures” under this definition.

**IUCN Protection Category:** the World Conservation Union (IUCN) has developed a classification system for MPAs based on their management objectives. The system is intended to guide protected area managers in designating specific sites. The protection categories are as follows:

- I. Strict Protection (i.e. Strict Nature Reserve/Wilderness Area)
- II. Ecosystem Conservation and Recreation (i.e. National Park)
- III. Conservation of Natural Features (i.e. National Monument)
- IV. Conservation Through Active Management (i.e. Habitat/Species Management Area)
- V. Landscape/Seascape Conservation and Recreation (i.e. Protected Landscape/Seascape)
- VI. Sustainable Use of Natural Ecosystems (i.e. Managed Resource Protected Area)

### **Data Layers**

The GIS data has been organized into themes to assist the user in distinguishing between different types of coastal and marine protected areas, conservation zones, restricted fishing areas, and other regulated areas. Organizing information into different layers reduces map clutter and makes it easier to compare and analyze different sites. Data has been divided into themes based on the following types of designations:

1. National Marine Sanctuaries: Stellwagen Bank
2. Federal Fishing Closures: National Marine Fisheries Service, Department of Fisheries & Oceans
3. National Estuarine Research Reserves
4. National Wildlife Refuges
5. Federal/National Parks
6. Right Whale Critical Habitats
7. Canada Wildlife Service Sites: Migratory Bird Sanctuary, National Wildlife Areas
8. Areas of Critical Environmental Concern
9. State Ocean Sanctuaries
10. State/Provincial Parks: parks, forests, reservations, beaches
11. State Marinas & Piers
12. State Fishing Restrictions: mobile and fixed gear regulations
13. State Complimentary Harbor Porpoise Closures
14. State/Provincial Wildlife Management Areas
15. State Wildlife Sanctuaries
16. State Historic Sites
17. State Public Reserved Lands
18. State Marine Conservation Areas
19. Maine's State Essential Habitat for Endangered Species
20. Canadian Non-governmental Sites

#### IV. Conclusions and Recommendations

The GIS database is the first attempt to organize and spatially represent coastal and marine protected areas, conservation zones, and restricted fishing areas in the Gulf of Maine. However, it is important to recognize that this database is not a finished product, but a work progress. Because regulations constantly change and more protected areas are expected to be designated in the near future, the GIS database must be updated on a regular basis. In particular, there will be a need to update offshore fishing regulations, which are more likely to change than more static coastal state and federal protected areas. There is also a need to add local government and private sites to the database in both the U.S. and Canada, as well as non-government organization sites (e.g. Audubon Society, Nature Conservancy) in the U.S., as Canada already has these sites compiled in point form with limited attributes. Finally, a candidate site layer should be added to allow the user to include these sites on the map in examining the future of protected areas in the Gulf of Maine. A site roster is included in the Appendix to: Brody, Samuel. 1998. *Report # 3, An Evaluation of the Establishment Processes for Marine Protected Areas in the Gulf of Maine: Understanding the Role of Community Involvement and Public Participation.*

The GIS database demonstrates a collaborative approach to collecting, storing, and portraying information about protected areas. Continued maintenance and development of the database will enable interested parties to better assess the existing level of marine resource protection in the Gulf of Maine. By analyzing and graphically displaying information, users of the system can determine the commonalties and differences among sites, see where protection measures overlap, and make conclusions about the level of resource protection across jurisdictional boundaries. When combined with other data layers, the GIS database will act as a tool to assist decision makers in locating future protected areas. A centralized database providing the location and extent of existing resource protection will make it easier for decision makers to designate future sites that contribute to a network or system of protected areas in the Gulf of Maine.

