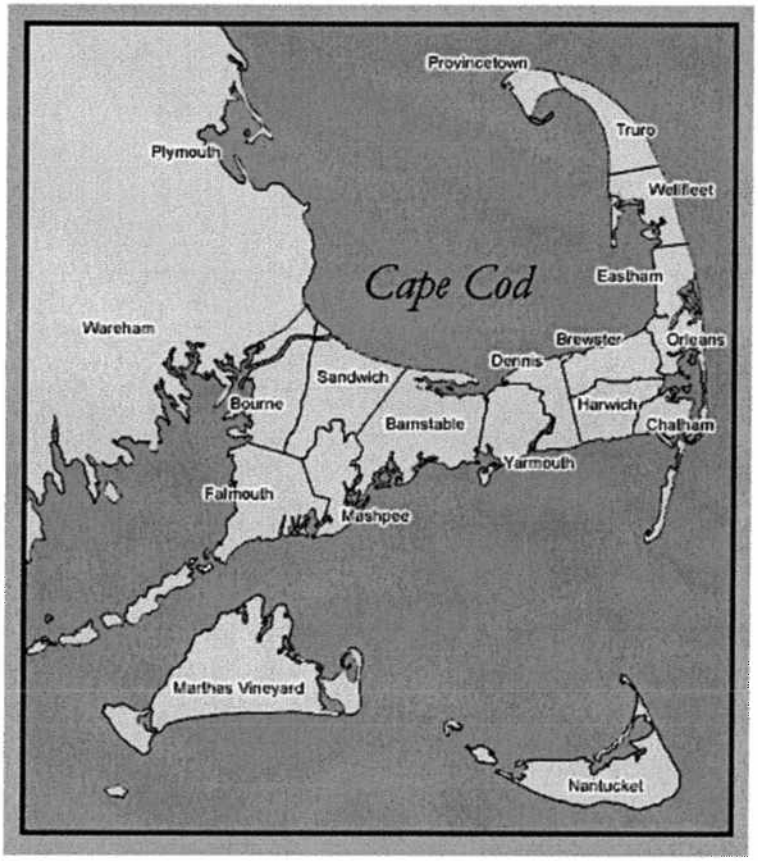
Appendix D

National Marine Sanctuary Site Evaluations, Recommendations, and Final Reports



June 7, 1983

NATIONAL MARINE SANCTUARY SITE EVALUATIONS

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Recommendations and Final Reports

June 7, 1983

prepared by
CHELSEA INTERNATIONAL CORPORATION
1718 P St., NW
Washington, DC 20036

for

National Oceanic & Atmospheric Administration
Office of Ocean and Coastal Resource Management
Sanctuary Programs Division

Contract # NA-82-SAC-00647

ACKNOWLEDGEMENTS

This project was truly a joint effort of Chelsea International Corporation staff, our scientific consultants and the Research Planning Institute technical staff. Special thanks are in order for their dedicated efforts.

In addition to the 30 Resource Evaluation scientists, the Project Team was composed of the following individuals. Each demonstrated special talents and expertise in completing his or her responsibilities which are also presented below.

PROJECT TEAM	RESPONSIBILITIES
CHELSEA INTERNATIONAL CORPORATION	
Mr. Wayne C. Savage	Project Manager
Mrs. Jean R. Packard	Public Participation Coordinator
Dr. James S. Mattson (Consultant)	Program Manager - North and South Atlantic, Gulf of Mexico and the Caribbean Regions
Mr. Craig H. Hooper (Consultant)	Program Manager - Great Lakes, Eastern and Western Pacific and the Alaskan Regions
RESEARCH PLANNING INSTITUTE, Columbia, South Carolina	
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I. SUMMARY REPORT FOR THE NATIONAL MARINE SANCTUARY SITE EVALUATION PROGRAM

