

A Look Ahead

Stellwagen Bank National Marine Sanctuary is in the process of implementing its Final Management Plan, published in June 2010. Under the new plan, the sanctuary is working closely with the New England Fishery Management Council and other management authorities to designate a Sanctuary Ecological Research Area, which would enable scientists to study sanctuary ecosystems in a natural state, undisturbed by human activities. Information gathered in the research area would help guide conservation of the sanctuary's diverse marine life and habitats.

The sanctuary continues to nominate shipwrecks to the National Register of Historic Places. A nomination currently in development focuses on the sunken remains of two historical sailing vessels involved in the granite trade, highlighting the sanctuary's links to the many New England communities that quarried stone for America's largest cities. The sanctuary is unique among federal authorities in preserving maritime historical resources and the connection they represent between people and the past.

Jobs, Communities and Culture

An estimated 4.8 million people live in the greater Boston metropolitan area adjacent to Stellwagen Bank National Marine Sanctuary, which is located between Cape Ann and Cape Cod. The sanctuary supports a diverse and extensive mix of commercial, recreational, scientific and educational activities that occur year-round, with vessels departing from the many ports that rim Massachusetts Bay. The Final Management Plan reports that approximately 300 commercial fishing boats operate within the sanctuary's boundaries, bringing in annual total commercial landings valued at \$15-23 million, with the most valuable commercial fisheries being lobster, cod and flounder. The sanctuary's recreational fishing industry, encompassing some 75 party and charter boats, generates a direct sales value of about \$2.5 million. Recreational fishing from private boats is another important activity. Various sources have listed the sanctuary as a premier whale watching site – one of the Top 10 locations in the world and one of only three such areas in U.S. waters. It is estimated that more than 1.2 million passengers participated in whale watching tours in New England in 2000, generating annual total direct sales of more than \$30 million to the region and \$24 million to Massachusetts alone.

NOAA's Office of National Marine Sanctuaries is committed to supporting lives and livelihoods across the nation and in sanctuary communities through socioeconomic research and monitoring to understand the economic and social drivers of sanctuary resources and improve management practices.

Stellwagen Bank National Marine Sanctuary Advisory Council Members

Officers

Chair: Richard Francis Delaney
Vice Chair: Heather Knowles
Secretary: John Williamsom

Non-Governmental Members

Research: Mason Weinrich
Alternate: Wayne Peterson
Research: Richard W. Murray, Ph.D.
Alternate: Peter Auster, Ph.D.
Conservation: Rob Moir, Ph.D.
Alternate: Jake Levenson
Conservation: Priscilla M. Brooks, Ph.D.
Alternate: Kate Killerman-Morrison
Education: Billy Spitzer
Alternate: Robert Rocha
Education: Richard Francis Delaney
Alternate: Susan Farady
Marine Transportation: Captain Francis Morton
Alternate: Bob McCabe
Recreational Fishing: Michael Sosik, Jr
Alternate: Captain Brad White

Governmental Members

State Government
Massachusetts Environmental Police (non-voting):
Captain John Tulik
Massachusetts Office of Coastal Zone Management
(non-voting): Deerin Babb-Brott
Massachusetts Division of Marine Fisheries (non-voting):
Paul J. Diodati
Alternate: David Pierce, Ph.D.
Federal Government
New England Fisheries Management Council (non-voting):
Paul J. Howard
Alternate: Michelle Bachman
NOAA National Marine Fisheries Service (non-voting):
Patricia A. Kurkul
Alternate: Jennifer Anderson
U.S. Coast Guard (non-voting):
Rear Admiral Timothy Sullivan
Alternate: Capt. Peter N. DeCola
NOAA Stellwagen Bank National Marine Sanctuary (non-voting):
Craig MacDonald, Ph.D., superintendent
Sanctuary Advisory Council Coordinator
Nathalie Ward

Whale Watching: Steve Milliken
Alternate: Bob Avila
Fixed Gear Commercial Fishing: William Adler
Alternate: David Casoni
Mobile Gear Commercial Fishing: Vita Giacalone
Alternate: Al Coitone
Business/Industry: Tim Moll
Alternate: Margaret Merrill