## Appendix A: Gulf of Maine GIS Database Contact List

### Canada:

#### Derek Fenton

Department of Fisheries and Oceans  
Canada Oceans Act Coordination Office  
B500 5<sup>th</sup> Floor Polaris  
PO Box 1006  
Dartmouth, Nova Scotia  
B2Y 4A2  
Tel: (902) 426-2201  
Fax: (902) 426-1484  
Derek.Fenton@Maritimes.dfo.ca

#### Geoff Howell

Environment Canada  
Data Systems  
Tel: (902) 426-4196  
geoff.howell@ec.gc.ca

#### Inka Milewski

World Wildlife Fund: Canada  
RR2  
Chatham, NB E1N 2A2  
Tel: (506) 622-2460  
Fax: (506) 622-2438  
milewski@nbnet.nb.ca

#### Martin Wilison

Biology Department  
DalHousie University  
Halifax, NS B3H 4J1  
Tel: (902) 494-3515  
Fax: (902) 494-3736

**Error! Bookmark not defined.**

### Maine:

#### Debra Kimbrel Anderson

Rachel Carson NWR  
Box 751  
Wells, ME 04090  
Tel: (207) 646-9226  
Fax (207) 646-6554

#### Seth Barker

Marine Scientist  
Department of Marine Resources  
Bureau of Resource Management  
West Boothbay Harbor, ME 04575  
Tel: (207) 633-3735  
Fax: (207) 633-9579  
seth.barker@state.me.us

#### Phil Bosenhart

ME Department of Fisheries & Wildlife  
Regional Office  
RR #1  
358 Shaker Road  
Gray, ME 04039  
Tel: (207) 657-2345 or (800) 295-2435

#### Tom Charles

ME Bureau of Public Lands  
Eastern Region  
Box 415  
Old Town, ME 04468  
Tel: (207) 778-8231  
Fax: (207) 778-5932

#### Richard Dressler

ME Department of Inland Fishery &  
Wildlife Office  
Habitat Division  
650 State Street  
Bangor, ME 04401-5654  
Tel: (207) 641-4467  
Fax: (207) 941-4443

**Error! Bookmark not defined.**

#### Jean Dumont

ME Department of Fisheries & Wildlife  
Regional Office  
RR #3  
Box 6378  
Sidney, ME 04330-9711  
Tel: (207) 547-5318 or (800) 292-7436

Tom Eldridge

ME Fish & Wildlife Department  
284 State Street  
41 State House Station  
Augusta, ME 04333-0041  
Tel: (207) 287-2211  
Fax: (207) 287-2400

John Federman

Patrol Officer  
ME Department of Marine Resources  
Environmental Law Enforcement  
21 State House Station  
Augusta, MA 04333-0038  
Tel: (207) 624-6550

Tim Hall

ME Department of Inland  
Fisheries & Wildlife  
650 State Street  
Bangor, ME 04401-5654  
Tel: (207) 941-4014

Herb Hartman

ME DOC Deputy Director  
22 State House Station  
Augusta, MA 04333  
Tel: (207) 287-2211  
Fax: (207) 287-2400

Richard Kelley

Cartographer  
ME State Planning Office  
Station #38  
Augusta, ME 04333  
Tel: (207) 287-8932

John Kenney

Wildlife Biologist  
ME Department of Inland  
Fisheries & Wildlife  
284 State Street  
41 State House Station  
Augusta, ME 04333-0041

Tel: (207) 287-2871

John.Kenney@state.me.us

Kate King

ME GIS Office  
Station #125  
Augusta, ME 04333  
Tel: (207) 287-6376

Kent Kirpatrick

Wells NERR  
342 Landholm Farm Road  
Wells, ME 04090  
Tel: (207) 646-1555 x24  
wellsnerr1@cybertours.com

Sheila McDonald

ME Bureau of Parks and Lands  
22 State House Station  
Augusta, ME 04333  
Tel: (207) 287-4975

Lori Monroe

Moosehorn NWR  
Rural Route 1  
Box 202, Suite 1  
Baring, ME 04694-9703  
Tel: (207) 827-6134

Srgt. Jim Salisbury

ME Department of Marine Resources  
Environmental Law Enforcement  
21 State House Station  
Augusta, MA 04333-0038  
Tel: (207) 624-6550