SUMMARY REPORT FOR THE
NATIONAL MARINE SANCTUARY PROGRAM

Concerned about mounting use and pressures on the marine environment, Congress enacted legislation in the 1970s to manage and protect our offshore areas. One such Congressional response -- the Marine Protection, Research Sanctuaries Act of 1972 -- provides a comprehensive and balanced approach for the preservation and multiple use of selected marine areas. Title III of the Act authorizes the Secretary of Commerce to designate areas of ocean and the Great Lakes waters as marine sanctuaries to preserve or restore them "for their Conservation, recreational, ecological, or esthetic values." The National Oceanic and Atmospheric Administration (NOAA) administers Title III through its Office of Ocean Coastal Resource Management, Sanctuary Programs Office (SPO).

Formation of the National Marine Sanctuaries Program resulted from this 1972 Congressional initiative. Focusing on comprehensive management and protection of diverse marine areas, the National Marine Sanctuaries Program identifies marine and Great Lakes sites of long-term resource benefit and public enjoyment. The program, not strictly regulatory in nature, represents a management tool for national marine resource development, conservation, and use. Simply stated, the program provides a balance among multiple uses of designated marine and Great Lakes areas.

Under Title 15 of the Code of Federal Regulations, Part 922 -- Marine Sanctuaries, until the September 7, 1982 publication of proposed revised rules, any person could recommend a site for consideration as a possible marine sanctuary. Those regulations set forth procedures and criteria to review sanctuary candidates for possible placement on a List of Recommended Areas (LRA). Once determined by NOAA, the LRA was published in the Federal Register with no additional public input required. As a result of this process, NOAA received an extraordinary range of site nominations, which varied substantially in size and technical supporting data. The nomination process became unwieldy; occasionally sites were nominated to prevent certain uses from occurring in a particular area. This led to Congressional and public concern over the nomination process.

In February 1982, the Chelsea International Corporation of Washington, D.C., was awarded a contract to recommend marine areas for possible placement on a Site Evaluation List (SEL). The Program Development Plan (PDP) designed by NOAA for marine sanctuaries specified that sites had to be selected and evaluated not only on their scientific and resource merits but also on their human use and management values. The objective of NOAA's

10. One or more regional meetings are held to solicit government and public comment on the selected site and its proposed management plan. Appropriate revisions are then completed and reviewed with interested parties, and any additional meetings are held with relevant Federal agencies.

11. A public hearing is held on the DEIS and draft management plan no less than 30 days after notice in the Federal Register; written comments are accepted for 45 days after date of notice.

12. A final environmental impact statement (FEIS) is prepared and distributed for final comment.

13. Final consultation occurs with Federal agencies and state officials.

14. The Secretary of Commerce, upon approval of the President, designates the area as a National Marine Sanctuary.

15. The designation is effective unless the Governor of a State with waters lying within the boundary of the site objects to its designation, or both Houses of Congress adopt a concurrent resolution of disapproval within 60 days of continuous Congressional session.

SCIENTIFIC RESOURCE EVALUATION TEAMS

As contracted, Chelsea International was responsible for completing the resource evaluation efforts and for drafting the recommendations to NOAA of areas worthy of sanctuary designation. To carry out this charge, Chelsea established teams of nationally recognized marine scientists for eight regions whose boundaries approximate those of the Regional Fishery Management Councils specified in the Magnuson Fishery Conservation and Management Act of 1976. For the SEL process, the boundary between the North and South Atlantic regions was Cape Hatteras, North Carolina; the boundary between the South Atlantic and Gulf of Mexico regions was U.S. Route 1 in the Florida Keys.