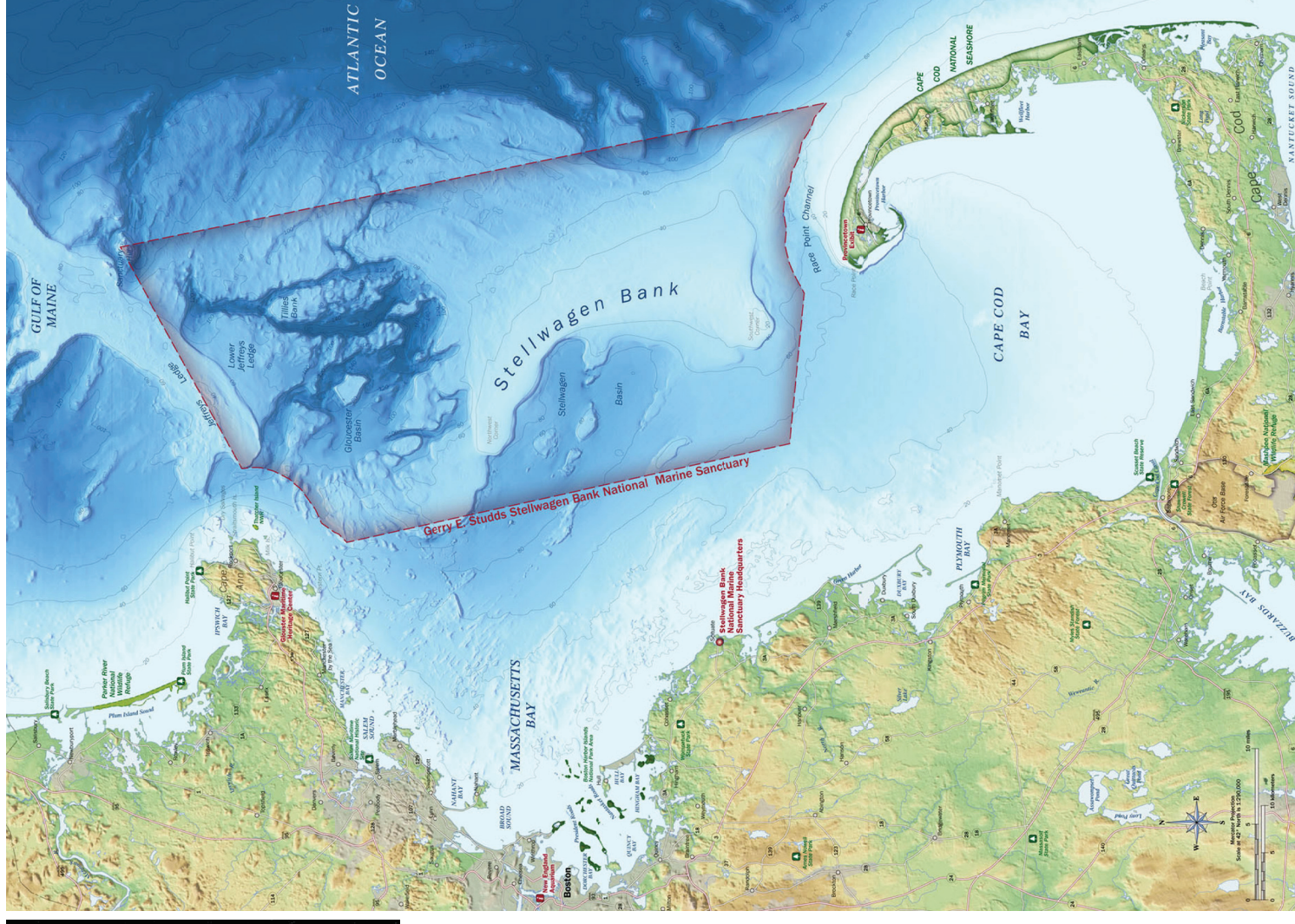
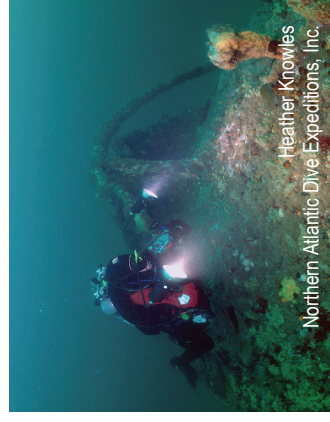
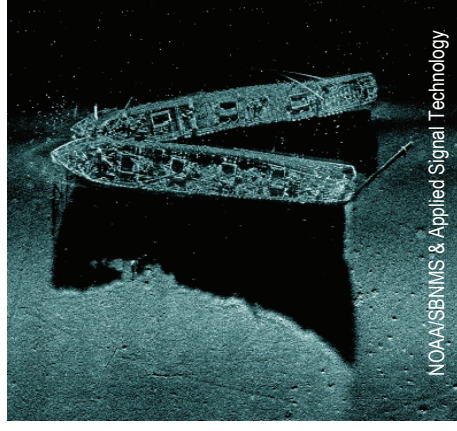
Maritime Heritage: David S. Robinson
Alternate: Mark Wilkins
Diving: Heather Knowles
Alternate: Robert W. Foster