Tom Shaeffer

Regional Wildlife Biologist  
ME Department of  
Inland Fisheries & Wildlife  
68 Water Street  
Machias, ME 04654  
Tel: (207) 255-4715

Beth Shwartz

ME Department of  
Inland Fisheries & Wildlife  
650 State Street  
Bangor, ME 04401-5654  
Tel: (207) 641-4467  
Fax: (207) 941-4443

Robin Smith

ME Bureau of Public Lands  
Western Region  
Box 327  
Farmington, ME 04938  
Tel: (207) 778-8231

St Croix Island HIS

c/o Acadia National Park  
PO Box 177  
Bar Harbor, ME 04609-0177  
Tel: (207) 288-3338

Stan Stutek

Refuge Manager  
Petit Manan NWR  
U.S. Fish & Wildlife Service  
P.O. Box 279  
Milbridge, ME 04658-0279  
Tel: (207) 546-2124

Laura Taylor

Department of Marine Resources  
21 State House Station  
Augusta, MA 04333-0038  
Tel: (207) 624-6576  
Fax: (207) 633-9579  
Email: laura.taylor@state.me.us

Dan Walters

GIS Administrator  
Office of ME GIS  
Station #125  
Augusta, ME 04333  
Tel: (207) 287-3897

**Massachusetts:**Brad Barr

NOAA / Stellwagen Bank NMS  
14 Union Street  
Plymouth, MA 02360  
Tel: (508) 747-1691  
Fax: (508) 747-1949  
Email: bbarr@ocean.nos.noaa.gov

Leigh Bridges

MA Division of Marine Fisheries  
100 Cambridge Street  
Boston, MA 02202  
Tel: (617) 727-3193 x336  
Fax: (617) 727-7988  
Tel: (508)-282-0308 x108 in Gloucester  
**Error! Bookmark not defined.**

Gary Briers

MA Executive Office of  
Environmental Affairs  
20 Somerset Street  
Third Floor  
Boston, MA 02108  
Tel: (617) 727-3180 x663

Chris Chisholm

MA Executive Office of  
Environmental Affairs  
20 Somerset Street  
Third Floor  
Boston, MA 02108  
Tel: (617) 727-3180 x533

Rob Covax

c/o Maudslay State Park  
Curzen Mill Road  
Newburyport, MA 01950  
Tel: (978) 465-7223

Albert Dugan  
 Department of Environmental  
 Management  
 349 Lincoln Street, Bldg 45  
 Hingham, MA 02043  
 Tel: (781) 740-1605 x204

Jack Fillio  
 Thatcher Island NWR /  
 Parker River NWR  
 U.S. Fish & Wildlife Service  
 Northern Blvd  
 Plum Island  
 Newburyport, MA 01950  
 Tel: (508) 465-5753

Patricia Fiorelli  
 New England Fishery  
 Management Council  
 5 Broadway  
 Saugus, MA 01906-1036  
 Tel: (781) 231-0422  
 Fax (617) 565-8937  
 Email: pfiorelli@nefmc.org

Andy French  
 Northeast Region  
 Refuges and Wildlife Office  
 300 Westgate Center Drive  
 Hadley, MA 01035-9589  
 Tel: (413) 253-8590  
 Fax: (413) 253-8480  
[www.fws.gov/~r5fws/](http://www.fws.gov/~r5fws/)

Susan Ford  
 MA Water Resources Authority  
 Charlestown Navy Yard  
 100 1<sup>st</sup> Avenue  
 Boston, MA 02129  
 Tel: (617) 241-6506

Mike Gildesgame  
 Director of Water Resources  
 Department of Environmental  
 Management

100 Cambridge Street  
 Boston, MA 02202  
 Tel: (617) 727-3267 x565  
**Error! Bookmark not defined.**

Debby Graham  
 Ocean Sanctuary Program  
 Department of Environmental  
 Management  
 Room 1904  
 100 Cambridge Street  
 Boston, MA 02202  
 Tel : (617) 727-3267 x526