The scientific resource evaluation teams were comprised of the following scientists:

Gulf of Mexico Region

Dr. Thomas Bright, Team Leader
Department of Oceanography
Texas A&M University
College Station, Texas
(Marine Biology)

Dr. David A. Gettleson
Continental Shelf
Associates
Tequesta, Florida
(Marine Biology)

Dr. William G. McIntire
Associate Dean, Center for
Wetland Resources (retired)
Louisiana State University
Wofford Hts., CA
(Coastal Geology)

Dr. James P. Ray
Shell Oil Company
Houston, Texas
(Marine Biology)

North Atlantic Region

Dr. Maurice Lynch, Team Leader
Virginia Institute of Marine Sciences
College of William and Mary
Gloucester Point, Virginia
(Marine Biology)

Dr. Bostwick Ketchum
Professor Emeritus
Woods Hole Oceanographic
Institute
Woods Hole, Massachusetts
(Marine Biology)

Dr. Jeffrey Levinton
Dept. of Ecology and Evolution
State University of New York
at Stony Brook
Stony Brook, New York
(Marine Biology)

Dr. Walter Adey
Director, Marine Systems
Laboratory
Smithsonian Institution
Washington, D.C.
(Marine Biology)

Dr. H. Perry Jeffries
(replaced Dr. Bostwick Ketchum)
Graduate School of Oceanography
University of Rhode Island
Kingston, Rhode Island
(Marine Biology)

South Atlantic Region

Dr. Vernon J. Henry, Team Leader
Chairman, Geology Department
Georgia State University
Atlanta, Georgia
(Marine Geology)

Dr. F. John Vernberg
Director, Belle Baruch
Institute for Marine
Biology
University of South
Carolina
Columbia, South Carolina
(Marine Biology)

The teams, comprised of independent scientists with knowledge of the values and uses of coastal waters within their region, were charged to:

- Identify and recommend areas within their region, based on NOAA's scientific selection criteria, for consideration as potential sanctuary sites.
- Acquaint State and local governmental entities and regional interest groups with the site selection process.
- Recommend no more than five sites in the region to NOAA following the public comment period.

To support these teams, Chelsea and the technical staff of the Research Planning Institute, Inc. (RPI) coordinated the program and complemented the efforts of the teams. Chelsea's Project Manager and two Program Managers were in frequent contact with the team leaders, NOAA officials, and others concerned. One Program Manager was responsible for the North Atlantic, South Atlantic, Gulf, and Caribbean teams; the other Program Manager coordinated efforts with the Alaska, Great Lakes, East Pacific, and West Pacific teams. Chelsea and RPI support included meeting organization, distribution of materials, and technical expertise for drafting of site descriptions and reports.

RESOURCE EVALUATION CRITERIA

As specified by NOAA's Program Development Plan (PDP), the teams used NOAA's scientific criteria in their evaluations and deliberations. The criteria, which address characteristics of particular significance to the National Marine Sanctuaries Program, are grouped in the following four categories with accompanying subheadings:

SITE NOMINATION PROCESS

The site nomination process began in March 1982 with two team leader orientation meetings in Washington, D.C. NOAA's Sanctuary Program Office (SPO) extensively briefed Chelsea staff and the team leaders on program status, desired goals, and the site evaluation criteria. Chelsea was asked to present NOAA with a revised plan on an accelerated schedule instead of the 15-month plan called for in the initial Request for Proposal. The accelerated plan required two meetings in each region -- the first to identify sites meeting the necessary criteria and the second to select and recommend final sites for NOAA following the public comment period.

To facilitate the delivery of recommendations to NOAA in the requested 12 months, meeting schedules were rigid. The regional resource evaluation teams were provided NOAA's PDP and criteria and briefed on the planned process by the Team Leader. The team members were asked to nominate areas for possible consideration at the first regional meeting. These nominations were to be based on personal knowledge, research, and contacts with colleagues familiar with the resources of the region. Members were encouraged to discuss candidate sites with others interested or knowledgeable of the area. Detailed documentation of the resources and values of a nominated area was mandated for the meeting.

First Regional Team Meetings

Chelsea arranged two-day meetings for team members to discuss potential sites. No limitation was placed on the number of areas for suggestion, but each team had to consider the sites within the region that were on the LRA and each member was aware of the charge for final recommendation of <u>five</u> sites to NOAA for inclusion on its SEL.