Citizen AT-Large: Deborah Cramer
Alternate: vacant
Citizen AT-Large: John Williamsom
Alternate: Daniel Pigaro
Citizen AT-Large: Theresa Barbo
Alternate: Judy Laster

National Marine Sanctuaries
National Oceanic and Atmospheric Administration

STELLWAGEN BANK NATIONAL MARINE SANCTUARY

2010 ACCOMPLISHMENTS



Gerry E. Studts Stellwagen Bank National Marine Sanctuary sits at the mouth of Massachusetts Bay, just 25 miles from the busy port of Boston. The 842-square-mile sanctuary is one of the world's premier whale watching destinations and a historically important fishing ground. Its waters support a rich assortment of marine life, including the critically endangered North Atlantic right whale and the economically important Atlantic cod. A plethora of shipwrecks representing more than 400 years of maritime travel rest on the sanctuary seafloor. Established Nov. 4, 1992.

<http://stellwagen.noaa.gov>



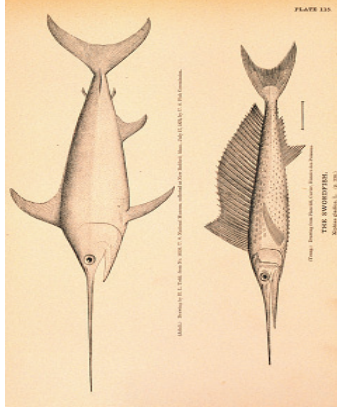
New Management Plan Released in June

After a multi-year process that began in 2000, involved public scoping sessions from Maine to Connecticut, engaged eleven working groups with some 200 members, and accumulated more than 45,500 comments from all 50 states, two U.S. Territories and 48 countries, the sanctuary released its Final Management Plan and Environmental Assessment in June 2010. The plan revises the original document that was first published in 1993. The primary goal for this plan is the protection of sanctuary resources, including the conservation of marine biodiversity, and advocates a standard for conservation that is higher than what may be applied elsewhere in the Gulf of Maine. Although no new regulations are part of this plan, the document addresses key issues facing the sanctuary and lays the foundation for restoring and protecting the sanctuary's ecosystem. It provides strategic guidance for management actions for the next five years and focuses those actions on four priority areas: capacity building, ecosystem protection, marine mammal protection and maritime heritage management. The plan can be found on the sanctuary's website at <http://stellwagen.noaa.gov>.



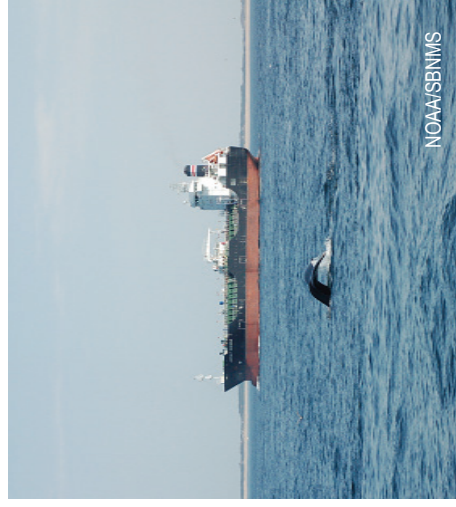
Top Predators and Biodiversity Diminished

A NOAA report, issued in July, indicated that the numbers of Stellwagen Bank National Marine Sanctuary's top-level predators, such as halibut and swordfish, have decreased significantly over the past 100 years. The National Marine Sanctuaries Conservation Series document, "Stellwagen Bank Marine Historical Ecology Final Report," describes fish populations that are resilient, but have suffered declines in numbers and species diversity over time. The report, produced by the Gulf of Maine Cod Project at the University of New Hampshire, presents results of a three-year survey and analysis of historical documents and manuscripts relevant to the marine historical ecology of the sanctuary. The report can be found on the sanctuary's website at <http://stellwagen.noaa.gov>.