Dorothy Grasscamp:  
 GIS technician  
 MA Executive Office of  
 Environmental Affairs  
 Mass GIS  
 20 Somerset Street  
 Thrid Floor  
 Boston, MA 02108  
 Tel: (617) 727-1614 x381  
[www.magnet.state.ma.us/mgis](http://www.magnet.state.ma.us/mgis)

Tom Hoopes  
 MA Department of Marine Fisheries  
 100 Cambridge Street  
 Government Center  
 Boston, MA 02202  
 Tel: (617) 727-1306 x112  
 Tel: (508) 282-0308 x112 in Gloucester  
**Error! Bookmark not defined.**

Dan Kazer  
 Park Curator  
 Salem Maritime NHS  
 174 Derby Street  
 Salem, MA 01970  
 Tel: (978) 740-1690  
 Visitor Center: (978) 740-1650

Albert Kenny

Department of Environmental  
Management  
349 Lincoln Street, Bldg 45  
Hingham, MA 02043  
Tel: (781) 740-1605 x201

Mike Magnifico

Salisbury Beach State Reservation  
P.O. Box 5303  
Salisbury, MA 01952  
Tel: (978) 462-4481

Dan Martin

MA Coastal Zone Management  
100 Cambridge Street  
20<sup>th</sup> Floor  
Boston, MA 02202  
Tel: (617) 727-9530 x452  
Fax: (617) 727-2754

Don Matinzi

c/o Department of Environmental  
Management  
Area 1  
Regional Headquarters  
P.O. Box 66  
South Carver, MA 02366  
Tel: (508) 866-2580

Dan McKiernan

MA Division of Marine Fisheries  
Leverett Saltonstall Bldg  
100 Cambridge Street  
Government Center  
Boston, MA 02202  
Tel: (617) 727-3193 x369

Bill Miner

MA Division of Fish & Wildlife  
100 Cambridge Street  
Government Center  
Boston, MA 02202  
Tel: (617) 727-3151

Maggie Mooney-Seus

Conservation Department  
New England Aquarium  
Central Wharf  
Boston, MA 02110  
Tel: (617) 973-6587  
Fax: (617) 973-0242  
Email: mmooneys@aol.com

Steve Nicole

c/o Nickerson State Park  
3488 Main Street  
Brewster, MA 02631-1521  
Tel: (508) 896-3491 or (508) 896-4615

Sue Oliviera

Northeast Region  
Refuges and Wildlife Office  
300 Westgate Center Drive  
Hadley, MA 01035-9589  
Tel: (413) 253-8571  
Fax: (413) 253-8480

Mike Pentony

Fishery Analyst  
New England Fishery Management  
Council  
5 Broadway  
Saugus, MA 01906-1036  
Tel: (781) 231-0422  
Fax (617) 565-8937  
Email: mwp@nefmc.org

David Pierce

MA Division of Marine Fisheries  
Leverett Saltonstall Bldg  
100 Cambridge Street  
Government Center  
Boston, MA 02202  
Tel: (617) 727-3193 x366

Tel: (978) 281-9326  
 Mary.Tokarcik@noaa.gov

Joe Pilzarski  
 MA Coastal Zone Management  
 100 Cambridge Street  
 20th Floor  
 Boston, MA 02202  
 Tel: (617) 727-9530  
 Fax: (617) 727-2754

Greg Scott  
 Executive Office of  
 Environmental Affairs  
 Mass GIS  
 20 Somerset Street  
 Third Floor  
 Boston, MA 02108  
 Tel: (617) 727-5227 x327  
 Fax: (617) 227-7045  
[www.magnet.state.ma.us/mgis](http://www.magnet.state.ma.us/mgis)

Dan Sheane:  
 National Marine Fisheries Service  
 Northeast Regional Office  
 One Blackburn Drive  
 Gloucester, MA 01930  
 Tel: (978) 281-9355