One team meeting per week was held from April 15, 1982, to June 9, 1982. At these first meetings, discussion centered on site description, resource evaluation, the reason for sanctuary nomination, and other pertinent information. Following each regional team meeting, the RPI technical staff prepared detailed site descriptions, which presented the technical merits of each site, identified resource or management issues, and provided a list of references

Public Participation Process

Of critical concern to NOAA and the team members was public participation and comment in the sanctuary nomination process. The public was encouraged to comment on the candidate sites identified by the teams that met NOAA's scientific criteria.

marine sanctuaries. Each team read the comments, talked to interested individuals, groups, or officials, and developed a priority listing based on the sites previously identified and those identified public.

Second Regional Team Meetings

Beginning in September 1982 and ending in October 1982, the second team meetings followed the public comment and site nomination period. These meetings focused on ranking sites for submission of the final five to NOAA.

A problem arose -- five teams (Great Lakes, Gulf of Mexico, North Atlantic, South Atlantic, and West Pacific) had received nominations from the public which they believed worthy of full consideration for nomination. In each case, the public nominator provided comprehensive scientific and resource information, and, in some cases, presented data not previously available to the team members. Although each of these five teams took a slightly different approach in the final selection, each conducted additional discussions and evaluations of the sites considered worthy of additional consideration. In those regions where the final list of five recommended sites included one of these public-recommended nominees, NOAA agreed to another round of comment on the new site descriptions. The revised packages were sent to individuals on the original mailing list of each of the five regions with a response request within 30 days. Because of particular circumstances in the North Atlantic region, a third mailing was conducted, which is described in the chapter on the North Atlantic region.

Following this second round of public comment and evaluation, the regional resource evaluation teams made their final selection of 33 sites to recommend to NOAA for inclusion on its SEL.

It must be noted that NOAA asked Chelsea to terminate its efforts in the Alaska region on November 2, 1982. During the public comment period for Alaska, numerous concerns arose about the concept of a sanctuary, possible restrictions, the size and number of sites, and the perceived lack of public participation raised by Alaskan fishermen and public officials. Although Chelsea attempted to address these concerns through extensive outreach efforts, communication difficulties, timing, and Alaskan Congressional requests halted the process. Therefore, the final list or recommendations does not contain sites within the boundaries of the Alaskan region.

Final regional reports reflect member sensitivity to the conflicting interests of such a process and to the public perceptions of such deliberations. Boundaries were particularly controversial, and several teams stressed the need for NOAA,

South Atlantic Region

Ten Fathom Ledge - Big Rock, North Carolina
White Oak River System, North Carolina
Santee Delta, South Carolina
Port Royal Sound, South Carolina
Florida Shelf Coral gounds

West Pacific Region

Northern Mariana Islands
Cocos Lagoon, Guam
Papaloloa Point (Ofu Island), American Samoa
Southern Mariana Islands
Facpi Point, Guam.

THE REPORT

The following chapters contain the individual regional reports which discuss site identification, evaluation, and the recommendation process for the region. Issues addressed by the team are presented as well as methods and reasons for site selections. A final site description and map for each recommended area also is included.

NORTH ATLANTIC REGION

MARINE SANCTUARY SITE EVALUATION LIST
NORTH ATLANTIC REGION

MANAGEMENT OVERVIEW

1. Resource Evaluation Team

The North Atlantic resource evaluation team was initially comprised of four marine biological scientists, one each from Massachusetts, New York, Virginia, and the Smithsonian Institution in Washington, DC. The team leader was Dr. Maurice P. Lynch of the Virginia Institute of Marine Sciences, College of William and Mary. The other team members were Dr. Bostwick ("Buck") Ketchum, Professor-Emeritus from Woods Hole Oceanographic Institute; Dr. Jeffrey Levinton of the Department of Ecology and Evolution, State University of New York at Stony Brook, and Dr. Walter Adey, Director of the Marine Systems Laboratory of the Smithsonian Insitution.