Sanctuary/IFAW Provide Ship Speed Feedback to Industry

Year-round, ships travel through Stellwagen Bank National Marine Sanctuary via the shipping lanes to and from Boston or in north-south transits along the coast. For many of those vessels, their tracks take them through North Atlantic right whale seasonal management areas (SMAs), portions of which overlap the sanctuary. For specified times of the year when right whales are present in large numbers, NOAA has implemented mandatory speed restrictions of 10 knots or less. To better understand shipping patterns and to better protect right whales, sanctuary researchers undertook a study using Automatic Identification System data to assess vessel speeds. The results indicate that a large percentage of vessels transiting SMAs in sanctuary waters are not in compliance with the speed limit. In an effort to inform and educate the noncompliant vessel owners and operators, the sanctuary and International Fund for Animal Welfare, co-sponsors of the project, have been sending detailed reports that analyze the ships' tracks, highlighting areas where speeds were greater than 10 knots. The letters also provide calculations that indicate the additional time it would have taken for the vessel to transit the SMA at a compliant speed. For most ships, the difference in transit time between noncompliant and compliant speeds amounts to only a few minutes, but those minutes can be the difference between a ship strike and a whale-safe passage. The work has gained the support of the Massachusetts Port Authority, NOAA Fisheries, NOAA Office of Law Enforcement and the U.S. Coast Guard.



Sanctuary Becomes Center for Endangered Whale Research

Over the past two years, the waters in and around Stellwagen Bank National Marine Sanctuary has become an epicenter for groundbreaking research into the behaviors of endangered whales, particularly North Atlantic right whales and humpback whales. Studies in the spring of 2010 focused on the abundance and distribution of zooplankton prey and the behaviors of tagged right whales. Passive acoustic monitoring in the sanctuary from 2008 through 2010 has provided a sound "picture" of right whale densities, ranging from small groups in the winter to more numerous socially active aggregations in the spring. Data from prior years' humpback tagging cruises have been analyzed to reveal previously unknown behaviors, which will be described in soon-to-be-released scientific papers.



AIS Exhibits Open in Provincetown and Rockport

With a live monitor that displays large vessel traffic and a widescreen television screen showing two four-minute videos, two popular visitor centers now bring information about the Automatic Identification System (AIS) and sanctuary efforts to protect great whales to the public. AIS is an international maritime safety and security system that requires large vessels of more than 300 gross tons to send continuous messages about their identity and location, along with a larger suite of information about their trips. Antennae in Rockport and Provincetown, along with one at the sanctuary's headquarters in Scituate, provide the U.S. Coast Guard, administrators of the AIS system, complete coverage of large ship traffic in Massachusetts Bay, Cape Cod Bay and the entire sanctuary. As a benefit to installing AIS antennae on their installations, Cape Cod National Seashore's Province Lands Visitor Center and Halibut Point State Park received the new modular sanctuary-produced exhibits in July. Ship tracks are displayed in the exhibit monitors. Information about how the sanctuary is using AIS data for whale conservation is detailed in the exhibit's accompanying video programs. Both visitor centers are free and open from late spring through the fall.



Maritime Heritage Cruise Targets Seven Historic Shipwrecks

Over a two day period in August 2010, a Stellwagen Bank sanctuary research team visited seven historic shipwrecks, ranging from fishing boats to wooden-hulled sailing vessels with cargoes of coal or stone, and gathered High Definition still and video imagery with the science class ROV *Kraken 2* (K2) remotely operated vehicle (ROV). Sanctuary archaeologists joined staff from the Northeast Undersea Research Technology and Education Center at the University of Connecticut (NURTEC) to characterize newly located archaeological sites. Several shipwrecks without obvious cargo remains may be the oldest vessels yet located in the sanctuary. Preliminary research on these vessels indicates that the artifacts and vessel construction features date to the early nineteenth century. This was the sixth Stellwagen Bank sanctuary maritime heritage ROV cruise with NURTEC since 2002; the partnership has successfully investigated 28 shipwreck sites. Archaeologists used data from these cruises to successfully nominate four archaeological sites to the National Register of Historic Places.



Whale SENSE Educates, Supports Responsible Companies

Whale SENSE, a voluntary education and recognition program promoting responsible whale watching and marine stewardship, kicked off its first full year in 2010. Stellwagen Bank National Marine Sanctuary partners with NOAA Fisheries Service's Northeast Regional Office and the Whale and Dolphin Conservation Society in the development and implementation of this program. Through training sessions and support materials, the project partners assist cooperating companies in augmenting the educational resources of naturalists and enhancing the operational standards of vessel personnel to reduce potential incidents of whale harassment or harm. The program was developed with the cooperation of and input from whale watching companies. In 2010, four Massachusetts companies that visit the sanctuary joined Whale SENSE, along with one company in Virginia and one in New Hampshire.