Elizabeth Sorenson  
 ACEC Program  
 Department of Environmental  
 Management  
 Division of Resource Conservation  
 100 Cambridge Street, Rm 1404  
 Boston, MA 02202  
 Tel: (617) 727-3160 x552  
 Fax: (617) 727-2630  
[elizabeth.sorenson@state.ma.us](mailto:elizabeth.sorenson@state.ma.us)

Mary Tokarcik  
 National Marine Fisheries Service  
 Northeast Regional Office  
 One Blackburn Drive  
 Gloucester, MA 01930

Michael Trust  
 Executive Office of  
 Environmental Affairs  
 Mass GIS  
 20 Somerset Street  
 Third Floor  
 Boston, MA 02108  
 Tel: (617) 727-5227  
 Fax: (617) 227-7045  
[michael.trust@state.ma.us](mailto:michael.trust@state.ma.us)

Jordie Vining  
 Department of Environmental  
 Management  
 100 Cambridge Street  
 Boston, MA 02202  
 Tel: (617) 727-3160  
 Fax: (617) 727-2630

## **New Hampshire:**

Mary Goodyear  
 Program Specialist  
 State of New Hampshire  
 Department of Resources and Economic  
 Development  
 Parks and Recreation Department  
 172 Pembroke Road  
 P.O. Box 1856  
 Concord, NH 03302-1856  
 Tel: (603) 271-3556  
 Fax: (603) 271-2629  
**Error! Bookmark not defined.**

Steve Jones:  
 Jackson Estuarine Laboratory  
 85 Adams Point Road  
 Durham, NH 03824  
 Tel: (603) 862-2175

Shj@christa.unh.edu

Kristofer Klefos

Administrator  
State of New Hampshire  
Department of Resources and  
Economic Development  
Parks and Recreation Department  
172 Pembroke Road  
P.O. Box 1856  
Concord, NH 03302-1856  
Tel: (603) 271-3556  
Fax: (603) 271-2629  
Nhparks@dred.state.nh.us

Jen Merriam

Complex Systems Research Center  
Institute for the Study of Earth,  
Oceans, and Space  
Morse Hall  
University of New Hampshire  
Durham, NH 03824  
Tel: (603) 862-1792

Chris Nash

NH Estuaries Project  
152 Court Street, Suite 2  
Portsmouth, NH 03801-4485  
Tel: (603) 431-9366  
Fax: (603) 431-1438

John Nelson

Chief of Division of Marine Fisheries  
New Hampshire Fish & Game  
Region 3  
37 Concord Road  
Durham, NC 03824  
Tel: (603) 868-1095  
Fax: (603) 868-3305  
Email: [region3@juno.com](mailto:region3@juno.com)

Cheri Rogers

Division of Marine Fisheries  
New Hampshire Fish & Game  
Region 3

225 Main Street  
Durham, NH 03824-4732

Tel: (603) 868-1095

Fax: (603) 868-3305

Email: **Error! Bookmark not defined.**

Fay Rubin

GIS Coordinator  
Complex Systems Research Center  
Institute for the Study of Earth,  
Oceans, and Space  
Morse Hall  
University of New Hampshire  
Durham, NH 03824  
fay.rubin@unh.edu  
Tel: (603) 862-1792

Bruce Smith

Marine Biologist  
NH Fish & Game Department  
Region 3  
225 Main Street  
Durham, NH 03824-4732  
Tel: (603) 868-1095  
Fax: (603) 868-3305

Kim Sprankle

GIS Specialist  
U.S. Fish & Wildlife Service  
22 Bridge Street Unit 1  
Concord, NH 03301  
Tel: (603) 225-1411

Peter Wellenberger

Great Bay NERR  
NH Fish & Game Department  
Marine Fisheries Department  
37 Concord Road  
Durham, NH 03824  
Tel: (603) 868-1095

Valana Winslow Pratt  
Environmental Supervisor  
NH Estuaries Project  
152 Court Street, Suite 2  
Portsmouth, NH 03801-4485  
Tel: (603) 431-9366  
Fax: (603) 431-1438