At untold loss to the marine science community, Buck Ketchum died on July 15, 1982. He was replaced on the resource evaluation team by Dr. H. Perry Jeffries of the Graduate School of Oceanography, University of Rhode Island. Dr. Jeffries is also a biologist. During the site evaluation process, both Drs. Lynch and Jeffries made several contacts within their respective states with state government officials, environmental groups, and other marine scientists.

2. Site Evaluation and Public Participation Process

The team met on April 26-27, 1982, in Stony Brook, NY, for its initial consideration of potential North Atlantic sanctuary sites. Five potential sites were proposed after the team had evaluated 27 possible Marine Sanctuary sites, including all of the North Atlantic areas that were on NOAA's List of Recommended Areas (44 Fed. Reg. 62552, Oct. 31, 1979). Descriptions of the five sites were mailed to 250 individuals and groups, including 82 national organizations and Federal agencies, for comment. The initial five sites were:

NA-1. Isles of Shoals, ME and NH. This site encompassed the waters within a 3-mile radius of the Isles of Shoals, which are about 15 mi southeast of Portsmouth, NH, and lie astride the Maine - New Hampshire border.

NA-2. Plymouth Bay, MA. This 25 sq mi site included Plymouth Bay and the adjacent nearshore waters out to about one mile from shore.

NA-4 Nantucket Shelf (modified)
NA-5 Virginia - Maryland Nearshore Waters and Barrier Island Bays (Modified)
NA-6 Stellwagen Bank
NA-7 Narragansett Bay and Block Island Sound, RI

In response to the second request for public comments, Chelsea received 92 responses, most of which were comments in favor of NA-5, the combined Assateague Island - Virginia Barrier Islands proposal.

2.1. The Maine Problem

At the beginning of the site evaluation process, Chelsea and the North Atlantic team were instructed not to consider the State of Maine because two contracts for Marine Sanctuary site evaluation were already underway in Maine. One contract had been let to the Marine Systems Laboratory of the Smithsonian Institution, and that project's principal investigator, Dr. Walter Adey, had since been named as a member of the resource evaluation team. The other contract had been let to the Maine Department of Marine Resources, headed by Dr. Spencer Appolonio. At an initial meeting of team leaders and NOAA personnel, the team leader, Dr. Maurice Lynch, was told that both contracts would produce nominations for Maine sites by the time of the second team meeting.

Neither contractor produced a recommendation by the time of the team's second meeting on September 23, 1982, and the entire coast of Maine might have been left out of the site evaluation process. Both contractors were then instructed by NOAA to submit site nominations immediately, so that the resource evaluation team could evaluate Maine sites along with the rest of the North Atlantic region. Those descriptions were received in early December, and were mailed out to the North Atlantic mailing list (except Virginia addressees) on December 17, 1982, with a 30-day deadline for comment. The two sites were:

NA-8. Frenchmen's Bay and the Gulf of Maine. A 407 sq mi site is next to Acadia National Park and extends several miles offshore to surround Mt. Desert Rock.

NA-9. Mid-coastal Maine. This 430 sq mi site lies to the west of Frenchmen Bay and takes in the waters around several offshore islands, three estuaries, and two bays.

The Maine public comment exercise turned out to be explosive. As the January 17 deadline approached, NOAA extended the comment period another 30 days, to February 17, 1983. Throughout the 60-day comment period, Chelsea periodically sent copies of all correspondence to the team members, with the final batch going to the team leader at the close of business on February 17. On or

3.2.1 Virginia - Maryland Nearshore Waters and Barrier Island Bays, VA and MD.

This is the recommended Virginian site. It includes 1200 sq mi off the coasts of Maryland and Virginia, and extends 10 mi offshore. When the site was first put forward with only the Virginia offshore area included, it elicited 31 comments, 16 in favor, 8 opposed and 7 neutral. The local units of government opposed the proposal, but the State of Virginia officially adopted a "wait-and-see" attitude. At the same time, another 9 commenters recommended inclusion of the waters around Assateague Island (MD). It would be a mistake to take public support for granted on this site but the resource evaluation team believes that a Virginian biogeographic site should be on the final SEL.

When the Assateague nomination was added to the Virginia Barrier Islands proposal, the public response was overwhelmingly favorable. 64 commented, with 52 in support, 4 opposed and 8 neutral. The State of Maryland endorsed the new site, and Virginia was still willing to give it fair consideration. Local Virginia governments, however, are still opposed.

3.2.2. Narragansett Bay and Block Island Sound, RI

This site is the nearshore "anchor" in the biogeographic transition region between the Acadian and the Virginian regimes. Strong local support for this proposal was evidenced at the team's second meeting, where the nomination was defended by the new team member, Dr. Perry Jeffries of the University of Rhode Island. Although the site is entirely in State waters, it appears to have the support of the State of Rhode Island.

3.2.3. Nantucket Shelf

At the first team meeting, there was some interest in creating a "swath" sanctuary that would extend from Cape Cod to the southeastern edge of Georges Bank. This would have encompassed a large part of the biogeographical transition zone. In an effort to produce a manageable recommendation, the team proposed a nearshore site (Nantucket Harbor), a site on the shelf (Nantucket Shoals), and one of the canyons at the edge of the shelf (Hydrographer).

Between the two team meetings, the State of Massachusetts proposed the Federal waters between Cape Cod and Nantucket Island (the "Hole-in-the-Doughnut") as well as Great South Channel to the east of Nantucket Shoals. Cape Cod fishermen also asked the team leader to move the Nantucket Shoals boundary eastward to take in Great South Channel, which maintain is a major migratory route for commercial species.

by the North Atlantic resource evaluation team as a "special," rather than representative, site.

3.2.5. Frenchmen's Bay, ME

The resource evaluation team was of the opinion that an Acadian site should be placed on the Marine Sanctuary Site Evaluation List. Of the two sites recommended to the team, the Frenchmen's Bay-Gulf of Maine site was the preferred site based upon species representation and overall representation of the Acadian biogeographic province. [The resource evaluation team notes that Dr. Walter Adey was excluded from this decision, in light of the fact that he was the Principal Investigator on the NOAA contract that recommended Frenchmen's Bay.]

There was a tremendous response to this proposal - a total of 1,291 expressed their strong feelings, of which only 55 were supportive and 3 neutral. Environmental groups were unanimous in their support, while the fishing industry (with one exception) was unanimously opposed. Local governmental units were also opposed, as were state representatives from the area.

Early responses to the proposal were supportive. However, a substantial petition and post-card attack was organized in opposition to the proposal, which produced approximately 150 preprinted post-cards and over 1,000 signatures on various petitions. Individual letters of opposition (other than the post-cards) came from 8 fishermen and 16 others. The towns of Sullivan, Tremont and Bar Harbor officially opposed the designation, as did the Hancock County Planning Commission. The Mid-Atlantic Fisheries Development Foundation supported the proposal, so long as commercial fishing activities continued.

The team, in spite of the opposition, recommends that NOAA place Frenchmen's Bay and the Gulf of Maine on the SEL. In the likely event that the site cannot garner the level of public support that would be necessary in order to go forward, the North Atlantic resource evaluation team recommends that the Mid-Coastal Maine site appear on the final Site Evaluation List. The dominant consideration remains that of securing at least one Acadian site on the final SEL. For this reason, both site descriptions were prepared by RPI and are made part of the final report.

PRELIMINARY CANDIDATE
MARINE SANCTUARY SITE EVALUATION

I. SITE LOCATION AND NAME:

A. SITE NAME: Nantucket Shelf

B. LOCATION: (NORTH ATLANTIC REGION)

1. LATITUDE/LONGITUDE: 40° to 41°30' N, 68° to 70°30' W

2. DESCRIPTION: The proposed Nantucket Shelf sanctuary site, totaling 1805 mi^2 (4650 km^2), is a series of dissimilar, biologically rich habitat types associated with and influenced by the circulation and migration patterns unique to the Georges Bank region--a biogeographic transition zone between the northern Acadian and southern Virginian provinces. Habitats included are open bay (Nantucket Sound), nearshore open ocean and shoals (Nantucket Shoals), and shelf-edge submarine canyon (Oceanographer Canyon). The Nantucket Sound site is in Federal waters between Nantucket Island and Cape Cod, Massachusetts, and its boundaries are contiguous with the Massachusetts Ocean Sanctuaries. The Nantucket Shoals and Oceanographer Canyon sites lie wholly within Federal waters off the coast of Massachusetts. A major upwelling of cold, nutrient-rich water extending along the eastern edge of the shoals serves as a temperature barrier for warm-water species to the south and is responsible for the notably high productivity exhibited by this area. The Nantucket Shelf has been extensively influenced by glacial processes (i.e., forming Nantucket Island and adjacent features). Tidal range is about 3 ft (1 m). Total area of each portion of the potential sanctuary is: Nantucket Sound 80 mi^2 (200 km^2); Nantucket Shoals 1000 mi^2 (2590 km^2); and Oceanographer Canyon 100 mi^2 (250 km^2).

II. RATIONALE FOR CONSIDERATION AS A SANCTUARY

A. DOMINANT CONSIDERATIONS

1. The area contains distinctive ecological, recreational, historic, and aesthetic resources that form the basis of the predominant economic pursuits of the area: fishing and tourism.

2. The area supports the economically valuable commercial and recreational fisheries of the area which have traditionally been a social and economic mainstay for many Cape and Island communities.

3. The area is of exceptional value for its contribution to the heritage of the United States, forming an integral part of the maritime tradition of this country.

by a variety of substrate types, and because they act as conduits for the transport of material from the shelf to the abyss, filter-feeding organisms are more common than those found on the shelf. Within Oceanographer Canyon, the concentration of organisms per 100 m^2 reaches peak values of 400-450 at depths of 1300 ft (400 m) and 6000 ft (1800 m). Major faunal groups include corals (primarily alcyonarians), echinoderms, fish, and crustaceans (particularly shrimp). Tilefish and an abundance of lobsters occur in this submarine canyon. Oceanographer Canyon, in general, is one of the better studied, northeastern submarine canyons.

2. HUMAN USES

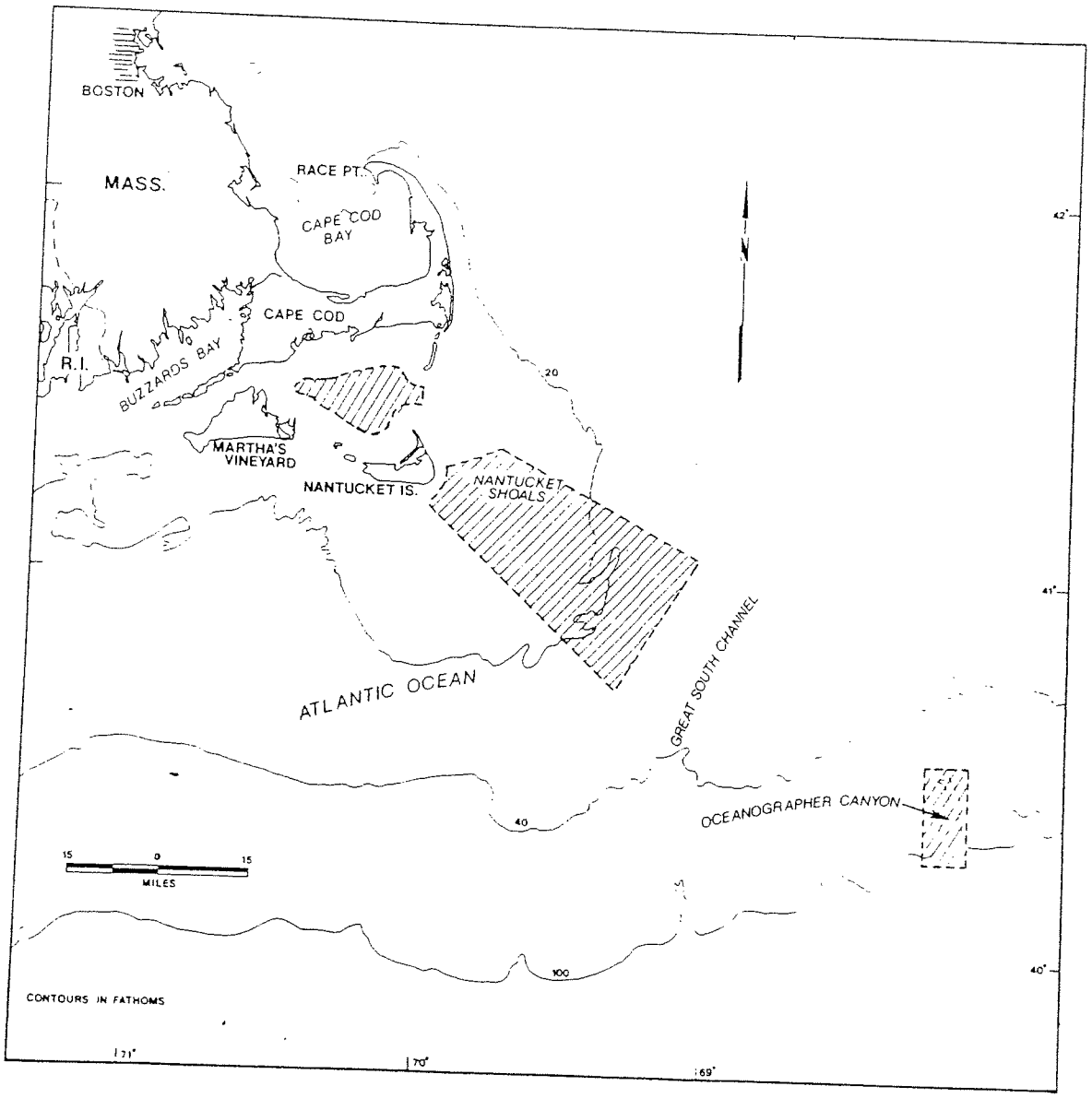
The Nantucket area is one of the most popular summer resorts on the East Coast. The high quality of the coastal waters supports a multitude of recreational activities essential to a viable tourist industry. Boating, swimming, fishing, and sightseeing enthusiasts have traditionally been lured by the area's aesthetic qualities.

The area supports significant commercial and recreational finfishing and shellfishing industries which depend upon the maintained ecological integrity and water quality of the area. Nearly 80 species of commercially important fish and shellfish occur in these waters. Black sea bass, striped bass, scup, flounder, squid, blackfish, quahog, and bay scallops are among those species which are commercially harvested locally.

The Nantucket Shelf is of exceptional value for its contribution to the maritime heritage of the United States. Since the Revolutionary War period, the area has been the location of shipyards and has served as a major shipping corridor and the home port for a large segment of America's fishing and trading industries situated along the coast. The proposed area contains a number of shipwrecks that are of historical and educational value in interpreting the maritime history of America.

Portions of the site lie on an area of the outer continental shelf which is currently being considered for oil-and-gas leasing (Lease Sale No. 82) in February 1984. Oceanographer Canyon is located in an area having high hydrocarbon potential.

The area supports a growing interest in biological and geological reasearch. The limited research performed on the canyons east and south of Nantucket indicates subtle but real differences among them in terms of current regime, habitat type, and biota. Detailed scientific study of the Nantucket Shelf complex is lacking, and therefore, the area provides a wealth of opportunities for investigating the interrelationships among the various biogeographic components. The University of Massachusetts operates Nantucket Field Station which engages in



LOCATION MAP